

## BUREAU OF RECLAMATION

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people.

During 1996, Reclamation met numerous goals, such as implementing test flows from Glen Canyon Dam to protect the Grand Canyon ecosystem, continuing to preserve our infrastructure through the Safety of Dams Program, and, as part of Vice President Gore's National Performance Review, conducting a power management laboratory. Reclamation examined and is taking appropriate steps to maintain effective design and construction capabilities within Reclamation and to maintain the safety and security of its projects. Significant effort has been devoted to ensuring that Reclamation fully addresses the requirements of the Government Performance and Results Act. The reorganization of Reclamation has been solidified, and it continues to seek innovative ways to carry out its mission of managing, developing, and protecting water and related resources.

Reclamation's work force has decreased by more than 1,600 employees to 6,250 in September, 1996, representing a 22 percent reduction and far exceeding the Administration's 5 percent goal. Workforce reductions were accomplished largely through buyouts and attrition.

In 1996, Reclamation published a final environmental impact statement on ways to implement the acreage limitation and water conservation provisions of the Reclamation Reform Act of 1982 (RRA). Revised rules, reflecting the document's preferred alternative and responding to public comment, were published in December 1996. One major change reduced the paperwork burden on many landholders by raising the acreage threshold for submitting annual forms to receive Federal project irrigation water. Reclamation also rewrote and reorganized the rules and RRA forms to make them clearer and less burdensome to the public, estimating that the total number of forms submitted and burden hours on the public will be reduced by 22 percent. Reclamation also chose to implement conservation plan requirements for districts through a new cooperative field services program rather than increased regulation.



*Reclamation Commissioner Eluid Martinez addresses the plenary session at Reclamation's third Innovations Conference in San Antonio, Texas (photo by Reclamation).*

### Glen Canyon Test Flows

In March 1996, Secretary Bruce Babbitt opened the hollow jet valves to initiate Reclamation's controlled flood on the Colorado River by releasing water from the Glen Canyon Dam to recreate seasonal high flows. The Beach/Habitat-Building Test Flow, which received national attention, represents a new river management technique for maintaining and enhancing the Grand Canyon's ecological health while providing the water storage and power generation vital to life in the West.

### Dam Safety Program

The goal of Reclamation's Dam Safety Program is to identify any structures which pose unacceptable risks to public safety and welfare, property, the environment, and cultural resources and to take appropriate corrective actions to reduce or eliminate risks in an efficient and cost-effective manner. In the United States and its territories, there are 2,131 federally owned dams. Reclamation has 475 dams and dikes, of which 379 could endanger people and property downstream if a failure occurred.

In 1996, \$64.8 million was spent in the Dam Safety Program. Accomplishments of the program included inspection of 116 Reclamation dams and monitoring performance at all dams; evaluation of deficiency concerns at 53 dams through data collection and engineering analyses; preparation of performance parameter documents for 41 dams; completion of

structural modifications at four dams with modifications underway at nine other facilities; conducting corrective action studies and final design activities at 51 dams; and installation of early warning systems at three dams, with installation underway at nine others.

## Title Transfer

As part of the second phase of the National Performance Review, Reclamation has undertaken a program to transfer title of those facilities that do not have national significance and that could be efficiently and effectively managed by non-Federal entities.

During 1996, certain facilities of the Rio Grande Project and the Vermejo Project, located in New Mexico, were transferred under special authorities. Public Law 102-575 authorized the Secretary of the Interior to transfer title to Rio Grande Project irrigation and drainage facilities, valued at \$16.6 million, to the Elephant Butte Irrigation District in New Mexico and El Paso County Water Improvement District No. 1 in Texas. Title was transferred in January 1996. The Vermejo Project title transfer, including property and water rights valued at \$2.5 million, was accomplished in June, as directed by legislation passed in 1980.

## Disaster and Drought Response

In 1996, Reclamation provided assistance to the Federal Emergency Management Agency (FEMA) in three disaster response operations -- in Pennsylvania, Oregon, and North Dakota. Reclamation sent 86 employee volunteers to Pennsylvania, 15 to Oregon, and 35 to North Dakota for between 2 and 6 months to prepare damage survey reports and assist in disaster response operations.

The 1996 drought in the Southwest was the worst in 25 years. In response to this and recurring droughts throughout western history, Reclamation joined the Western Governors Association and other governmental agencies to form a Drought Policy Commission Group. The group's purpose is threefold: to improve Federal assistance to affected States; to work with State, Federal, and private entities in developing drought assessment criteria and response assistance; and to share solutions and relief measures throughout the West. To date, Reclamation has supported this effort by providing funding, key personnel to serve on the coordination group, and technical and design assistance preparing a drought response action plan.



*Irrigation in eastern Washington's Columbia Basin Project is an economic mainstay for the region (photo by Reclamation).*

Reclamation responded to drought conditions in the Rio Grande Basin in 1996. In addition to successfully coordinating and negotiating an adequate water supply for the endangered Rio Grande silvery minnow and the agricultural water users in the Middle Rio Grande Valley, Reclamation worked with local districts to improve water conveyance and monitor and coordinate water use.

## Water Conservation and Recycling

Water conservation continued to be a high agency priority in 1996. Reclamation, which is the largest wholesale supplier of water and manages 45 percent of surface water in the West, continued its partnership efforts to encourage all who receive Reclamation water to use it wisely. Reclamation provided education on water conservation, supplied technical and financial assistance to districts and water users, and conducted research on emerging water efficient technology.

A new initiative, the Water Conservation Field Services Program, was introduced in 1996. Under the Field Services Program, Reclamation will work in partnership with States and water districts to provide technical and financial assistance to implement and coordinate conservation efforts. The program also provides active outreach to districts, including educational workshops and training opportunities in water management and conservation planning.

In 1996, Reclamation focused on assisting States and communities with water management through promotion of water recycling efforts. Reclamation also completed the first phase of a precedent-setting Southern California

Comprehensive Water Reclamation and Reuse Study, a partnership effort with several California entities to assess the long-range water supply and water reclamation and reuse potential in a seven-county area. This study is the first time that Reclamation has taken a broad based look at water recycling instead of assessing on a project by project basis.

## Hydropower

Clean, efficient, and renewable energy from hydroelectric facilities significantly contributes to the Nation's economic and environmental well-being. Reclamation is the Nation's second largest producer of hydroelectric power and the ninth largest power producer in the United States. Reclamation powerplants range in size from the smallest at 350 kilowatts to Grand Coulee's 6.5 million kilowatts.

In 1996, Reclamation's 58 hydroelectric powerplants had a total of 192 generating units with an installed generating capacity of 14.3 million kilowatts. These powerplants generated more than 53 billion kilowatt hours of hydroelectric power -- enough to save the equivalent of about 90 million barrels of crude oil.

Power revenues from Reclamation's facilities pay not only the costs allocated to power but also provide for repayment of the Government's investment. In 1996, Reclamation's power program (which includes one coal-fired plant and revenues from transmission charges and power rights) produced revenues totaling about \$875 million.

## Research and Technology

The Research and Technology Transfer Program addresses mission-related needs and emphasizes cost sharing with other groups to support research and development in water resources management, environmental protection, materials engineering, and hydroelectric power generation and transmission. Some 1996 accomplishments included improving computerized control systems for Reclamation powerplants and developing and testing new, lower-cost water treatment technologies through the Water Treatment Technology Program and Yuma Water Quality Improvement Center.

### Working Together

*In an era of smaller government, working together to get the job done also means quicker results.*

*Such was the case with the several Interior agencies who were called upon to help people and local governments recover from major disasters such as floods and earthquakes.*

*In 1996, the State of Pennsylvania incurred tremendous damage as a result of flooding. At the request of the Federal Emergency Management Agency, the Bureau of Reclamation was called upon to assist in assessing the damage from floods that caused every county in the State to be named a disaster area. **Jan Henry**, Reclamation's Disaster Response Program Manager, knew that FEMA's request was going to stretch Reclamation's capability to support FEMA in this and future emergencies. BOR employee **Chris Duke**, working 12 and 14 hours seven days a week, coordinated the arrival of the 82 Reclamation employees who began arriving on the scene. Henry contacted **Terry Wong**, NPS chief of engineering, and nine NPS engineers and landscape architects and three BLM staffers were soon on their way to the devastated State. Together they quickly assessed the damage and the counties were able to get financial assistance.*

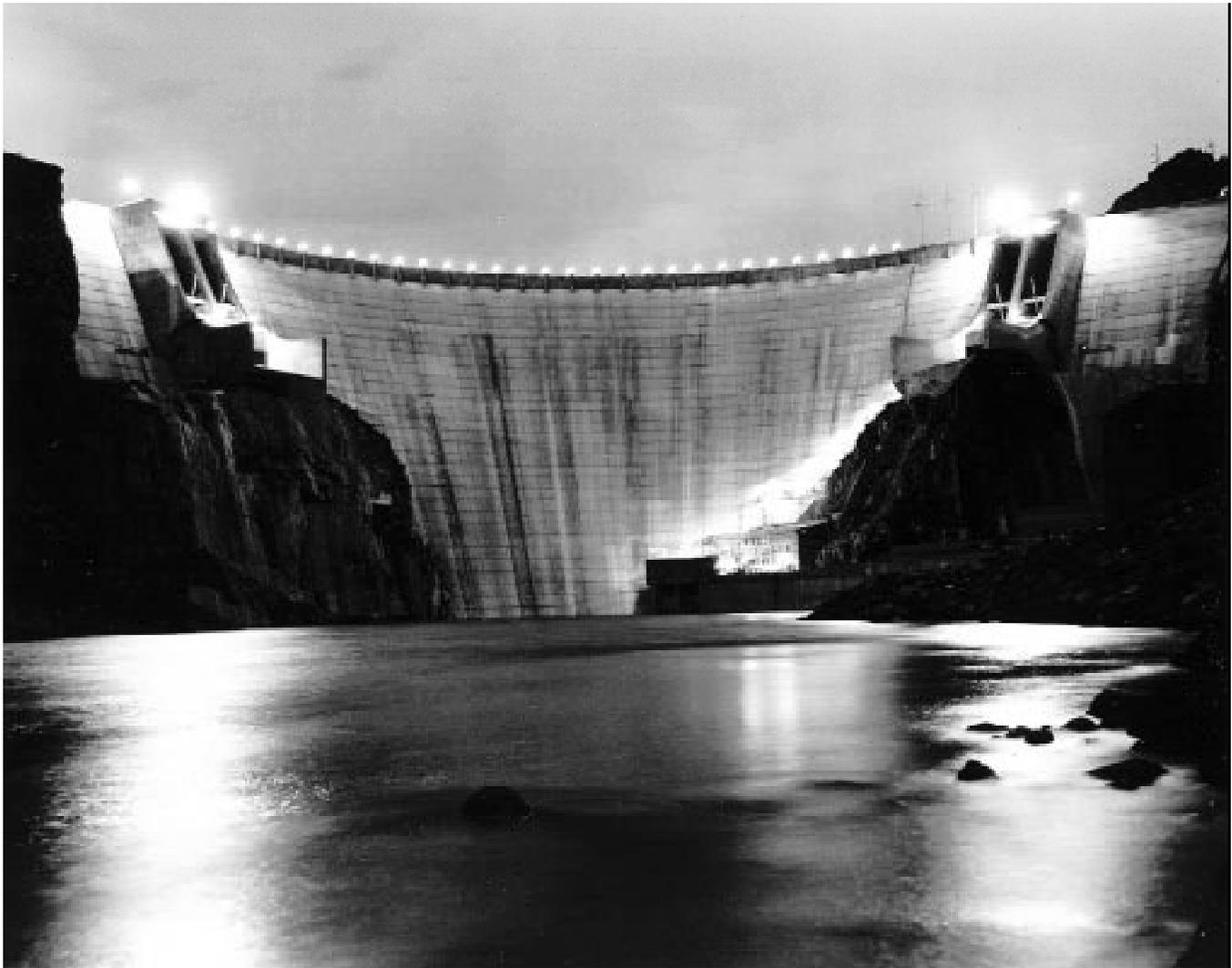
*In addition, BOR Commissioner **Eluid Martinez** was in Harrisburg inspecting the damage to the historic Walnut Street Bridge. "There was a tremendous volume of ice coming down the swollen Susquehanna River. They could have lost all of their bridges, not just one." For Reclamation, this was a first. Reclamation has been operating nearly 100 years building monumental structures like Hoover Dam that bring water to the arid west. But never in its long history has the agency been to Pennsylvania.*

*In addition to participation from the Interior Department, 35 inspectors from the Tennessee Valley Authority, 10 disaster specialists from FEMA and over 100 employees from the U.S. Army Corps of Engineer assisted with recovery operations. Welcome to the new era of smaller government, where agencies will be increasingly called on to do things they have never done before.*

## Partnerships with Native Americans

Reclamation continued to meet its trust responsibilities to Native Americans, spending nearly \$97 million in 1996. Below are several examples.

- Mni Wiconi Project -- A groundbreaking ceremony for construction of the first component of the Mni Wiconi water project took place in July, north of Fort Pierre, South Dakota. The municipal, rural, and industrial water system will serve the Pine Ridge, Rosebud, and Lower Brule Indian Reservations as well as seven counties in southwestern South Dakota.



*Theodore Roosevelt Dam, Central Arizona Project, was re-dedicated in April, 1996, following completion of Safety of Dams modifications (photo by Reclamation).*

- Northern Cheyenne Tongue River Dam Project -- In partial fulfillment of the Northern Cheyenne Indian Reserved Water Rights Settlement Act of 1992, the Secretary of the Interior entered into a cooperative agreement with the State of Montana for the planning, environmental compliance, and design and construction of a new spillway and raised crest for the State-owned Tongue River Dam.
- Funding Agreements -- Interior's first non-BIA Self Governance Annual Funding Agreements were implemented by Reclamation with the Salt River Pima-Maricopa Indian Community and the Gila River Indian Community in Arizona. The agreements enable the tribes to plan, design, and construct their Central Arizona Project (CAP) distribution systems with CAP appropriated funds.

## **Central Valley Project Improvement Act**

Implementation of the California Central Valley Project Improvement Act (CVPIA) remained on a fast track in 1996, highlighted by an effort to develop a consensus-based process for finding solutions to issues that have developed during implementation. A number of the issues have been resolved and the consensus process will continue in 1997.

## **International Affairs**

In 1996, the International Affairs Program continued its goals of furthering U.S. foreign policy; enhancing public health and supporting sustainable development in developing countries; supporting U.S. private sector



*A 505-foot long, 255-foot wide, 3,000-pound American flag "flies" from the face of Hoover Dam on May 1, 1996, as part of the ceremonies surrounding the arrival of the Olympic torch as it crossed America prior to the 1996 Olympic Games in Atlanta (photo by Reclamation).*

participation in the international marketplace; and obtaining improved technology for the benefit of Reclamation water users and the United States through reimbursable technical assistance, technical cooperation and technology exchange, and training foreign governments. Reclamation also continued to assist the Secretary with his responsibility for administering U.S. territories and commonwealths by providing technical assistance in the Virgin Islands.

During 1996, Reclamation's International Affairs program generated \$5.5 million in reimbursable work. Under ongoing multi-year programs, reimbursable technical assistance was provided to the countries of Brazil, Saudi Arabia, and Taiwan, and to the U.S. territory of Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands. In addition, short-term technical assistance in various areas was provided to Argentina, Belize, Brazil, Canada, India, Paraguay, and Portugal. Technical cooperation and technology exchange efforts are ongoing in Israel, the People's Republic of China, and Spain. The International Affairs

Program also provided training to approximately 50 trainees from 9 countries and made arrangements for over 700 visitors from 25 countries to visit Reclamation facilities.

## Recreation

Reclamation's investment in outdoor recreation has resulted in improvements that have increased the value of the public's investment as well as improving the recreation experience. The majority of the public recreation areas on Reclamation projects are managed by 212 non-Federal partners. These recreation areas provide opportunities for boating, fishing, swimming, picnicking, and other outdoor activities. About 308 recreation areas on Reclamation projects in the 17 Western States encompass nearly 4.9 million acres of land, 1.7 million surface acres of water, and nearly 13,000 miles of shoreline. Annually, about 87 million people visit recreation areas on Reclamation projects.

In 1996, Reclamation provided \$1.5 million in cost sharing to provide or improve recreation facilities at projects in Arizona, Utah, Colorado, South Dakota, Wyoming, Oregon, Washington, Idaho, New Mexico, and Oklahoma.

## Cultural Resources

Under Federal law, Reclamation has responsibility to preserve and protect cultural resources on lands it manages. This responsibility may include surveying sites and documenting, excavating, or otherwise preserving cultural resources. Cultural resource activities in 1996 included:

- Surveyed approximately 100 miles of shoreline at Lake Franklin D. Roosevelt behind Grand Coulee Dam in Washington State.
- Completed a traditional cultural property report summarizing the cultural resources concerns of 26 tribes for the Animas-La Plata Project in Colorado and New Mexico.
- Continued working with National Park Service and eight tribes to implement the 1994 Programmatic Agreement for managing cultural resources in the Grand Canyon.



*Volunteers build a trail adjacent to a wetlands in the new Boulder City, Nevada, Veterans Memorial Park. The wetlands is being created by Reclamation, City of Boulder City, and Nevada Department of Wildlife (photo by Reclamation).*

- Developed a geographic information system model for cultural resources covering a 3,300 square-mile area on the American River in California.
- Developed two cultural resources World Wide Web sites, one of which features information about Reclamation's fine art collection.

## Operations

Water deliveries by Reclamation in 1996 generally were average to above average, though drought conditions occurred in certain locations. Areas for which water delivery information was available at this printing include the Sacramento River and Colorado River basins. Total Sacramento River basin deliveries were approximately 7.2 million acre-feet compared to the historic average of 7 million acre-feet. Colorado River water deliveries to the Lower Basin States were about 8.1 million acre-feet, compared to the minimum allotment of 7.5 million acre-feet. In the Upper Colorado River basin, deliveries from Lake Powell were 11.3 million acre-feet, or about average.

## Improving Efficiency

As required by the National Energy Conservation Policy Act, Reclamation is striving to reduce energy consumption at its facilities by 20 percent by the year 2000 and is well on its way by reaching an 18.9 percent reduction in 1996. Conservation measures are applied on

a daily basis by informing employees of conservation practices, purchasing energy efficient equipment, replacing fixtures with newer models, entering into demonstration project partnerships, and improving existing buildings to increase energy efficiency.

## Water Delivery Efficiency

In 1996, Reclamation engaged in several programs to increase efficiencies of water delivery. Each February, Reclamation conducts a "Water Management Workshop" for irrigators and project operators to provide training and review efficient methods for operating and maintaining water systems. Reclamation also conducted an integrated resource management workshop for Reclamation's decision makers. The objective of this workshop was to provide the river operations decision-makers with tools and perspectives for incorporating the needs of multiple resources and publics in operating Reclamation's projects.

Reclamation routinely examines water conveyance and distribution systems. As part of the examinations of these systems, water management aspects are evaluated to identify deficiencies and recommend improvements relative to operating and delivery efficiencies. During 1996, a total of 39 water systems were evaluated. In addition, 25 specific river basin programs that include the objective of increasing water delivery efficiencies were new or ongoing in 1996.

## Power Generation Efficiency

Reclamation improved power generation efficiency in 1996 by modifying the Minidoka Powerplant in Idaho. Through 1996, \$38.2 million has been spent, with a \$41.5 million estimated final cost on improving the Minidoka Powerplant. Another \$7 million was spent in 1996 to replace transformers at Hungry Horse Dam in Montana. Reclamation also signed a contract with a group of Central Valley Project preference power customers to fund the update of generators at Shasta Powerplant, California, at a cost of \$9.1 million.

## Status of the Government Performance and Results Act Implementation

Implementation of the Government Performance and Results Act (GPRA) got off to an early and enthusiastic start with the Commissioner's appointment of a GPRA

Executive Workgroup to develop an implementation approach. This group of executives, working with Reclamation staff, developed a comprehensive plan for implementing each GPRA requirement. One of the first implementation actions was development of Reclamation's vision and strategic objectives by Reclamation's executive management team. The vision and objectives were shared with Reclamation employees in a memorandum from the Commissioner in which he also expressed his endorsement of GPRA principles, explained their significance to Reclamation, and called for employees' active participation in implementation initiatives.

## Customer Service

Reclamation issued a customer service plan in 1994 to guide its relationship with customers. The specific services and programs targeted in the plan parallel the tasks and activities identified in the new Reclamation budget structure under the following categories:

- Water and Energy Management and Development
- Land Management and Development
- Fish and Wildlife Management and Development
- Facilities Operations
- Facilities Maintenance and Rehabilitation
- Policy and Administration

Customer surveys have been conducted in various areas throughout Reclamation. In response to customer concerns, Reclamation is providing additional opportunities for early input into management actions and program decision-making.

As a renewable, reliable, and cost-effective energy source, hydropower plays a vital role in the electric utility industry. In response to Vice President Gore's National Performance Review, Reclamation was selected by the Department of the Interior to conduct a Power Management Laboratory beginning in fiscal year 1995 and continuing through 1996. This customer-driven laboratory examined the major components of Reclamation's power program with the goal of making it the "best in the business."

This aggressive effort established benchmarks and compared Reclamation's performance internally and with industry leaders. In this analysis, Reclamation



*Culinary arts program students at the Fort Simco Job Corps Center, which Reclamation administers under an interagency agreement with the Department of Labor (photo by Reclamation).*

evaluated its performance and established goals and actions that will significantly improve Reclamation's power program.

Reclamation also surveyed and talked with customers, employees, natural resources managers, and other industry leaders concerning the most important issues in the power program. This process equipped the agency to develop recommendations and implement needed changes.

Through the survey, customer concerns were identified. Improving communication, increasing participation, and maximizing cost effectiveness are among the first steps the agency is taking to improve customer service. Reclamation has developed a power program supplement to Reclamation's Customer Service Plan, involved customers and employees in the Laboratory Management Team and work groups, developed a public outreach program, increased participation in industry meetings, and used electronic media to share information.