Mr. Chairman, it is a pleasure to meet with the Subcommittee on Water and Power Resources at the start of the 94th Congress. I add my welcome to the new members of the committee and look forward to developing a mutual understanding through which our day-to-day working relationships will be enhanced.

My presentation will focus primarily on providing the new members with information for use in their decision-making processes. We are prepared to enlarge upon any topic which the chairman or members of the committee may desire.

The Federal Reclamation program was established 73 years ago to assist in the development of the West. The basic mission is to assist the States, local governments, and other Federal agencies to stabilize and stimulate local and regional economies, enhance and protect the environment, and improve the quality of life for mankind, all through development and management of water and related land resources. Our general authorities extend to the 17 contiguous Western States and Hawaii, however, by specific authority and use of funding other than from the Reclamation fund, we can and do provide assistance elsewhere in the Nation and the World. We provide technical assistance overseas on a reimbursable basis through the Agency for International Development and through international organizations such as United Nations, World Bank, Organization of American States, and by direct governmental advances.

Reclamation projects, through an evolutionary multiple-purpose concept, authorized by the Congress provide for some or all of the following purposes: (1) municipal and industrial water service, (2) hydroelectric power generation, transmission, and marketing, (3) irrigation water service, (4) water quality improvement, (5) fish and wildlife enhancement, (6) outdoor recreation, (7) flood control, (8) navigation, (9) river regulation and control, and (10) related uses. Major program objectives are to: (1) investigate and develop plans for the regulation, conservation, management, and utilization of water and related resources, including basin-wide water studies and new sources of fresh water supplies, power capacity, and energy, (2) design and
construct authorized projects, repair and rehabilitate existing projects, and administer loans and grants under the loan program, (3) operate and maintain Bureau constructed facilities which are not transferred to local organizations, review the operation and maintenance of all Bureau-built facilities, and administer water and power marketing contracts, and (4) conduct mission oriented research including weather modification to maximize use of resources.

Unlike other public works programs, the Reclamation program has from the beginning, been based on the principle of repayment by direct beneficiaries (water users organizations, conservancy districts, municipalities, power customers, and other agencies). Repayment of the public investment is designed to recover all statutorily reimbursable costs which constitute over 86 percent of the total investment. As provided by law, some or all costs assigned to specific functions such as flood control, recreation, and fish and wildlife enhancement are nonreimbursable. Repayment of costs is greater in Reclamation than in any other Federal resource development program.

This subcommittee plays a major role in establishing the authorities, policies, accomplishments, and success of the Bureau of Reclamation program. Usually, initial project studies are of an appraisal or reconnaissance nature and are intended to reveal whether more detailed investigations are warranted to establish feasibility.

On the basis of appraisal studies we may request congressional authority to proceed with feasibility level investigations. Feasibility studies, when so authorized, are performed using the established principles and standards for planning water and related land resource projects. Contingent upon the findings of the feasibility study, a proposal may be submitted to the Congress for approval and authorization of construction. Legislation pertaining to the Reclamation program is handled by the Interior and Insular Affairs Committees of the Congress, while requests for appropriations go through the Public Works Subcommittees on Appropriations.

OPERATION AND MAINTENANCE

Reclamation's longstanding policy has been to transfer to water user organizations the single purpose irrigation facilities. In fact, Reclamation operates and maintains, on a permanent basis, only power
facilities and other so-called reserved works on multipurpose projects. All facilities must be operated and maintained in a manner to protect the Federal investment and assure that they continue to serve their intended purposes safely and efficiently.

PLANNING

The primary objective of planning is to formulate project plans which will be responsive to national needs and goals; adequately protect, preserve, or enhance the environment, and maximize regional economic goals and social well-being.

Rapid shifts in national priorities have resulted in several unresolved questions:

1. To what extent will there be an increased demand for natural fibers as a result of the reduced availability of synthetic petroleum-base fibers?

2. Will there be a growing international requirement for American food products in the long-range perspective?

3. Is there any reason why it is not in the national interest to utilize our renewable agricultural production potential as an economic and social tool?

4. Is there reason to believe that an ample and reasonably priced food supply for all Americans is not a worthy national goal?

5. Can water resource development through public works projects be responsive enough to become an effective means of achieving current national goals?

6. To what extent will existing or new water supplies be required for (1) the production of energy; (2) for cooling in nuclear and other powerplants; (3) and for development of the West's oil shale and coal for gasification and liquefaction?

These and related questions require prompt attention. We in the Bureau are making adjustments in our planning program, where possible, to reflect the latest priorities for development. Our programs will give special attention to improving existing water resource management.
RESEARCH

Reclamation's research program is mission oriented and is directed to solving immediate problems and developing new technologies associated with the conservation, development, and use of the water and related land resources of the West.

Laboratory and field research efforts are focused on improved irrigation efficiency, water conservation, and water quality improvement. Emphasis also is given to improved power generation-transmission efficiency and reliability.

A major research thrust in atmospheric water resources management has yielded promising information which could be used to overcome the relative inefficiency of nature in producing precipitation at the times and places where it can be better utilized for man's benefit. The ecological impacts of water development are being analyzed to evaluate the effects of water projects and water management operations on local areas and river basins, and to develop improved techniques for mitigation and enhancement. One of Reclamation's newest research efforts involves the Energy Research and Development Program, including geothermal and pumped-storage research. This program is an integral part of the national effort to achieve a capability for energy self-sufficiency.

CONSTRUCTION

Since its establishment in 1902, over 160 water resource development projects or units of projects have been constructed by Reclamation for a national investment of about $6 billion. Our fiscal year 1975 construction program gives high priority to projects with early completion dates whose major purposes are power, municipal and industrial water, drainage works, and system protection.

During fiscal year 1975, construction activities continue on 75 projects or major units of projects located throughout the 17 Western States. About 70 percent of the total Reclamation appropriations in fiscal year 1975 was for construction.

Projects with major construction programs underway include the Columbia Basin Project, Washington; Central Valley Project, California; Central Arizona Project, Arizona-New Mexico; Colorado River Basin Salinity Control Project, Arizona-California; Fryingpan-Arkansas Project, Colorado; Teton Basin Project, Idaho; and the Garrison Diversion Unit, Pick-Sloan Missouri Basin Program, North Dakota.
In this time of concern about our Nation's energy, we are pleased to report that construction is proceeding well on the Columbia Basin Third Powerplant at Grand Coulee Dam on the Columbia River. The first of six units of unprecedented size is scheduled to begin generating power in August 1975. The Third Powerplant is an addition to the existing facilities, and will add 3.9 million kilowatts to the 18 units presently operating which have a capacity of 2.3 million kilowatts.

In addition to the power producing capabilities of the Columbia Basin Project, approximately 1,000,000 acres of land has the potential for irrigation development. Over one-half of those lands have been developed and are producing needed food for the Nation and the World.

Expansion of the Central Valley Project in California, is continuing. The project consists of an integrated system for water storage, regulation, conveyance, and distribution. The project will provide full irrigation to 258,000 acres, supplemental water to 2,289,000 acres, deliver nearly 354 billion gallons of water annually for municipal and industrial use, and generate about 1.6 billion kilowatts of clean hydroelectric power. Flood control, recreation, navigation, and fish and wildlife protection are also important functions of the project. More than 200 different commercial crops are grown on the project, including cereal, field, forage, nursery, seed and truck crops, nuts, vines, and fruits.

Construction continues on major elements of the Central Valley Project, including the Westlands Irrigation Distribution System, the Tehama-Colusa Canal, the Pleasant Oaks Distribution System, and the Auburn Dam. The excavation and foundation treatment is underway for the Auburn Dam, a major structure located on the American River in the east-central part of the Sacramento-San Joaquin Valley. Also construction may be started on the San Felipe Division during fiscal year 1975.

The Columbia Basin and Central Valley Projects are but two of the on-going projects in our construction program. The remaining 73 are of varying size and are scattered throughout the 17 Western States.

Reclamation construction activity provides for increased utilization of manpower from minority groups under the provisions of the Federal equal employment opportunity program. For example, fifteen members of the Navajo Tribe are employed by Reclamation on the Navajo Indian Irrigation Project and from 20 to 50 Navajo are employed by contractors, depending on the volume of construction activity underway at any given time.
FOREIGN ACTIVITIES

The international renown of Reclamation in the field of water resource development has resulted in numerous requests for technical assistance to other nations both directly and through such agencies as the Agency for International Development (AID), Department of State, World Bank, and the United Nations. Assistance includes sending individuals or teams abroad on various engineering or resource development advisory assignments, or training foreign visitors in pertinent water resource development techniques and procedures. Financing is provided by the requesting organization or the recipient country.

ENVIRONMENTAL ENHANCEMENT

Water resource development projects have many positive environmental effects. When water management practices regulate and augment low flows of rivers and streams, decrease erosion, prevent flood, eliminate waste of water, and in many instances change deserts into gardens where man can comfortably live and prosper, the result is betterment of environmental conditions.

ACCOMPLISHMENTS

The accomplishments of the Reclamation program are many and varied, reflecting the diversified nature of Reclamation projects. Our accomplishments stress a primary goal of balancing water supply with water requirements to provide for the needs of people.

The United States continues to serve as the "breadbasket of the world" feeding not only its own people in a manner unprecedented in human history, but helping to satisfy the food needs of much of the rest of mankind as well. The crop production occasioned by national investment in the Reclamation program would satisfy the annual needs of over 32 million people. The wide variety of high-quality, high value crops produced on Reclamation served lands provides many of the specialty crops that characterize a well-balanced diet.

These crops are produced on 9.2 million acres of irrigated land. The gross crop value, in 1973, was $3.9 billion. The cumulative gross value of all crops produced on Reclamation projects over 67 crop reporting years totals about $40.9 billion. This cumulative value is over seven times the total plant-in service investment of $5.8 billion.
The Bureau of Reclamation in 1973 marketed nearly 50 billion kilowatt-hours of electric energy from its hydroelectric plants which neither consume nor pollute the water passing through the turbines.

The electric energy produced at Reclamation operated hydroelectric plants only, is sufficient to supply the needs of about 5 million residential customers. Assuming three people per residential family, this would be equivalent to the residential requirements of the cities of San Francisco, Chicago, Dallas, Washington, D.C., and New York.

Production of an equivalent amount of energy from alternative fossil fuels resources would have required some 66 million barrels of oil, 17 million tons of coal, or 400 billion cubic feet of natural gas.

Supplying water for municipal and industrial use continues to be an important function of the Reclamation program as population, business, and industry continue to expand in the West. In 1973, Reclamation project facilities delivered over 600 billion gallons of water for municipalities and industries, providing most of the water needs of a population of about 15 million. In addition, water conveyed for other nonagricultural uses totaled over 100 billion gallons.

Recreational use at our recreation areas totaled over 56 million visitor days, with 251 reservoirs or recreation areas being provided for this use. Great numbers of people are attracted by the breath-taking water-oriented opportunities for recreation such as: fishing, sailing, powerboating, picnicking, water skiing, watching wildlife in its native habitat, viewing a beautiful lake, or watching the sun set behind the tree-lined horizon of a placid reservoir. The desire for tranquility and a change of pace has resulted in increasing numbers of visitors at reservoirs, lakes, and canals created by Bureau of Reclamation facilities.

Probably the least-heralded feature of many multipurpose dams and reservoirs on Bureau of Reclamation projects is their ability to control flood waters. Virtually all regulating facilities on Bureau of Reclamation projects provide some flood protection even though they may not have been initially authorized nor designed for that function. Significant flood control benefits continue to be realized from our operations in the 17 Western States, totaling almost $176 million in 1974.

In conclusion, I would like to reiterate that the Reclamation program is involved with all sources of water (surface, ground, atmospheric, and sea water) and to emphasize that through appropriate development and management of water for all functions throughout the 17 contiguous Western States, the Reclamation program is bolstering, stabilizing,
and expanding local, regional, and national economies; is enhancing and protecting the environment; is improving social and cultural benefits; and in total is improving the quality of life for mankind.

Thank you, Mr. Chairman.