



fiscal year two thousand and one



Management Discussion and Analysis



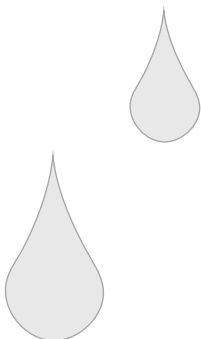
Management Discussion and Analysis

The Management Discussion and Analysis section of the Bureau of Reclamation's (Reclamation) Chief Financial Officer's Report summarizes how Reclamation fulfilled its mission in fiscal year (FY) 2001. This section contains a narrative discussion of Reclamation activities as well as highlights of performance toward Government Performance and Results Act (GPRA) goals.

GPRA requires every agency to define specific performance goals and report its success in meeting these goals. Under Federal Accounting Standards Advisory Board requirements, agencies

must include performance information in the Management Discussion and Analysis section. To meet this requirement, Reclamation has highlighted certain FY 2001 GPRA performance goals and included at least one goal for each GPRA program activity. The GPRA program activities link to Reclamation's budget categories.

Reclamation selected these goals because they best represent Reclamation's programs. Results of selected goals are displayed in a box under each of the six program activity headings.



Reclamation's primary mission is to provide water and power. With an ever-increasing Western population and demand for more water and power, developing new sources and prudently managing existing sources are essential parts of this mission. As the Nation's largest wholesale water supplier, Reclamation delivers 10 trillion gallons of water to more than 31 million people each year. Reclamation is also the second largest producer of hydroelectric power in the Western United States.

WATER AVAILABILITY

Reclamation strives to increase water availability through innovative agreements with water users throughout the West. Water availability may be increased through reuse and recycling projects, conservation, and water quality improvement.

Colorado River Management

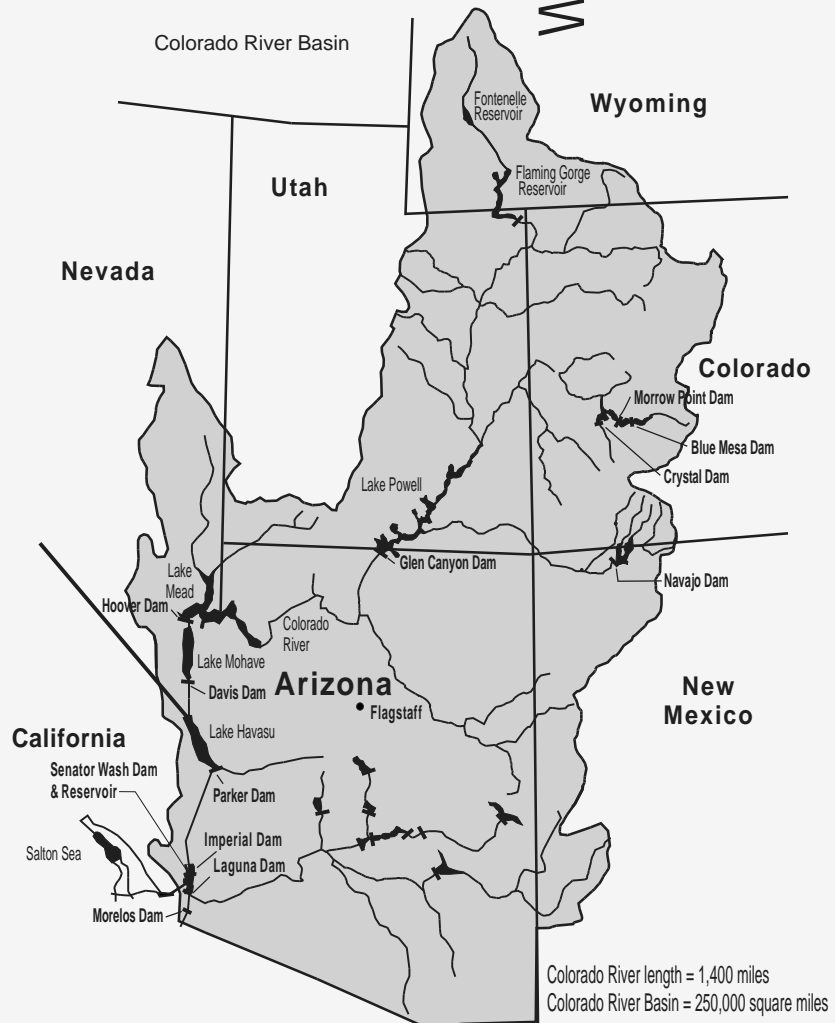
Water from the Colorado River was apportioned among seven Western States and the Republic of Mexico under a series of compacts and other legal actions. Because these States have grown at different rates, some have traditionally used less than their apportionment and others have used more.

As the Lower Colorado River Basin States reached full apportionment, California began developing a plan to reduce its overuse of Colorado River

water at the urging of, and with assistance from, the Department of the Interior and Reclamation.

In FY 2001, Reclamation developed and implemented interim surplus guidelines to help California with its water reduction efforts. The guidelines provide specific criteria for determining the availability of surplus Colorado River water for Nevada, Arizona, and California as part of the Annual Operating Plan for the river. From water year 2002 through 2016, the guidelines ensure California receives much-needed Colorado River supplies for urban populations in its southern

Water and Energy Management and Development



coastal areas, while the State concurrently implements programs to reduce its overuse of the river. The guidelines also provide additional water for other urban areas in Nevada and Arizona. Implementing these

GPRA Goal for the Water and Energy Management and Development Program Activity

Performance Goal - In FY 2001, improve water quality in the Colorado River Basin States by eliminating 25,000 new tons of salt at a cost not to exceed \$50 per ton.

Performance Measure - New tons of salt eliminated at a cost no greater than \$50 per ton on average. FY 2001 Plan: 25,000 tons.

Data Source - Contract agreements, reports, and monitoring results.

Result - Exceeds target. FY 2001 actual: 36,437 tons.

guidelines will improve overall management of the Colorado River for the benefit of all river users.

Reclamation helped negotiate documents to implement California's plan to reduce its annual use of Colorado River water from approximately 5 million acre-feet annually to its apportionment of 4.4 million acre-feet. Reclamation also continued preparing environmental documentation for the plan's key components: (1) the proposed transfer of water from agricultural use in the Imperial Irrigation District of southern California to municipal use in the southern California coastal area; (2) a policy to address inadvertent overuse of water in the Lower Colorado River Basin; and (3) implementation of the San Luis Rey water rights settlement.

Reclamation—along with the Arizona Water Banking Authority, Central Arizona Water Conservation District, Southern Nevada Water Authority, and Colorado River Commission of Nevada—also developed a Storage and Interstate Release Agreement that will improve water management in the Lower Colorado River Basin. The agreement was made possible by a 1999 rule, developed by Reclamation, that established procedures for interstate transfer and use of Colorado River water. The agreement will allow Nevada to store portions of its unused Colorado River water in Arizona groundwater aquifers and specifies the exchange process for storing this water in Arizona for later retrieval by Nevada. It also states the terms and conditions for storage and recovery of the water, environmental compliance, and pricing.

Stipulated Agreement with Arizona Water District

Water problems often are interrelated, and solutions must be developed for an entire region, basin, or State. In FY 2001, Reclamation continued to participate in efforts to settle complex water issues in Arizona. Working with U.S. Senator John Kyl; U.S. Representative J.D. Hayworth; and State, local, and Federal entities, Reclamation helped negotiate issues related to water settlement agreements with area Indian

tribes. The issues include settling the Central Arizona Project repayment contract and related operation and maintenance issues through an agreement “Stipulation Regarding a Stay of Litigation” between the United States and the Central Arizona Water Conservation District, a water rights settlement for the Gila River Indian Community, a final amendment to the Southern Arizona Water Rights Settlement Act of 1982, and a final allocation of Central Arizona Project water to Arizona cities and Indian tribes. Agreements developed from these negotiations are expected to become part of legislation introduced by Senator Kyl in an overall Arizona water settlement bill.

Northwest Area Water Supply Environmental Assessment

After a long and complex planning and development process, Reclamation completed an environmental report on the Northwest Area Water Supply Project and released it to interested parties, including the Canadian Government, during FY 2001. The Northwest Area Water Supply Project is a municipal, rural, and industrial water supply system designed to serve a 10-county area in northwestern North Dakota. It was authorized by the Garrison Diversion Unit Reformulation Act of 1986 (Public Law 99-294). Under the project, raw water will

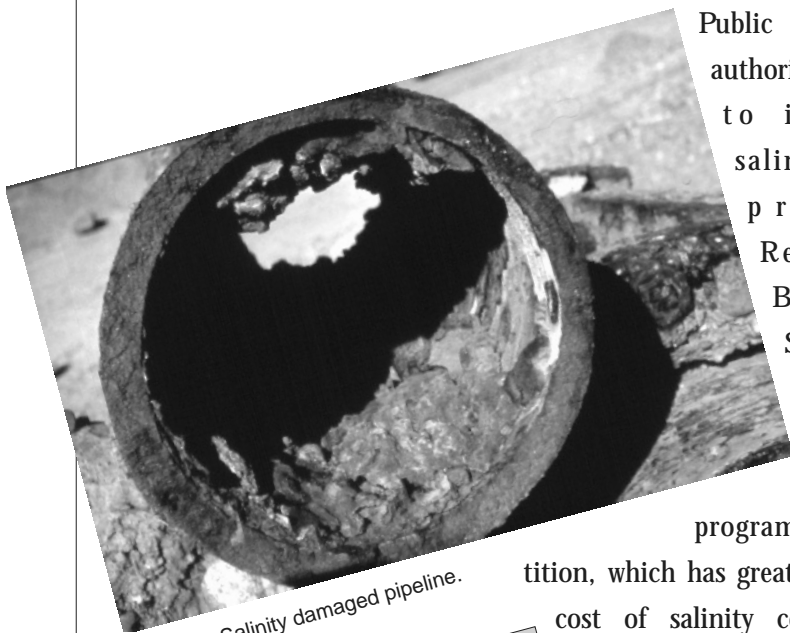
be drawn from either Lake Sakakawea or Lake Audubon, disinfected, and pumped to the Minot water treatment plant through buried pipeline. The Minot water treatment plant will then treat the water to meet drinking water standards before distributing it in the project service area. Before the project could move forward, this compliance report was necessary to ensure water treatment meets the requirements of the Boundary Waters Treaty of 1909.

WATER QUALITY

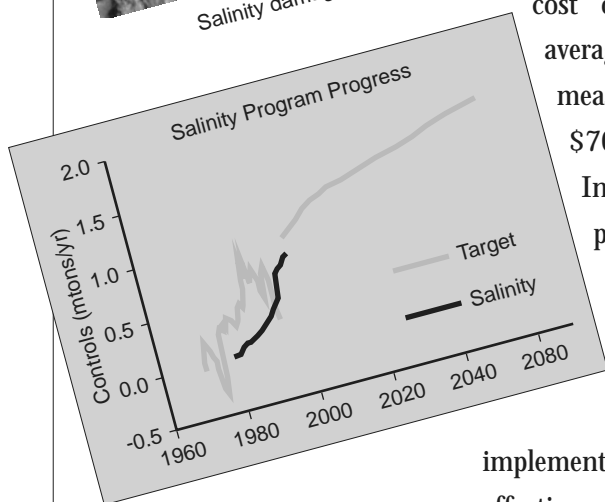
Improving water quality increases water availability by making formerly unusable water suitable to meet various needs.

Colorado River Salinity Program

The Colorado River and its tributaries provide municipal and industrial water to about 27 million people and irrigation water to nearly 4 million acres of land in the Western United States. The river also serves about 2.3 million people and irrigates 500,000 acres in Mexico. Salinity, which can damage agricultural lands and water delivery systems, is a major threat in both the United States and Mexico. Damages in Mexico are unquantified, but damages in the United States are presently about \$330 million per year. Title II of the Colorado River Basin Salinity Control Act seeks to prevent salts from polluting the river at far less cost than traditional technologies.



Salinity damaged pipeline.



Public Law 104-20 authorized new ways to implement salinity control projects.

Reclamation's Basinwide Salinity Control Program opens the

program to competition, which has greatly reduced the cost of salinity control. The average cost of salinity control measures has dropped from about \$70 per ton to \$30 per ton. Involved States provide 30 percent of the costs through a surcharge on power produced at Reclamation facilities within the basin. Local cost sharing and project implementation also increased program effectiveness.

Over the past 3 years, the program has consistently exceeded its goal by 50 percent, almost completely eliminating the backlog of work that accumulated before the new program began. To date, river salinity has been reduced by about 10 percent (800,000 tons per year).

Water Quality Models

Reclamation has developed water quality assessment models on seven reservoirs to: (1) evaluate operational changes, such as selective withdrawal for

temperature control at Glen Canyon Reservoir, and seasonally adjusted flow at Flaming Gorge Dam and (2) assess watershed water quality proposals from State or local watershed groups. Reclamation has participated in a joint study of Elephant Butte and Caballo Reservoirs on the Rio Grande in New Mexico, where dam releases are resulting in hydrogen sulfide problems. Reclamation has also completed the field work and two of four reports for a Colorado River basinwide selenium assessment.

Water Quality Data Base

In FY 2001, Reclamation initiated a bureauwide effort to compile a comprehensive list of Reclamation water quality data. The list will provide information on the type, location, and purpose of available data. The list will:

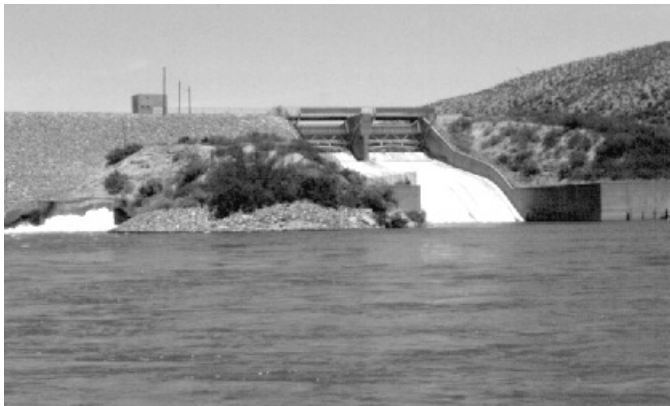
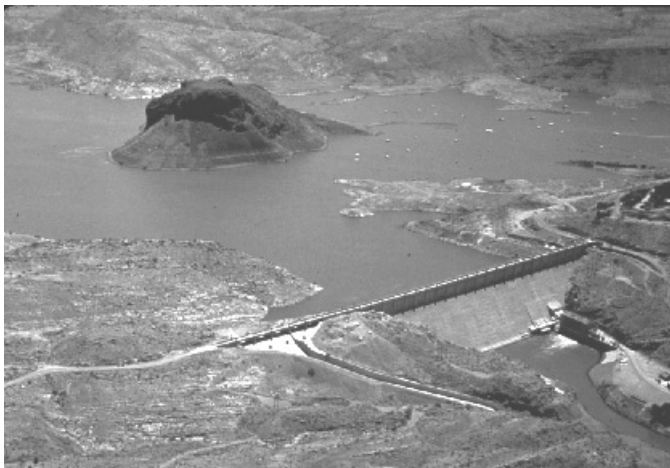
- ▶ Provide insight into Reclamation's total water quality monitoring efforts.
- ▶ Provide benchmarking across Reclamation regions and area offices and support consistent and efficient responses to data requests.
- ▶ Improve timeliness and completeness of responses.
- ▶ Improve Reclamation's ability to address Clean Water Act responsibilities and enhance Reclamation's effectiveness in working with States to establish basinwide water quality standards.

WATER CONSERVATION

Reclamation also strives to manage its water supplies through water conservation activities. Major activities are described in this section.

Water Conservation Field Services Program

Reclamation's Water Conservation Field Services Program provides ways to increase water availability. This incentive-based program provides technical and financial assistance to water districts covered by the Reclamation Reform Act and to other entities. Districts covered by the Reclamation Reform Act represent more than 10.5 million irrigated acres.

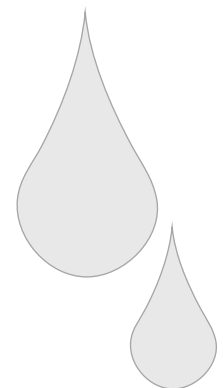


The Water Conservation Field Services Program assists local water users in four areas: (1) preparing water conservation plans; (2) implementing effective, efficient water management measures; (3) demonstrating innovative conservation technologies; and (4) promoting conservation information and education.

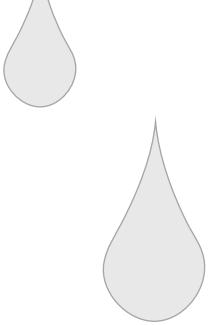
“Bridging-the-Headgate” Partnership

In February 2001, Reclamation and other Federal and non-Federal entities renewed their commitment to the Western agricultural conservation partnership called “Bridging-the-Headgate.” This partnership is a six-party alliance that includes

Reclamation, the Western States Water Council, the National Water Resources Association, the Natural Resources Conservation Service, the National Association of State Conservation Agencies, and the National Association of Conservation Districts. These six

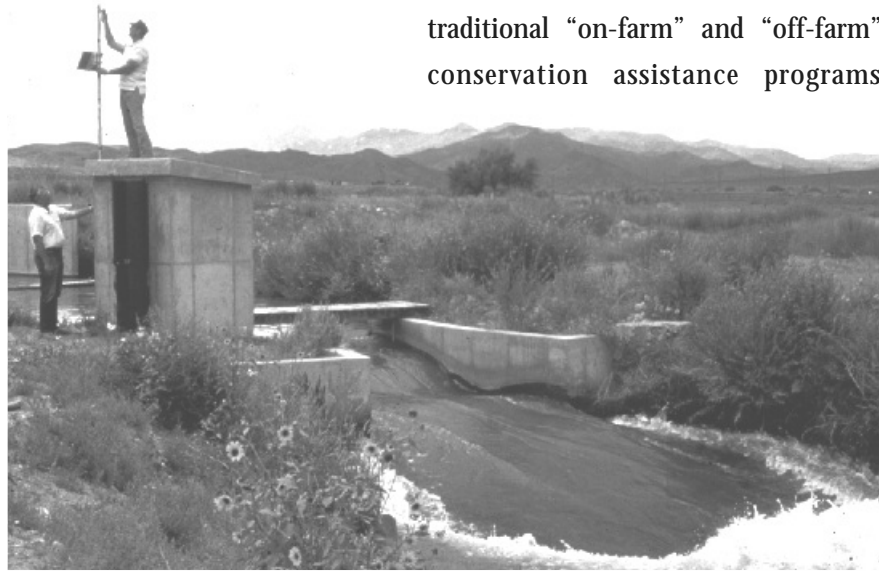


Elephant Butte (top) and Caballo (bottom) Reservoirs are contributing to hydrogen sulfide problems in the Colorado River Basin.



entities, representing the key Federal, State, and local interests in Western agricultural water management on respective sides of the off-farm/on-farm “headgate,” have joined to actively promote the idea of “working together for the sustainable and efficient use of Western agricultural water supplies.”

The overall intent of the partnership is to encourage innovative networking among all parties, particularly at the local level, to promote and facilitate collaborative problem solving on Western water resource issues. Since 1998, the “Bridging-the-Headgate” partnership has resulted in nearly 100 cooperative projects at the local level that have leveraged the benefits of traditional “on-farm” and “off-farm” conservation assistance programs



Efficient water use requires cooperation.

throughout the 17 Western States. The program has also encouraged non-Federal entities to take an active role in providing local leadership on water management and conservation issues.

DROUGHT MITIGATION

Reclamation's Drought Program helps States, tribes, and local entities throughout the Reclamation States and the State of Hawaii to address emergency drought impacts. In addition, the Reclamation States Emergency Drought Relief Act of 1991 (Public Law 102-250), as amended, authorizes Reclamation to undertake drought planning activities in all 50 States and U.S. territories. In FY 2001, Reclamation:

- ▶ Acquired emergency water supplies for the State of New Mexico to mitigate fish and wildlife impacts resulting from the multiyear drought in the Rio Grande area.
- ▶ Helped the cities of Geraldine and Hobson, the Galta County Water District, and the Sage Creek Colony in Montana develop municipal wells.
- ▶ Raised the elevation of a diversion dam used by the Kickapoo Tribe in Kansas, thus providing more water storage.
- ▶ Assisted the village of Culbertson, Nebraska, in developing a well.
- ▶ Improved water hauling in the State of Hawaii to supply water for domestic and livestock use in rural areas not served by municipal or private water systems. Reclamation purchased a

generator to pump well water to re-supply the Kualapuu Reservoir on the Island of Molokai.

- ▶ Acquired water to meet the needs of threatened and endangered species for the Klamath Project in Oregon.
- ▶ Helped the Quinault Indian Nation drill three potable water wells to mitigate recent drought impacts.
- ▶ Helped the Yakama Nation in Washington drill wells to support livestock water and aquatic life, including the Yakima River basin steelhead.
- ▶ Provided water from the Columbia Basin Project for Washington State's Temporary Trust Water Right Program. This water—used for irrigation, instream flows, and other purposes—was available as a result of the Bonneville Power Administration's load reduction program with the Columbia Basin Project farmers.
- ▶ Received drought mitigation plans for submission to the Congress. Entities submitting plans included the Hopi Tribe and the States of Hawaii, New Mexico, and Utah. Because of the extensive emergency drought needs throughout the West, no new drought planning efforts were initiated this fiscal year.

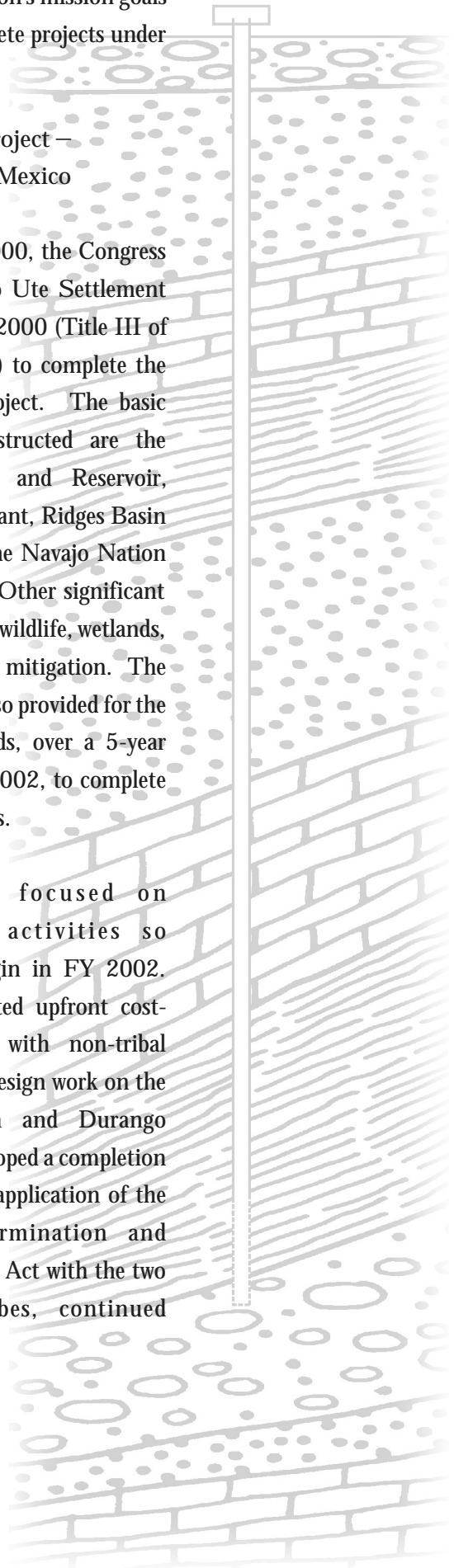
CONSTRUCTION

Another of Reclamation's mission goals is to efficiently complete projects under construction.

Animas-La Plata Project — Colorado and New Mexico

On December 21, 2000, the Congress enacted the Colorado Ute Settlement Act Amendments of 2000 (Title III of Public Law 106-554) to complete the Animas-La Plata Project. The basic facilities to be constructed are the Ridges Basin Dam and Reservoir, Durango Pumping Plant, Ridges Basin Inlet Conduit, and the Navajo Nation Municipal Pipeline. Other significant activities include fish, wildlife, wetlands, and cultural resources mitigation. The 2000 amendments also provided for the appropriation of funds, over a 5-year period beginning in 2002, to complete construction in 7 years.

FY 2001 work focused on preconstruction activities so construction can begin in FY 2002. Reclamation negotiated upfront cost-sharing agreements with non-tribal entities, began final design work on the Ridges Basin Dam and Durango Pumping Plant, developed a completion schedule, negotiated application of the Indian Self Determination and Education Assistance Act with the two Colorado Ute tribes, continued



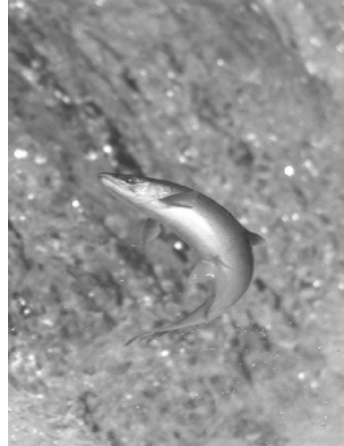
collecting environmental baseline data, and prepared a development plan for meeting wetland mitigation obligations.

NATIVE AMERICAN AFFAIRS

The Native American Program includes developing policy for Reclamation's work with federally recognized Indian

Central Washington University, and the Southwest Indian Polytechnic Institute.

- **Water Development.** Memorandums of Understanding were implemented to initiate working relationships with two large Indian organizations: (1) an agreement with the Navajo Nation to aid in strategic



Reclamation assistance helps tribes with environmental studies (left) and supports education opportunities (right).

tribes and coordinating Reclamation programs to assist Indian tribes. Once formulated, programs are carried out largely at the regional and area office levels.

The following milestone events occurred in FY 2001:

- **Education.** As part of its ongoing Indian education program, Reclamation initiated a scholarship program in partnership with the American Indian Science and Engineering Society and awarded four scholarships. Reclamation also continued supporting programs for Indian law and natural resources students at Arizona State University,

planning for future water development on the Navajo Reservation and (2) an agreement with the Mni Sose Water Rights Coalition, designed to assist its 27 member tribes with their future water development projects.

- **Technical Assistance.** The Native American Affairs Program continued its Technical Assistance to Tribes Program in FY 2001 by providing \$4.1 million to support 118 technical assistance projects for 92 tribes. (The 118 figure represents a wide range of new and continuing technical support. Technical assistance measured under GPRA includes only certain completed projects.)

- ▶ **Settlement Efforts.** Native American Affairs provided almost \$1.8 million to support the Department of the Interior's Indian water rights settlement efforts, including support for 4 assessments, 17 negotiations, and 17 implementation teams.

SCIENCE AND TECHNOLOGY

The Science and Technology Program provides coordinated, interdisciplinary research and development to advance mission-specific capabilities, increase water management flexibility and reliability, and reduce costs. The Science and Technology Program focuses on four main areas of water resources research:

- ▶ Improving water and hydropower infrastructure reliability and efficiency.
- ▶ Improving water delivery reliability and efficiency.
- ▶ Improving water operations decision support with advanced technologies and models.
- ▶ Enhancing water supply technologies.

Science and Technology Program activities in FY 2001 included:

- ▶ **Increasing Safety, Power Production, and Power Revenues.** The program developed and deployed

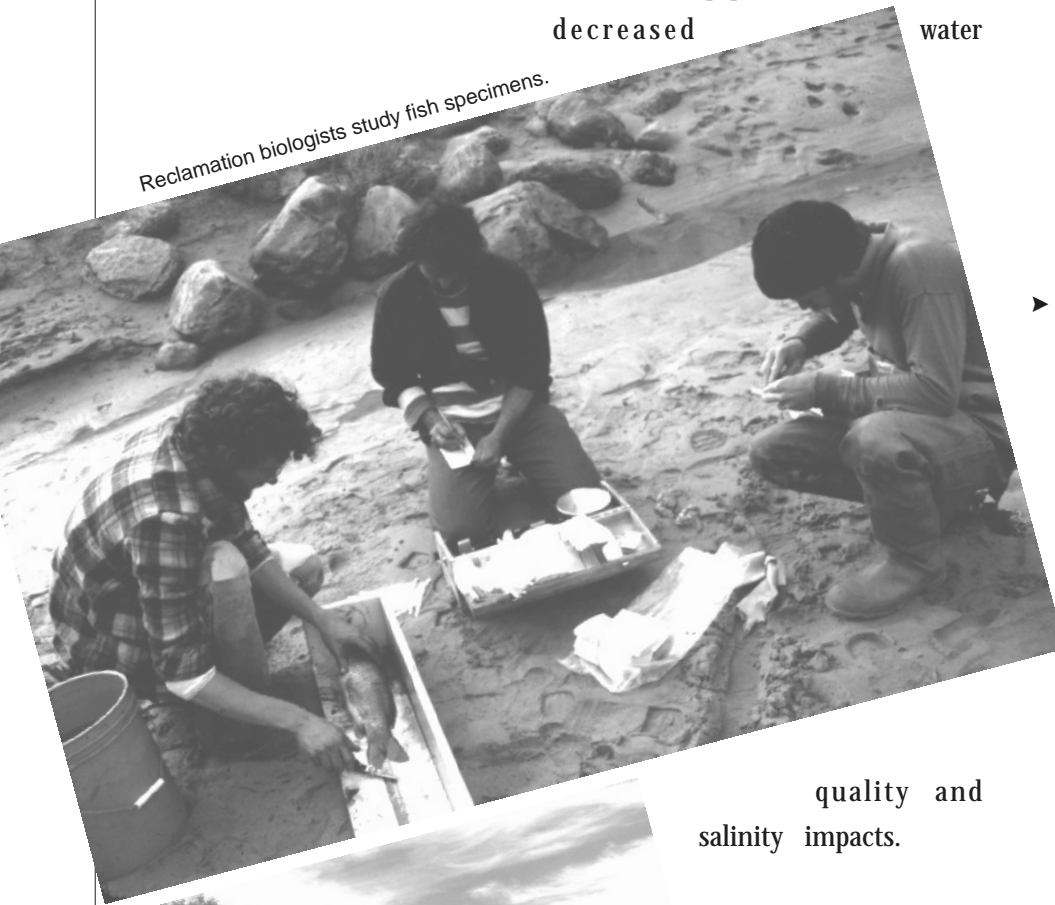
tunnel communication technology that increases worker safety in long water conveyance tunnels by improving communication with those on the outside. Annual cost savings at powerplants, made possible by more frequent tunnel cleaning, are estimated to be \$100,000 in labor and \$2 million in increased power revenues.

- ▶ **Developing Cost-Effective and Environmentally Friendly Powerplant Rehabilitation.** Reclamation completed research into Powerformer technology to make powerplant rehabilitation more cost effective, reduce maintenance requirements, and eliminate environmental risks from transformers.
- ▶ **Saving Water and Water Quality With Improved Water Supply Technologies.** Reclamation began implementing water delivery measurement and remote operation technologies on projects in Arizona, Montana, Utah, and New Mexico. Advances in these technologies can improve agricultural water use efficiencies from about 65 percent to about 80 to 95 percent. For example, on a project diverting 150,000 acre-feet of water per year, these technologies could save 30,000 acre-feet per year, resulting in a typical

value of about \$4.5 million. Additional advantages include increased operational flexibility, increased crop production, and decreased water

indicates that every \$1 spent on canal rehabilitation can return \$3 to \$5 in conserved water, and every \$1 spent on canal lining maintenance can return up to \$10 in conserved water. Many of the more than 16,000 miles of canal serving Reclamation project lands are unlined, so potential savings could be significant.

Reclamation biologists study fish specimens.

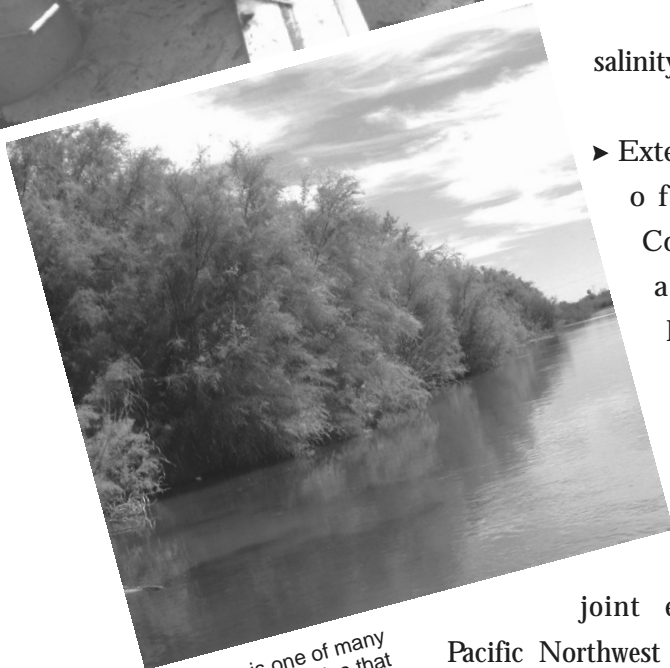


- ▶ **Saving Water by Eliminating Salt Cedar.** Reclamation, in collaboration with other agencies, tested a potentially effective method of eradicating salt cedar with insects that eat only salt cedar. Salt cedar, which clogs waterways and consumes more water than native vegetation, has invaded most riparian areas of the arid Western U.S., causing an estimated annual water loss as great as 2.5 million acre-feet. The annual dollar value of lost irrigation water is estimated as high as \$288 million, and the annual dollar value of lost power generation along the Colorado River is estimated as high as \$43.5 million.

quality and salinity impacts.

- ▶ **Extending the Life of Canals, Conserving Water, and Saving Money.** This program developed low-cost canal lining systems through a joint effort with the

- ▶ **Enhancing Water Supplies through Water Treatment Technologies.** This program developed a high-pressure sea water pump that significantly reduces energy consumption and dramatically



Salt cedar is one of many invasive species that Reclamation is working to control.

Pacific Northwest Region, 20 geosynthetic manufacturers, and 10 irrigation districts. Cost/benefit analysis

improves sea water desalination. The innovative system uses 50 percent less energy than conventional reverse osmosis systems and 90 percent less energy than multistage flash distillation. Energy-efficient sea-water desalination can provide new water supplies at an energy cost that is potentially less than that of pumping groundwater or basin transfers.

- ▶ Locating Historic and Cultural Resources. Reclamation proved buried historic and cultural structures and features can be located using non-destructive, geophysical technologies. These technologies can prevent the cost of inadvertent damage during construction to structures, features, and human remains—which can easily exceed \$100,000 per incident—as well as save excavation costs.

INTERNATIONAL AFFAIRS

Reclamation's International Affairs Program provides technical training and assistance on water resources management to countries throughout the world. In FY 2001, Reclamation hosted three well-received international workshops. Managers and administrators from 13 countries attended Reclamation's Integrated Water Resources Management International Workshop, which reviewed current trends and issues related to water resources management

in the American West. Additionally, canal operators, engineers, and managers from five countries attended Reclamation's Modern Methods in Canal Operation and Control Workshop, which outlined modern methods to upgrade the operations of existing canals, including canal automation techniques and equipment. Finally, the International Dam Safety Operation and Maintenance Seminar focused on techniques for safe and effective dam operation and maintenance. Managers, administrators, engineers, and geologists from more than 15 countries attended. Throughout the year, Reclamation also developed and conducted specialized visitor programs for more than 600 international visitors from more than 40 countries.

Other International Affairs Program achievements include the following:

- ▶ Assisted the U.S. State Department in working with other nations to reduce potential international transboundary

Engineers and scientists come from all over the world to attend Reclamation seminars and workshops.



conflicts in several river basins around the world, including several river basins in Africa.

installed reverse osmosis water purification units and trained Jordanian staff in their use.

- ▶ Extended an agreement with Hydro-Quebec (Canada) for cooperation in the fields of dam safety, water resources management, and hydroelectric power.

- ▶ Signed a cooperative agreement with the Japanese Public Works Research Institute to jointly study and share information in the field of watershed and river system management.

- ▶ Continued to assist the Department of the Interior in cleaning up and transferring/selling portions of Water Island in the U.S. Virgin Islands to the Virgin Islands government and private entities.



- ▶ Continued to assist the Puerto Rico

- ▶ Concluded an interagency agreement with the Department of Energy's National Renewable Energy Laboratory to help the government of Jordan desalinate its brackish water.
- R e c l a m a t i o n

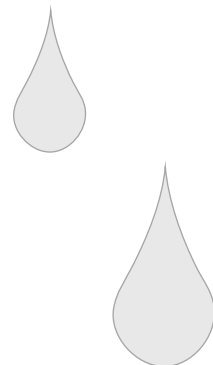


Reclamation hosts classes and field trips for visiting experts from around the world.



Representatives of Reclamation's International Affairs Program meet with delegates for the Okavango River Basin Commission, which is studying ways to improve basinwide water management for this river that serves the nations of Namibia, Botswana, and Angola.

- Electric Power Authority with dam safety studies and evaluations of Puerto Rican dams.
- Provided two workshops on alternative dispute resolution techniques to the South African Ministry of Water Affairs and Forestry.
- Provided a series of dam safety workshops to Mexico's National Water Commission.
- Continued to assist the U.S. State Department with issues related to desalination under the auspices of the



Land Management and Development

Under this GPRA program activity, Reclamation's goals are to maintain and protect project land resources and to provide quality recreation. Reclamation manages 8.6 million acres of land throughout the West for such project purposes as facility operations, recreation, fish and wildlife enhancement, and flood plain management.

In partnership with States or other Federal agencies, Reclamation manages 308 recreation sites which have 90 million visits each year. More than 80 percent of Reclamation-owned recreation areas are managed by other entities, including the National Park Service, the Bureau of Land Management, the U.S. Department of Agriculture, and State recreation

Reclamation works with the public and other entities to create and implement Resource Management Plans (RMPs) that identify resources, issues, and solutions.

RMPs are used to make decisions about land uses and develop strategies for sustaining them. These plans are often developed for areas with significant demands and conflicts over critical resources. Therefore, RMP development is also a public process in which divergent interests can provide input.

In FY 2001, Reclamation developed or revised RMPs for six project areas in the States of Utah, Nebraska, and Washington. Completion of other RMPs was delayed, mostly as a result of scheduling and completing activities required to comply with environmental laws, especially the public comment process.

GPRA Goal for the Land Management and Development Program Activity

Performance Goal - In FY 2001, improve land stewardship by completing 15 RMPs.

Performance Measure - Number of RMPs completed. FY 2001 Plan: 15 completed RMPs.

Data Source - RMP.

Result - Below target. FY 2001 actual: 6 RMPs.

agencies. Such partnerships are key to accomplishing Reclamation's goal of providing quality recreation.

RESOURCE MANAGEMENT PLANS

To ensure a comprehensive and balanced approach to land management,

FEDERAL LAKES RECREATION LEADERSHIP COUNCIL

The Federal Lakes Recreation Leadership Council is an interagency body formed to review and appropriately implement the recommendations of the National Recreation Lakes Study Commission. The commission was charged with reviewing the extent of recreation activities at federally constructed lakes and recommending actions to enhance water-related



Volunteers are an important part of the overall successful operation at Reclamation recreation sites such as Lake Cascade (above).

Reclamation has joined with the other members of the Federal Lakes Recreation Leadership Council to enhance reservoir recreation.

recreation opportunities. The Commissioner of Reclamation is a co-chair of the council, along with the Director of Civil Works for the U.S. Army Corps of Engineers. The primary goal of the council is to bring

together the eight agencies that manage the Nation's 1,782 Federal lakes and to identify and implement actions to improve the experiences of millions of visitors at these popular recreation destinations. Recreational use is the

primary authorized purpose of about a quarter of all Federal lakes. The 900 million recreation visits to Federal lakes generate \$44 billion annually for the national economy.

The council has focused on the pilot lakes demonstration program, which includes 31 lakes managed by 6 Federal agencies in 20 States. Each of the pilots has developed an action plan and will work with other Federal and non-Federal partners to plan, develop, and implement actions to enhance the recreation experience. Reclamation has eight lakes in the pilot project, representing each of the five regions. This special designation has instilled a new interest among the recreation managing partners. By granting managers greater latitude to experiment with process and procedures, better results are emerging. Successes, as well as barriers, will be shared among the council agencies and recreation managing partners.

VOLUNTEERS ASSIST AT LAKE CASCADE

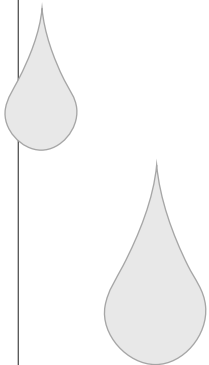
Volunteers have become an important part of Reclamation's land management program. For example, volunteer assistance on the lands

adjacent to Lake Cascade, located near Cascade, Idaho, has saved Reclamation more than \$150,000 in 5 years.

Reclamation owns and manages some 6,300 acres at Lake Cascade. Volunteer projects completed this year alone include planting riparian plants in constructed wetlands to improve water quality, placing nesting boxes for a wide array of bird species, and removing old barbed wire fences to reduce the possibility of animal entanglement.

The Boy Scouts of America has provided major assistance at Lake Cascade. Other volunteers include church groups, local advanced biology classes, and individuals. Reclamation's Pacific Northwest Region staff and Lake Cascade volunteers participated in the National Public Lands Day celebrations on Saturday, September 29, 2001.

Volunteer opportunities not only involve average citizens and civic organizations, but they also help develop "pride in ownership" toward federally managed projects and improve conditions without added cost to the Federal budget.



Reclamation's mission is to "manage, develop, and protect water and related resources in an environmentally . . . sound manner . . ." To that end, Reclamation focuses significant attention on improving habitat conditions for fish and wildlife, improving and protecting wetlands, and making decisions based on a watershed perspective.

The GPRA goal for this program activity is to preserve, restore, or establish additional wetlands. In FY 2001, Reclamation exceeded its target.

IMPROVEMENTS FOR FISH

Reclamation is committed to complying with the Endangered Species Act and has initiated several projects to improve water and habitat conditions for threatened and endangered fish.

Rio Grande Silvery Minnow Agreement - New Mexico

The Rio Grande silvery minnow, which now lives between Cochiti Dam and Elephant Butte Reservoir in New Mexico, was listed as an endangered species in 1994. In November 1999, environmental groups collectively filed suit against Reclamation and the U.S. Army Corps of Engineers for alleged Endangered Species Act and National Environmental Policy Act violations. In January 2000, Reclamation and other partners signed a Memorandum of Understanding to develop a Middle Rio Grande

Collaborative Program to support recovery of this species, while protecting existing and future water uses.

Since 1997, Reclamation has spent millions of dollars leasing water from San Juan-Chama Project contractors to enhance riverflows. Unfortunately, reserves of water have largely been exhausted. To address supplemental water needs for 2001-2003, a Conservation Water Agreement was signed on June 29, 2001, to store up to 100,000 acre-feet of water. Under the agreement, up to 30,000 acre-feet of water can be released per year for 3 years. The U.S. Fish and Wildlife Service issued its final biological opinion on June 29, 2001, which is effective for the same 3-year period.

Fish and Wildlife Management and Development

GPRA Goal for the Fish and Wildlife Management and Development Program Activity

Performance Goal - In FY 2001, protect and maintain, establish, restore, or enhance 1,000 acres of wetlands habitat.

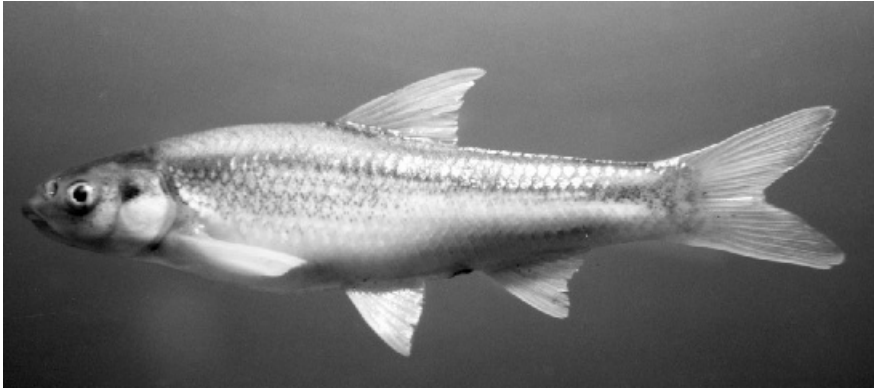
Performance Measure - Acres of wetlands and/or riparian habitat protected and maintained, established, restored, or enhanced. FY 2001 Plan: 1,000 acres.

Data Source - Section 404 permits, environmental documents, biological opinions.

Result - Exceeds target. FY 2001 actual: 6,212.

The biological opinion calls for a variety of activities, including providing the appropriate quantity and quality of water, suitable habitat, and fish passage.

Most of the efforts undertaken this year are for the immediate survival of the species. Reclamation believes the collaborative program is the best



Reclamation's efforts to enhance riverflows are designed to ensure the long-term survival of the Rio Grande silvery minnow.

Bay-Delta Program Elements:

- ▶ Watershed management
- ▶ Water transfers
- ▶ Storage
- ▶ Conveyance
- ▶ Water use efficiency
- ▶ Ecosystem restoration
- ▶ Water quality
- ▶ Long-term levee protection

approach to recover the endangered species, attain Endangered Species Act compliance, and permit existing and future water development and management activities.

Restoring the Bay-Delta Ecosystem

The CALFED Bay-Delta Program, composed of Federal and State agencies including the Department of the Interior, was established to develop a long-term solution for ecosystem and water management for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The solution must: (1) comply with the Clean Water Act and the Endangered Species Act and (2) allow continued operation of water projects, including Reclamation's Central Valley Project. The Department of the Interior supports resolution of Bay-Delta issues through this consensus process.

The lead CALFED agencies released the final programmatic environmental impact statement/environmental impact report and the preferred alternative on July 21, 2000. This was followed by the signing of the record of decision on August 28, 2000, which formally approved a long-term plan to restore the Bay-Delta ecosystem and

improve water management through a framework of eight common program elements.

The record of decision outlines commitments by Federal and State governments and performance goals for CALFED. One of the most significant program accomplishments in FY 2001 was implementing the environmental water account, a program designed to set aside water for fish without reducing allocations to farms and cities. The program also established the CALFED Science Program to provide peer review of the science and information underlying all elements of the CALFED program. Further, the program is granting funds to local agencies to address drinking water quality, water conservation, groundwater management, and watershed protection projects throughout California. Federal and State agencies have contributed \$699 million in this first year toward implementing actions outlined in the CALFED record of decision.

Environmental Impact Statement on the Operation of Flaming Gorge Dam - Utah

In FY 2001, Reclamation continued its efforts to prepare an environmental impact statement for the operation of Flaming Gorge Dam, Utah. The environmental impact statement will report the possible impacts of implementing flow and temperature recommendations intended to protect and assist in the recovery of the

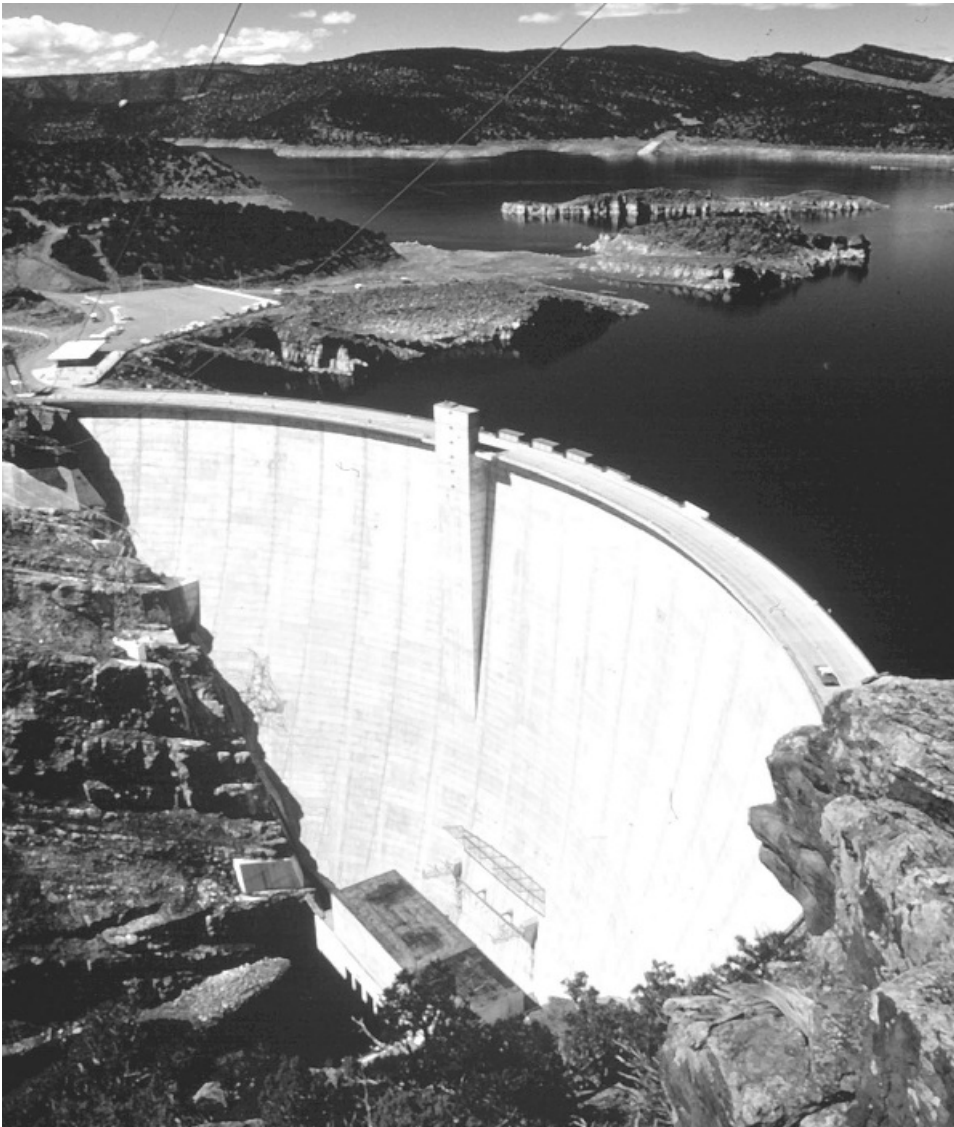
populations and designated critical habitat of four endangered fish species found in the Green River, downstream from Flaming Gorge Dam. At the same time, Reclamation will maintain and continue the other authorized purposes of the Colorado River Storage Project.

Eight cooperating agencies are working with Reclamation to complete the Flaming Gorge environmental impact statement: Bureau of Indian Affairs, U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management, National Park Service, Western Area Power Administration, Utah Department of Natural Resources, and Utah Associated Municipal Power Systems.

Reclamation received public input on the proposed scope of the environmental impact statement from June 2000 to September 2000. In FY 2001, Reclamation began developing the scope of the environmental impact statement, hydrology modeling, and gathering and analyzing data. The draft environmental impact statement is scheduled for release in FY 2002.

Glenn-Colusa Irrigation District Fish Screen Facility - California

The Glenn-Colusa Irrigation District fish screen facility is the fifth such system built at the Hamilton City pumping plant diversion on the Sacramento River since the 1920s. Although the preceding screens were



Reclamation, along with eight partners, is working on the environmental impact statement for Utah's Flaming Gorge Dam and Reservoir.

unsuccessful because of a combination of large floods and design problems, further experience contributed greatly to the design and construction of the current project. The Hamilton City pumping plant diverts up to 3,000 cubic feet per second of water, up to 25 percent of the river at times, to supply water to 20,000 acres at three national wildlife refuges and to produce \$200 million worth of crops in California's Sacramento Valley.

would minimize fish losses, while maximizing the ability of the district to divert its full water allowance on the meandering Sacramento River for at least the next 50 years.

The challenge was met by combining a flat plate fish screen structure with three types of water control structures to accommodate the fluctuating river conditions and by adding two types of fish bypasses to safely move fish past the screen and back to the Sacramento River. Reclamation is cautiously optimistic about the new facility but will complete a 3-year monitoring and testing program to determine its effectiveness.

The planning, design, environmental compliance, construction, and testing for this project total approximately \$70 million, shared by the Federal

Government (75 percent) and State and local governments (25 percent).

Navajo Reservoir Low Flow Test - Colorado and New Mexico

In July 2001, Reclamation conducted a 7-day low flow test by releasing 250 cubic feet of water



After the winter-run chinook salmon was designated as endangered in 1989-90, a cooperative effort began to develop a reliable fish screen system at the pumping plant. In addition to the irrigation district

Reclamation conducted flow tests at Navajo Reservoir to gather data for the forthcoming environmental impact statement.



and Reclamation, the U.S. Army Corps of Engineers, the California Department of Fish and Game, the California Department of Water Resources, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service all participated. The challenge lay in engineering a facility that



per second from Navajo Reservoir, half the releases normally made at that time of year. The test was an important part of Reclamation's preparation for an environmental impact statement on Navajo Dam operations. The San Juan River Basin Recovery Implementation Program recommends nonpeak flows of 500 to 1,000 cubic feet per second in the San Juan River from Farmington, New Mexico, to Lake Powell. (Accommodation of these flows requires releases of 250 cubic feet per second from Navajo Reservoir.) These flows are to help conserve and recover the endangered Colorado pikeminnow and razorback sucker populations, while protecting existing and new water development. Before conducting the controversial test, Reclamation staff held public meetings and met with local, State, tribal, Federal, and private individuals whose resources could be affected by low flows.

During the test, Reclamation gathered data on a variety of resources, trout health and habitat, river recreation impacts, economic impacts on fishing and rafting outfitters, water quality, water diversions, and flows in the river and in diversion canals. Reclamation also asked the public to provide information on impacts they experienced during the test. Reclamation will use the data to project impacts to the resources during the long-term, low flow release that could occur under the recovery program flow recommendations. The information will be included in the draft

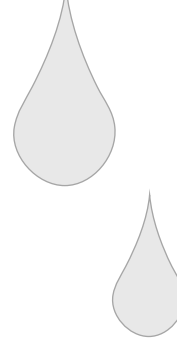
environmental impact statement scheduled for release in 2002.

Elwha Restoration Project - Washington

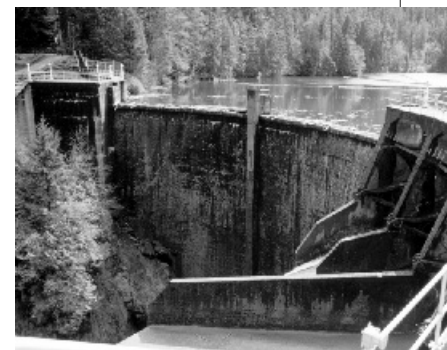
Two privately owned hydropower projects on Washington State's Olympic Peninsula were purchased by the Department of the Interior in February 2000 for removal to help restore the Elwha River ecosystem and native anadromous fisheries, in accordance with Public Law 102-495.

Historically, the Elwha River supported significant runs of anadromous fish. These runs were blocked by the construction of Elwha Dam, limiting spawning areas to the river below the dam. Biologists are optimistic that these runs can be restored once the Elwha and Glines Canyon Dams are removed.

Reclamation is assisting the National Park Service by operating and maintaining the dams and associated



To restore the Elwha River fishery, both Glines Canyon (above) and Elwha Dam (below) are slated for removal.



power facilities prior to removal. The total production of the powerplants is marketed by the Bonneville Power Administration. Revenue from power sales offsets operation and maintenance costs, with any remaining revenue earmarked for the Elwha Restoration Project.

Before dam removal could begin, an alternative water supply for local residents needed to be developed. A water quality mitigation program, coordinated with local residents within the Elwha Place Home Owners Association, was developed. Reclamation completed well field relocation and testing, designed pumping and disinfection facilities, and began construction in October 2001. A cooperative agreement on mitigation requirements for municipal water supply was reached with the city of Port Angeles, Washington. Successful coordination with the Lower Elwha Klallam Tribe also has taken place, as the National Park Service formulates an annual funding agreement for participation in restoration activities.

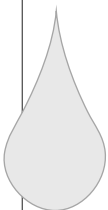
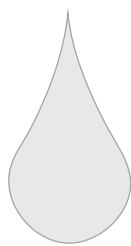
Central Arizona Project Fish Barriers

Reclamation recently completed construction of two concrete, low-head fish barriers on Aravaipa Creek in central Arizona. These barriers will prevent the upstream movement of non-native fish into habitats occupied by the native and federally threatened spikedace and loach minnow fishes that reside in the creek. The barriers were built in response to a 1994 U.S. Fish

and Wildlife Service biological opinion that determined the Central Arizona Project aqueduct could transport non-native species from the Colorado River to streams in central Arizona's Gila River basin, where they could negatively impact native species. Invasion of non-native aquatic organisms into habitats occupied by native fishes is viewed as one of the most serious and intractable long-term problems facing recovery of native fishes. The design of the barriers produces shallow, fast-flowing water below them. This waterflow, combined with the vertical height of the barriers, should exceed fish leaping abilities.

WATERSHED APPROACHES TO DECISIONMAKING

The watershed approach is a coordinating framework for water resource management that focuses public and private sector efforts on the highest priority problems within hydrologically defined geographic areas, taking into consideration both ground and surface water. Reclamation supports watershed approaches that aim to resolve water quantity, quality, and management issues while balancing economic, social, and environmental needs. The foundation of a watershed approach is threefold: partnerships, geographic focus, and sound management based on strong science and data. Efforts to resolve issues through a watershed approach help Reclamation meet a broad spectrum of



Irrigation is one of many competing water needs in the Klamath River basin.



goals to increase water availability, protect fish and wildlife habitat, and ensure reliable water and power supplies.

Glen Canyon Dam Adaptive Management Program

The Glen Canyon Dam Adaptive Management Program provides an organization and process for cooperative integration of dam operations, downstream resource protection and management, and monitoring and research information to protect the values for which Glen Canyon National Recreation Area and Grand Canyon National Park were created. In this dynamic process, led by Reclamation, stakeholders of diverse interests and disciplines come together to recommend management actions to the Secretary of the Interior.

The Glen Canyon Dam Adaptive Management Work Group seeks consensus on recommendations for protecting downstream resources and

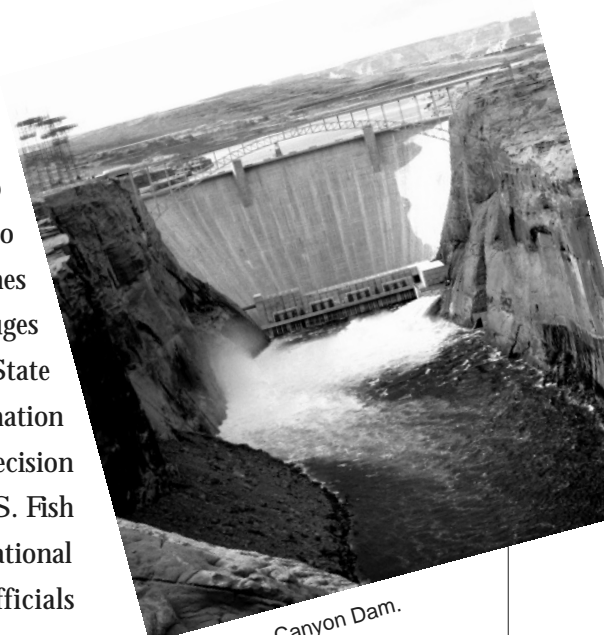
striking a wise balance on river operations. The group cites the following vision and mission in its strategic plan:

The Grand Canyon is a homeland for some, sacred to many, and a national treasure for all. In honor of past generations, and on behalf of those of the present and future, we envision an ecosystem where the resources and natural processes are in harmony under a stewardship worthy of the Grand Canyon.

The strategic plan also contains specific goals and management objectives for the various resources affected by dam operations. As a key part of adaptive management, scientific experimentation and monitoring will evaluate success and provide feedback to program managers.

Klamath Basin Water Crisis

The Klamath Project has operated for nearly a century to provide a reliable water supply to 210,000 acres of farms and ranches and to two national wildlife refuges near the California-Oregon State line. On April 6, 2001, Reclamation announced its water allocation decision for the Klamath Project after U.S. Fish and Wildlife Service and National Marine Fisheries Service officials



Glen Canyon Dam.

finalized biological opinions for project operations in this critically dry water year. Based on those opinions and the requirements of the Endangered Species Act, Reclamation announced that no water would be available from Upper Klamath Lake to supply farmers of the Klamath Project. Based on estimates of water availability, about 70,000 acre-feet, supplied by Clear Lake and Gerber Reservoirs, was available to irrigate the basin's east side.

In May 2001, Reclamation, in partnership with the Oregon Water Resources Department, the California Department of Water Resources, and the California Governor's Office of Emergency Services, began developing emergency groundwater supplies to assist drought-stricken agricultural water users. Reclamation provided funding and technical support to supplement drilling efforts in California and groundwater development actions in Oregon. Local water districts and landowners directly implemented the actions with assistance from the State water resources agencies and Reclamation, as well as irrigation districts, county governments, and tribal representatives. Involved agencies initially committed \$9.5 million for these drought relief programs.

On July 24, 2001, Secretary of the Interior Gale Norton announced the release of about 75,000 acre-feet of

water from Upper Klamath Lake for livestock, to provide critical recharge for some wells, and to help save pastures, alfalfa, and hay crops.

On August 7, 2001, several environmental groups filed a lawsuit challenging the water release. They stated that, according to the biological opinion, any extra water must go to the Lower Klamath National Wildlife Refuge to support waterfowl and wintering bald eagles. A deal was then negotiated with two irrigation districts to buy 2,700 acre-feet of water from Clear Lake Reservoir for the refuges. In September and October, Reclamation provided 6,300 acre-feet and 8,600 acre-feet of water, respectively, supplied by area irrigators to help replenish the refuges.

Reclamation continues to work with the above agencies, as well as PacifiCorp (an Oregon-based electrical energy producer), the California Waterfowl Association, irrigation districts, the tribes, and others in a mediation process to find a balance among the demands for water that will be acceptable to all interests and sustainable through a range of water year types.

Platte River Recovery Program -
Nebraska, Wyoming, and Colorado

The Platte River Recovery Program is an ongoing collaborative effort with other Federal agencies, State governments, water users, and conservation groups to jointly prepare

and implement a recovery program for the Platte River. In July 1997, the governors of Colorado, Wyoming, and Nebraska and the Secretary of the Interior signed a cooperative agreement to develop a recovery program for endangered species along the central Platte River in Nebraska. The agreement, which was extended until June 2003, will enable water-related Federal activities to proceed in compliance with the Endangered Species Act without the need for full consultation on individual projects. A basinwide, cooperative approach is more efficient and equitable because actions to improve habitat can be coordinated and combined. This approach also provides greater regulatory certainty for water users than project-by-project consultations. Actions to improve habitat are coordinated and combined.

The cooperative agreement provides strong incentive for water users to participate by complying with the Endangered Species Act during development of the recovery program. When implemented, full regulatory certainty will be provided to water users for 13 years, the first increment of the program.

National Irrigation Water Quality Program

The National Irrigation Water Quality Program (NIWQP) is an intradepartmental program that evaluates Department of the Interior irrigation projects and related impacts

on endangered species, migratory birds, and national wildlife refuges; assesses legal responsibilities associated with environmental laws; develops and evaluates alternatives; and implements remediation. In FY 2001, \$2.5 million were spent on these activities. NIWQP is the only departmental program that evaluates irrigation drain water and possible toxic levels of naturally occurring contaminants. The program is managed by Reclamation on behalf of the U.S. Geological Survey, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs, who work cooperatively on program oversight and technical issues.

Current project areas are the Salton Sea area, California; Kendrick Project, Wyoming; Middle Green River area, Utah; and Gunnison and Colorado Rivers, near Grand Junction, Colorado. Activities in FY 2001 included working with groups of local, State, and other Federal interests in reaching water quality standards, mitigation efforts, and demonstration projects to develop alternatives for remediation. These activities strive to protect agricultural and fish and wildlife benefits, while helping to meet water quality standards and ensuring compliance with the Endangered Species Act and the Migratory Bird Treaty Act. These efforts have resulted in reduced Federal expenditures by cost sharing with State and local agencies.



Whooping cranes (top) and piping plovers (bottom) are among the species the Platte River cooperative agreement seeks to protect.

Reclamation manages 348 reservoirs with a total storage capacity of 245 million acre-feet of water. (An acre-foot supplies enough water for a family of four for 1 year.) Reclamation's 58 powerplants generate an average of 42 billion kilowatthours annually. Reclamation's goal is to operate its facilities cost effectively and ensure they provide safe, reliable supplies of water and power that are critical to maintaining the health and comfort of citizens throughout the West.

Partial funding for site security programs is provided under this program activity category, as well as

under the Facility Maintenance and Rehabilitation category. For simplicity, discussion of site security accomplishments in this report is presented under the Facility Maintenance and Rehabilitation category.

POWER BENCHMARKING

The cost per megawatt capacity is an indicator of how well Reclamation operates its facilities and is used to benchmark its operational effectiveness against other private and public hydropower facilities. For FY 2001, Reclamation achieved a \$6,063 cost per megawatt of power. This result is

GPRA Goals for the Facility Operations Program Activity

Performance Goal #1 - Deliver or release water (no less than 28 million acre-feet) from Reclamation-owned and operated facilities.

Performance Measure - Actual acre-feet of water delivered. FY 2001 Plan: 28 million acre-feet.

Data Source - Water records and local data bases.

Result - Exceeds target. FY 2001 actual: 29.1 million acre-feet.

Performance Goal #2 - Deliver power to meet Reclamation's contractual commitments 100 percent of the time.

Performance Measure - Number of megawatt hours/number of megawatt hours contracted for.

Data Source - Power records maintained by Reclamation.

Result - On target.

Performance Goal #3 - In FY 2001, attain power production costs per net generation in megawatt capacity that rank in the upper 25th percentile (ranked lowest to highest) for comparable hydropower facilities.

Performance Measure - Power production costs (\$)/net generation in megawatt capacity. FY 2001 Plan: \$7,100.

Data Source - Power Operations and Maintenance Reports.

Result - Exceeds target. FY 2001 actual: \$6,063.

slightly below (better than) the target dollar amount and within the upper 25th percentile of lowest cost hydropower facilities.

Reclamation benchmarked the powerplants at Hoover, Davis, and Parker Dams to ensure efficient and cost-effective operations. In FY 2001, Reclamation decreased the operational costs at the Hoover Dam Powerplant by more than \$500,000 and increased the powerplant's reliability by installing a computerized control system. As a result, the Hoover Dam Powerplant was listed as a leading performer in operations in a comparison of similar hydroelectric facilities worldwide. Hoover Dam Powerplant also ranked in the top half of all such facilities for maintenance. Compared with similar hydroelectric facilities around the world, Davis Dam and Parker Dam Powerplants were leading performers in both operation and maintenance for the fourth year in a row.

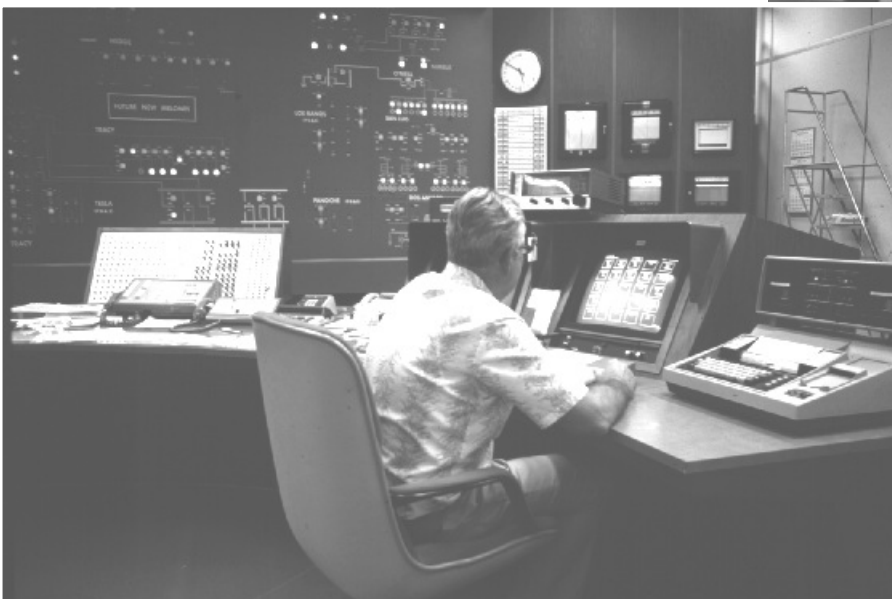
POWER ASSISTANCE

Low water conditions in the Upper Colorado River Basin continued into

FY 2001, affecting hydropower generation from the Colorado River Storage Project. Four main storage units make up the Colorado River Storage Project: (1) the Glen Canyon Unit in Arizona, (2) the Flaming Gorge Unit in Utah, (3) the Wayne N. Aspinall Unit in Colorado (with Blue Mesa, Crystal, and Morrow Point Dams), and (4) the Navajo Unit in New Mexico. Diminished hydroelectric generation, combined with power shortages in the Western United States, contributed to volatile prices and power system emergencies, as evidenced by power problems in the State of California.

During emergency events, Reclamation operates its power facilities under reliability criteria established by the North American Electric Reliability Council and the Western System Coordinating Council. The emergency events occurring in California were

Creative operations at several Reclamation facilities made it possible to assist California in its power crises.



unusual, and unique arrangements were necessary to help avert Stage III power blackouts. (Stage III events are emergencies that occur when power companies cannot obtain more power, and controlled blackouts result.)

Although utilities in California are not Colorado River Storage Project power customers and there is no transmission contract path to deliver Glen Canyon power to California, the potential risks to human health and safety during power blackouts prompted Reclamation to provide assistance. The combined efforts of Reclamation and the Western Area Power Administration in modifying system operations were successful in providing assistance to California during eight Stage III events.

CONTRACT RENEWAL

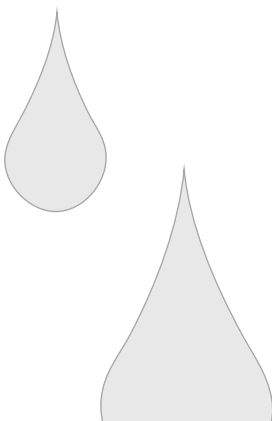
Many Reclamation water supply contracts are up for renewal. Reclamation is committed to expediting the renewal process, while meeting all legal and regulatory requirements.

Central Valley Project Contracts

In accordance with Section 3404(c) of the Central Valley Project Improvement

Act (CVPIA), Reclamation is continuing the process of renewing up to 114 Central Valley Project water service contracts. There are 69 interim renewal contracts and 43 existing long-term contracts subject to early renewal under CVPIA as well as two new contracts executed under CVPIA. These 114 contracts include an annual maximum quantity of approximately 5.6 million acre-feet of water and provide water service to approximately 3.2 million irrigable acres of land and an urban population of more than 4.3 million.

After completing a water needs analysis for the long-term contract negotiations, Reclamation released its initial draft long-term contract in November 1999. By the end of FY 2001, Reclamation had executed 27 long-term water service renewal contracts and negotiated an additional 22 long-term contracts. The remaining long-term contracts are in various stages of negotiation, and environmental documentation is underway. Lastly, three long-term contracts are being deferred until separate actions outside the scope of contract renewal are completed.



As well as ensuring operations, Reclamation must protect its facilities from deterioration due to age, natural disturbances, and threats to security. Proper maintenance is key to ensuring reliable and safe delivery of water and power to Reclamation's customers.

A forced outage rate measures the amount of time powerplants suffer unplanned shutdowns due to equipment failure and other operational or maintenance problems. The industry average forced outage rate is 3 percent of the total operating hours within a year. In FY 2001, Reclamation exceeded this target by attaining a 1.59-percent forced outage rate.

SAFETY OF DAMS PROGRAM

Reclamation fosters public safety by providing appropriate maintenance and necessary modifications at its facilities. This work includes activities under the Safety of Dams Program. In FY 2001, Reclamation achieved the following accomplishments:

- ▶ Completed 40 comprehensive facility reviews and 43 periodic facility reviews.
- ▶ Completed Safety of Dams modifications at Salmon Lake Dam, Okanogan Project, Washington, to address risks associated with seismic loads and seepage through the embankment.

- ▶ Completed Safety of Dams modifications at Casitas Dam, Ventura Project, California, to address risks associated with seismic loads on the embankment and foundation.
- ▶ Began Safety of Dams modifications to the following dams:
 - Wickiup Dam, Deschutes Project, Oregon
 - Clear Lake Dam, Klamath Project, California-Oregon
 - Avalon Dam, Carlsbad Project, New Mexico
 - Horsetooth Dam, Colorado-Big Thompson Project, Colorado
 - Caballo Dam, Rio Grande Project, New Mexico

Facility Maintenance and Rehabilitation

GPRA Goal for the Facility Maintenance and Rehabilitation Program Activity

Performance Goal - Attain a 3-percent or lower forced outage rate for Reclamation's hydropower generating units where cost/benefit analysis justifies expenditures.

Performance Measure - Number of hours out of service due to forced outage/8,760 hours per year. FY 2001 Plan: 3 percent.

Data Source - Power Operations and Maintenance Reports.

Result - Exceeds target. FY 2001 actual: 1.59 percent.

- ▶ Conducted a test filling of Senator Wash Dam, California, to determine the extent and effects of foundation seepage on the dam's operation.
- ▶ Decided to make no further modifications at Cedar Bluff Dam, Kansas, and Anita Dam, Montana.

Safety of Dams Highlight - Horsetooth Reservoir, Colorado

In FY 2001, Reclamation began Safety of Dams modifications to the four dams (Horsetooth, Soldier Canyon, Dixon Canyon, and Spring Canyon) that impound Horsetooth Reservoir. These modifications will ensure that continued long-term operation of the dams does not present unacceptable risks to public safety and welfare.

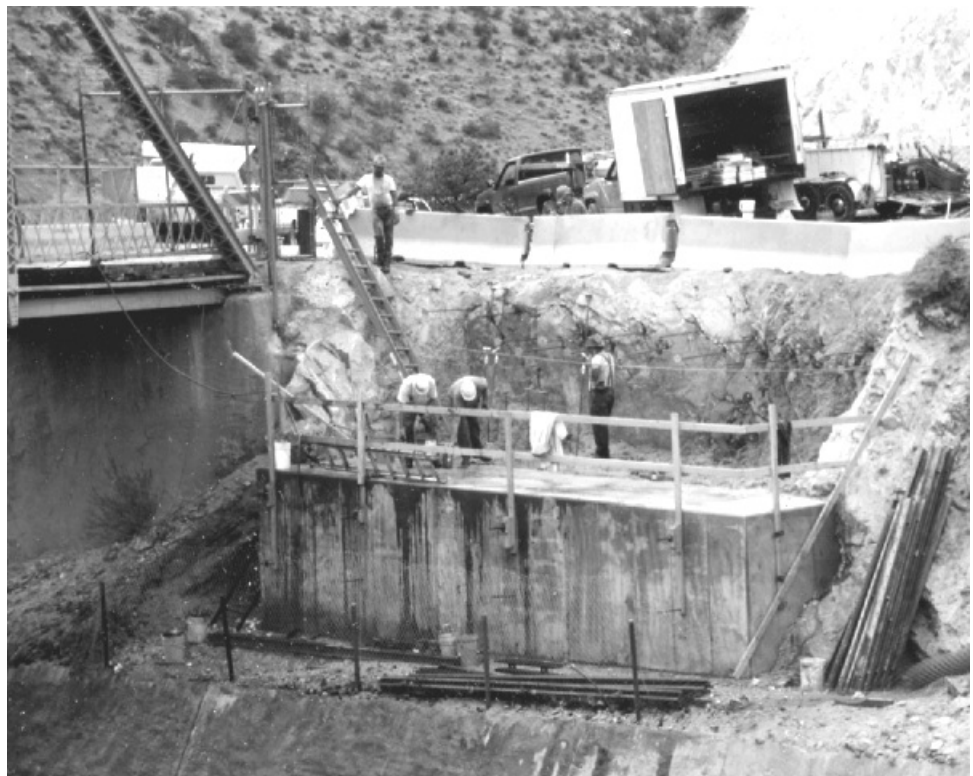
Total project costs are estimated at \$105 million. Through the end of FY 2001, Reclamation completed final designs, obtained public support of the proposed work plan, and awarded two major contracts. The first construction contract for work on Horsetooth Dam was awarded to Delhur Industries of Port Angeles, Washington, on February 9, 2001, for \$7.3 million. The second contract for work on Soldier Canyon, Dixon Canyon, and Spring Canyon Dams was awarded to Delhur Industries on September 13, 2001, for \$20.3 million.

ARROWROCK DAM OUTLET WORKS RESTORATION PROJECT

Reclamation began a multimillion-dollar project to rehabilitate outlet works at Arrowrock Dam near Boise, Idaho. The project, which will take nearly 3 years to complete, will upgrade a facility that still has its original Ensign valves, installed in 1915. RSCI, a contractor from Meridian, Idaho, was awarded the \$9.7-million construction contract, expected to be completed in March 2004. Construction will be performed during the winter months of each year to reduce impacts on dam and reservoir operation.

Reclamation completed Arrowrock Dam in 1915 as part of the Boise Project in southwest Idaho. Once new construction is completed, neither Arrowrock Reservoir nor Lucky Peak Lake, located directly downstream, will need to be drawn down to low water levels for maintenance, thus maintaining storage levels.

Construction crews are on location at Arrowrock Dam, building a new access bridge and preparing to replace Ensign valves in the nearly 90-year-old structure.



RECLAMATION SECURITY PROGRAMS

Reclamation manages a number of ongoing security programs designed to handle various types of emergencies and to ensure continuity of operations.

Site Security Program

Reclamation has 358 dams that could cause loss of life and property damage should failure occur. There are also 58 hydroelectric powerplants that are

critical to the national infrastructure. Together, these facilities receive millions of visitors annually. In addition to these facilities, Reclamation has office buildings that provide working space for approximately 6,000 employees as well as contractors and customers. Because of the possibility of sabotage and terrorism at these facilities, Reclamation conducts security reviews and assessments and has implemented security upgrades and enhancements.

In FY 2001, almost \$2.9 million was spent on physical security upgrades at Reclamation facilities. Approximately \$1.4 million was spent on program activities, which included:

- ▶ Providing periodic security reviews and vulnerability assessments of water and power facilities and employee-occupied office buildings.
- ▶ Providing guidance and assistance in the areas of employee security training and awareness.
- ▶ Providing technical advice on recommended security upgrades.



In FY 2001, Reclamation began Safety of Dams modifications at Caballo Dam (top) and completed them at Casitas Dam (bottom).



- ▶ Coordinating the execution and maintenance of law enforcement agreements with local jurisdictions.
- ▶ Participating in and providing support to the Denver FBI Joint Terrorism Task Force.

Emergency Planning and Disaster Response Program

The Emergency Planning and Disaster Response Program encompasses three major activities: (1) disaster response, (2) emergency notification systems, and (3) continuity of operations. In FY 2001, \$239,000 was spent to manage these activities.

Within the disaster response component, Reclamation has provided management and administration of Reclamation personnel to support the Federal Emergency Management Agency and the U.S. Army Corps of Engineers in disaster operations. Reclamation is designated to support these efforts for the Department of the Interior. Reclamation has supported 32 disaster response operations for other agencies on a reimbursable basis since 1993. This assistance also helps Reclamation staff prepare for potential emergencies.

The Emergency Notification System was established departmentwide to ensure that incident information can be transmitted expeditiously from the field

to the Department of the Interior on a 24-hour basis. The system is also used by area and regional offices to obtain emergency technical assistance from Reclamation's Technical Service Center in Denver, Colorado.

The continuity of operations program component develops overall guidance, provides technical assistance, and maintains oversight by developing plans and running test exercises at facilities throughout Reclamation. These plans and exercises help ensure Reclamation offices can continue essential functions if impacted by natural or human-caused disasters.

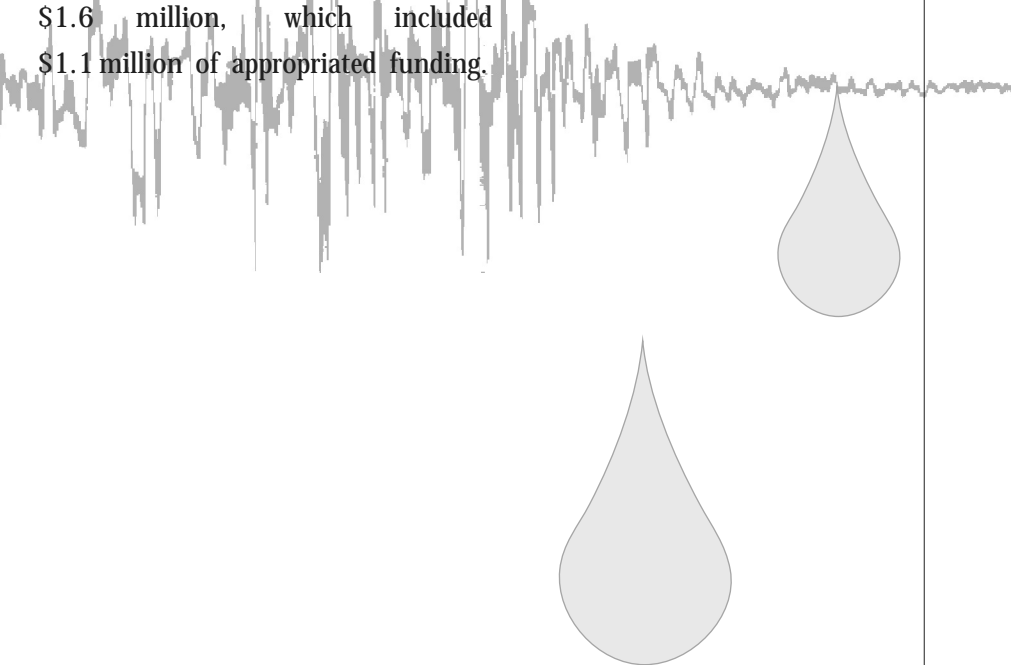
Water Quality Hazard Planning

Reclamation developed a process to facilitate the addition of a Water Quality Hazard Specific Appendix to existing Emergency Management Plans in response to the September 11, 2001, terrorist attacks on the United States. This process will improve Reclamation's ability to provide emergency notification to agricultural, municipal, and industrial water customers if a biological, chemical, or radiological water hazard terrorist attack is observed, detected, or suspected to have occurred in Reclamation-managed water supplies.

Seismic Safety Program

In response to a series of Executive orders and public laws, Reclamation's Federal Building Seismic Safety Program identifies those Reclamation-owned buildings that cannot provide minimum performance during anticipated earthquakes. Rehabilitation concepts, cost estimates, and risk reduction recommendations are prepared for high-risk, seismically deficient buildings. These recommendations are peer reviewed by independent experts. Nonreimbursable program funding is allocated for risk identification activities, and reimbursable program funding is made available for risk-reduction projects.

In FY 2001, the program continued the risk identification and reduction program by screening 109 buildings, evaluating 9 buildings, completing peer review and planning refinement on 4 buildings, completing rehabilitation action plans for 10 buildings, and starting or completing risk-reduction projects on 4 buildings. The total program budget in FY 2001 was \$1.6 million, which included \$1.1 million of appropriated funding.



Reclamation is committed to achieving organizational effectiveness and operating in the best interest of the American public. Reclamation's goals under this program activity include improving customer service and business and financial practices, while increasing workforce diversity and accessibility to the workplace and public areas.

TITLE TRANSFER

Reclamation is in the process of transferring title to facilities to non-Federal entities throughout the Western United States in accordance with the

promoting greater local control and more "citizen-centered" government. Some of Reclamation's title transfer accomplishments are discussed below.

Nampa & Meridian Irrigation District

Reclamation officially transferred title to certain water delivery systems in Idaho to the Nampa & Meridian Irrigation District (NMID) as part of an initiative to transfer title to those facilities that can be effectively managed by non-Federal entities. Commissioner John W. Keys, III attended the title transfer ceremony on August 14, 2001.

NMID diverts water from the Boise River into a system of canals and laterals, known as the Ridenbaugh Canal system, for delivery to district lands and provides drainage for district lands through a system of drainage ditches. No water rights or water storage facilities will be transferred or affected by the proposed action.

Since 1878, when the Ridenbaugh Canal was first constructed, NMID and its private predecessors have been responsible for operating and maintaining NMID's delivery and drainage systems. NMID's boundaries encompass approximately 125 square miles in Ada and Canyon Counties in southwestern Idaho, delivering water to about 64,000 irrigable acres. Most of the cities of Boise, Nampa, and Meridian fall within NMID boundaries.

GPRA Goal for the Policy and Administration Program Activity

Performance Goal - Complete four title transfer process agreements and four terms and conditions agreements with districts interested in owning and managing projects and transfer four titles authorized by the Congress.

Performance Measure -

- a) Number of projects, or parts of projects, for which an agreement on goals and process has been completed. FY 2001 Plan: 4.
- b) Number of projects, or parts of projects, for which title transfer agreements have been completed. FY 2001 Plan: 4.
- c) Number of titles transferred. FY 2001 Plan: 4.

Data Source - Agreements and titles.

Result -

- a) Below target. FY 2001 actual: 3.
- b) Exceeds target. FY 2001 actual: 5.
- c) Exceeds target. FY 2001 actual: 5.

U.S. Department of the Interior's management reform goals. Title transfer can play an important role in

The lands that NMID serves are located south of the Boise River in what is commonly called the Boise Valley.

NMID has met its repayment obligation to the United States for construction of the title transfer segments. Public meetings were held and comments were recorded as required for environmental compliance.

Palmetto Bend Project

Title to the Palmetto Bend Project near Corpus Christi, Texas, was transferred from the United States to the Lavaca-Navidad River Authority (LNRA) on June 26, 2001, at a signing ceremony in Austin, Texas. Public Law 106-512, enacted November 13, 2000, authorized the discounted prepayment of the district's repayment obligation and the transfer of title to LNRA. Prior to signing of the conveyance document, a discounted payment of over \$49 million was made to satisfy the State's remaining financial obligation to the United States. Facilities transferred included Palmetto Bend Dam, Lake Texana, and associated recreation facilities.

Title transfer of these facilities will provide greater local control, while reducing Reclamation's long-term obligations and liabilities for project benefits that are largely local in nature.

Robert B. Griffith Project

On July 3, 2001, Reclamation transferred title for the Robert B. Griffith Water Project in southern Nevada to the project operator, the Southern Nevada Water Authority.

Constructed jointly by the State of Nevada and Reclamation in the 1970s and early 1980s, the project pumps Colorado River water from Lake Mead, behind Hoover Dam, and delivers it to the Las Vegas metropolitan area, including Nellis Air Force Base and Boulder City, Nevada.

In completing the title transfer, Reclamation received \$121 million from the State of Nevada for project repayment. In addition, the transfer relieved Reclamation of the responsibility and liability for the facilities and appurtenant lands. Nevada taxpayers saved \$13 million in project repayment costs, and the water authority gained the ability to more effectively manage the system and perform routine system operations and maintenance activities without having to first obtain Reclamation's permission.

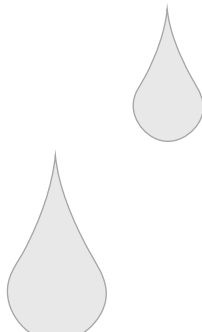
The transfer will relieve the United States from oversight responsibilities and long-term liability for operation and maintenance of the dam and reservoir, as well as associated project activities such as recreation.

Carlsbad Irrigation Project

Carlsbad Irrigation Project was transferred to the Carlsbad Irrigation District following passage of the Carlsbad Irrigation Project Acquired Land Transfer Act of June 26, 2000. The Act authorized transfer of mineral rights to certain preproject lands, as well as ownership of the irrigation and drainage system serving agricultural lands. An environmental assessment, an agreement with the State of New Mexico addressing cultural resources, and the transfer deed were all completed prior to a transfer ceremony held on

July 18, 2001, when the quitclaim deed was presented to the Carlsbad Irrigation District.

This transfer will relieve Reclamation from long-term liability and other obligations associated with ownership and management of project lands and facilities. In turn, the district will gain greater control over management decisions.



Reclamation believes that maintaining management and financial integrity and accountability in all programs and operations: (1) is critical for good government, (2) demonstrates responsible stewardship over assets and resources in its care, (3) ensures high-quality, responsible leadership, (4) ensures the sound delivery of services to customers, and (5) maximizes desired program outcomes. Reclamation has developed and implemented management, administrative, and financial system controls which reasonably ensure that:

- ▶ Programs and operations achieve their intended results efficiently and effectively.
- ▶ Resources are used in accordance with Reclamation's mission.
- ▶ Programs and resources are protected from waste, fraud, and mismanagement.

- ▶ Laws and regulations are followed.
- ▶ Reliable, complete, and timely data are maintained and used for decisionmaking at all levels.

Further, Reclamation firmly believes that the timely implementation of Inspector General and General Accounting Office audit recommendations is essential to improve efficiency and effectiveness in its programs and operations and to achieve integrity and accountability goals. As a result, Reclamation has instituted a comprehensive audit followup program to ensure that audit recommendations are implemented in a timely and cost-effective manner and that disallowed costs and other funds due from contractors and grantees are collected or offset.

Management Integrity and Accountability