

BUREAU OF RECLAMATION

The Bureau of Reclamation is the largest supplier and manager of water in the 17 western States, delivering water to 31 million people for agricultural, municipal, industrial and domestic uses. Reclamation is the nation's second largest producer of hydroelectric power, generating nearly \$1 billion in annual power revenues; and its multipurpose projects also provide substantial flood control, recreation, and fish and wildlife benefits.

Over the past 95 years, Reclamation has developed safe and dependable water supplies and hydroelectric power to foster settlement and economic growth in the West. In recent years, Reclamation has moved from development to management of these important resources. In cooperation with State, Tribal, local, and other entities, Reclamation encourages development of solutions for water supply problems that are consensus based, cost effective, and environmentally sound.

Reclamation Facilities and Benefits

Facilities on Reclamation projects include 348 reservoirs, 58 hydroelectric powerplants, and more than 300 recreation areas. Reclamation operates its facilities to promote improved water use efficiency and cost effectiveness, while maintaining system reliability and meeting all contract commitments for water and power.

Hydroelectric Power

In general, Reclamation's hydroelectric power production is directly proportional to the amount of water avail-



Irrigated acreage in California (photo by Reclamation).

BOR Mission

"To manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people."

able each year. Power production rose from about 40 million megawatt hours in 1995 to more than 46 million megawatt hours for the first 10 months of 1997.

Reclamation is also using available water more efficiently to generate hydropower by improving operating techniques and equipment. The effects of unit uprating and efficiency increases over the past 20 years have added more than 2,000 megawatts of power capacity or the equivalent of building another Hoover Powerplant.

As a renewable, reliable, and cost-effective energy source, hydropower plays a vital role in the electric utility industry. As part of Vice President Gore's National Performance Review, Reclamation was selected for its Power Management Laboratory. In April 1997, the laboratory team received a "Hammer Award" for government excellence. The Laboratory report, *Future Generations: A New Era of Power, Performance, and Progress*, was released in March 1997. The report notes that the Federal power wholesale rate is approximately two-thirds the industry average and that Reclamation's average production costs are significantly lower than the industry average.

Dam Safety

Many maintenance and rehabilitation activities help sustain facilities in a safe and operable condition. The goal of Reclamation's Dam Safety Program is to identify all structures that pose unacceptable risks to public safety and welfare, property, the environment, and cultural resources and take appropriate actions to reduce or eliminate risks in an efficient and cost-effective manner.

Throughout the 17 Western States, Reclamation has 464 dams and dikes, of which, 378 would endanger people if a failure occurred. Approximately half of



Commissioner Eluid Martinez talks with Tribal members at the dedication of a cooperatively developed groundwater well on the Havasupai Reservation, Arizona (photo by Reclamation).

these structures are more than 50 years old. In addition, approximately 90 percent were built before many of the state-of-the-art design and construction practices in use today. As structures age, continued safe performance becomes a greater concern. In fiscal year 1997, \$74.3 million was expended in the Dam Safety Program.

The Commissioner's independent peer review, completed in 1997, concluded that Reclamation's Dam Safety Program is effective. The review also offered valuable recommendations, which are currently being evaluated and implemented.

Flood Control

Reclamation facilities helped prevent flood damages during the record floods of 1997. In California, Central Valley Project dams and reservoirs played an important role in reducing the effects of the January 1997 floods. Shasta, Folsom, New Melones, and Friant Dams were operated to reduce peak flows in downstream channels and significantly reduced property losses.

During the spring and summer, Reclamation reservoirs in the Upper Missouri River basin helped control record flood runoff. Reclamation facilities were credited with reducing downstream flood damage by more than \$100 million.

Assistance to Native Americans

Reclamation assists Indian Tribes in developing and managing their water resources to promote economic self-sufficiency and improve their standard of living.

In 1997, Reclamation continued construction of the Mni Wiconi Project rural water system, which will serve parts of nine counties in central South Dakota, including the Pine Ridge Indian Reservation. Work on the \$17 million water treatment plant began in August 1997 and will be completed in 1999. Total fiscal year 1997 funding for the Mni Wiconi Project was \$26.6 million.

The agency also provided funding and technical assistance for operating water systems on three Indian Reservations in North Dakota, administering three cooperative agreements that totaled nearly \$2 million in 1997.

Water Conservation

Water conservation is a major agency priority with an \$8 million budget in 1997. Reclamation offers direct assistance to water districts and others under the Water Conservation Field Services Program, introduced in 1996. The program helps water districts develop, implement, and coordinate conservation measures by providing technical and financial assistance, offering educational and training opportunities, and distributing informational guidebooks and handbooks.

Shasta Temperature Control Device

The \$80 million temperature control device at Shasta Dam in California began operating in 1997. The 300-foot underwater structure, weighing 8,000 tons, allows



Secretary Bruce Babbitt attends the dedication of a new temperature control device at Shasta Dam in California (photo by Reclamation).



Reclamation participates in recovery programs to help endangered species such as this razorback sucker (photo by Reclamation).

water previously bypassed for power generation to be efficiently used, resulting in increased revenue of about \$7 million annually to the U.S. Treasury. The structure gives flexibility to provide cooler temperatures while optimizing the quality of water releases for preserving and restoring the downstream chinook salmon fishery.

Bay-Delta Protection Plan

The State of California and the Federal Government established the Bay-Delta Accord in 1994 to provide environmental protection for the San Francisco Bay/Sacramento-San Joaquin Delta and Estuary and ensure a water supply for the State of California's 20 million people. In fiscal year 1997, progress on the Bay-Delta plan was boosted by passage of a \$995 million State bond issue and assurance of \$85 million in Federal funding through the California Bay-Delta Ecosystem Restoration Appropriation in fiscal year 1998.

Glen Canyon Adaptive Management Program

Reclamation is involved in cooperative efforts to manage and protect Colorado River resources. An Adaptive Management Program was implemented by the

Operation of Glen Canyon Dam Environmental Impact Statement that Reclamation, as the lead agency, completed in 1995. The program provides an organizational process for using future scientific information to make decisions about Glen Canyon Dam operations and protect affected downstream resources, consistent with the Grand Canyon Protection Act.

Platte River Cooperative Recovery

Reclamation has joined with other Interior agencies and the States of Wyoming, Nebraska, and Colorado to improve the Platte River habitat of four threatened and endangered species -- the whooping crane, the interior least tern, the piping plover, and the pallid sturgeon. In July 1997, the organizations signed a cooperative agreement that proposes a basin-wide plan to provide additional river flows and to acquire and restore habitat in Nebraska's Central Platte region.

Multi-Species Conservation Program

Reclamation helped form a 35-member steering committee representing Federal, State, Tribal, environmental, and other interests to direct the Lower Colorado River Multi-Species Conservation Program. Goals of the program are to work toward the recovery of sensitive, threatened, and listed species along the Lower Colorado River corridor; attempt to reduce the likelihood of future listings under the Endangered Species Act; accommodate current water diversions and power production; and optimize opportunities for future water and power development.

Water Recycling

In 1997, Reclamation assisted States and communities in water recycling as one important aspect of water management. This assistance, provided under the Reclamation Wastewater and Groundwater Study and Facilities Act, as amended, includes studying water reclamation and reuse projects and conducting research and demonstration programs to test water reclamation and reuse technologies. With cost-sharing, Reclamation may also construct reuse projects authorized by the Congress. Potential sources of water for recycling and reuse are agricultural drainage, municipal and industrial wastewater, and sources that contain toxins and/or other contaminants.



White-water rafting in the Grand Canyon (photo by Reclamation).

In fiscal year 1997, Congress appropriated \$38.2 million for Reclamation's recycling and reuse program, which includes construction, demonstration, and research activities.

Research and Technology Transfer

The Research and Technology Transfer Program supports innovative management of environmental resources, water resources, and facilities and infrastructure resources. Major program accomplishments in 1997 include developing fish friendly water lifts for salvaging fish at major South Delta Water diversions in California's Central Valley; applying intermediate and long-term river system computer modeling capabilities on the Colorado River Basin; and developing and applying a lower-cost method to locate power failures at Glen Canyon Dam.

Enhance Recreational Opportunities

Recreation and tourism is the single largest industry in the Western States where Reclamation projects and lands are located. Almost 90 million people annually visit the 310 designated recreation areas on Reclamation projects, and visitation is increasing at an average rate of 1.2 million visitors per year.

For the second straight year, visitation and revenue increased at the Hoover Dam Visitor Center. A record 1.1 million visitors toured the dam and powerplant in 1997. Total revenues for fiscal year 1997 reached \$6.7 million, an increase of more than \$2 million over fiscal year 1996.

Cultural Resources Management

Reclamation is responsible for protecting cultural resources located on its lands or affected by its actions. Data are still being prepared for fiscal year 1997, but in fiscal year 1996 Reclamation spent \$2.5 million for field studies that covered 73,000 acres under its jurisdiction and located more than 1,400 cultural resources sites.

Fifty-seven sites and more than 2,000 resources under Reclamation's jurisdiction are listed or eligible for listing on the National Register of Historic Places.

Reclamation has expended nearly \$8 million to ensure the long-term protection and appropriate accessibility of museum property for research and other public uses. Reclamation's museum property includes more than



A new interpretative exhibit gallery at the Hoover Dam Visitor Center was opened to the public, adding new educational and informational opportunities for visitors to the dam. A record 1.1 million visitors toured the dam and powerplant in 1997 (photo by Reclamation).

4.5 million objects housed in more than 100 non-Federal repositories such as public and private museums and universities.

Implementing the Government Performance and Results Act

During 1997, Reclamation produced its first strategic plan in support of the Government Performance and Results Act (GPRA). This plan sets forth three mission objectives to articulate the general, long-term activities and initiatives necessary for Reclamation to carry out its mission. The three specific mission objectives are (1) water and energy, (2) environmental and related resources, and (3) business practices and productivity. The identification of these mission objectives enabled Reclamation to develop strategies and performance indicators to ensure that its resources, both people and financial, are focused on the accomplishment of specific goals.

Customer Service

Reclamation has developed a customer service plan 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. During 1997, Reclamation worked to reconfigure and relate its customer service plan and surveys to its GPRA performance measurement process. In response to customer concerns, Reclamation is continuing to provide opportunities for customers' early input into agency operations.