# **OVERVIEW**

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

# Water and Energy

# Management and Development

Almost 29.8 million acre-feet of water was delivered under all contracts in fiscal year 1998. Reclamation seeks ways to meet current and future water quantity, water quality, and environmental needs. Reclamation emphasizes enhanced management of existing facilities and appropriate nonstructural or structural solutions.

# INCREASE WATER

Competition for finite water resources requires maximizing the efficient use of developed water supplies. Greater efficiency enhances the delivery of water to existing uses and, in some circumstances, will make water available for other water needs consistent with applicable Federal, State, and tribal law and other requirements.

As requested by the Secretary of the Interior (Secretary), Reclamation continues to work with the Department of the

Interior (Interior) and representatives of several California water agencies to assist California in developing a plan for reducing its Colorado River water use to its basic apportionment of 4.4 million acre-feet as that becomes necessary. This will help ensure that the river can continue to meet the needs of all the Basin States.

# SURPLUS WATER AGREEMENTS

Reclamation and three entities executed surplus water agreements to beneficially use approximately 109,000 acre-feet of temporary supply of surplus Colorado River water during calendar year 1998.

Reclamation restructured water use rates on the Central Valley Project's Friant System to encourage the use of surplus water to recharge groundwater. Reclamation also restructured water rates from New Melones Reservoir to encourage diversions of excess flows to reduce flood damage.

### WATER TRANSFERS

Reclamation approved 85 water transfers involving approximately 136,000 acre-feet of Central Valley Project water. Most of these transfers are for agricultural purposes and helped water districts meet short-term water management goals. Reclamation is developing a water transfer clearing-house to further facilitate efficient water use.

Reclamation also approved:

- A first-of-its-kind, long-term water transfer of conserved water available as a result of improved efficiency and water management efforts. Up to 20,000 acre-feet per year is available from the Glenn-Colusa Irrigation District to neighboring agricultural water users experiencing water shortages.
- Transfer of approximately 100,000 acre-feet of Central Valley Project water, which will be used to meet refuge water supply requirements within the Central Valley as required under the Central Valley Project Improvement Act.

### WATER RECYCLING— RECLAMATION AND REUSE

The reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater and naturally impaired groundwater and surface water are important ways to extend scarce water supplies. In fiscal year (FY) 1998, Reclamation continued assisting States and communities to implement water recycling to:

- Reduce, postpone, or eliminate development of new or expanded water supplies
- Reduce or eliminate existing diversions from natural watercourses or withdrawals from aquifers
- Reduce demands on existing Federal water supplies

### WATER CONSERVATION

Reclamation put in place the Water Conservation Field Services Program in FY 1996 to:

- Encourage water conservation
- Assist water districts in developing and implementing effective water management and conservation plans
- Complement and support local conservation program efforts

Water recycling projects are being constructed or studied in Texas, Utah, New Mexico, Arizona, California, and Nevada.

Reclamation delivers water to about 10 million acres of irrigated land—about one-third of the irrigated acreage in the West.

The number of districts
Reclamation assisted in
developing or implementing
water conservation measures increased from 138 in
FY 1997 to 160 in FY 1998.

Reclamation average annual power production for the last 10 years has been 42 million megawatthours.

Production during FY 1998 was 51.9 million megawatthours.

 Foster improved water management on a regional, State, and watershed basis

In FY 1998, Reclamation's area offices provided technical and financial assistance to water use and management organizations in four areas: (1) water management planning; (2) conservation education; (3) demonstration of innovative technologies; and (4) implementation of conservation measures.

Reclamation established a "virtual water conservation center" on the World Wide Web at http://www. watershare.usbr.gov to help provide easy access to information about Reclamation's water conservation program activities and programs.

Reclamation also signed a landmark partnership agreement with the Natural Resources Conservation Service to "bridge the head gate" with coordinated delivery of water conservation services to the water district and the farm.

### YAKIMA RIVER BASIN Water Enhancement Project

After nearly a year of meetings, the Conservation Advisory Group (Group) completed a Draft Basin Conservation Plan for the Yakima River basin. This plan sets forth the mechanism for implementing

water conservation measures in the Yakima River basin that will improve streamflow and fish passage conditions. The Group, appointed by the Secretary of the Interior, includes representatives from such diverse constituencies as affected Native Americans, academia, and State fish and wildlife agencies. The Group's plan has been reviewed by the public, signed by the Commissioner, and is awaiting Secretarial affirmation.

Excellent partnerships continue with the Yakama Indian Nation, Bonneville Power Administration, The Nature Conservancy, and others. Joint accomplishments are being achieved, particularly in the areas of tributary streams habitat and instream flow improvement and in water quality and wetlands protection. The irrigation districts have been primary participants in nearly all activities.

# Power Resources

The electric utility industry is undergoing change as a result of Federal deregulation. Reclamation has responded by:

 Analyzing how deregulation will affect Reclamation's power program and developing strategies to meet changes

- Developing benchmarks to measure, compare, and evaluate Reclamation's performance against others in the power industry
- Improving communication with customers
- Developing approaches for developing and maintaining the skills of Reclamation's power employees
- Improving partnerships with other power industry organizations

A Direct Funding Agreement between the Pacific Northwest Region and Bonneville Power Administration (Bonneville) was implemented and has successfully completed its second year. Under the agreement, Bonneville funds the annual operation and maintenance costs of the power facilities in the Pacific Northwest. Reclamation received a maximum performance award from Bonneville by meeting or exceeding all of the performance indicators pursuant to the Direct Funding Agreement.

# COMPLETE PROJECTS UNDER CONSTRUCTION

All remaining construction on the Bonneville Unit of the Central Utah Project, for which Reclamation is responsible, was completed in FY 1998. The Central Utah Project was authorized by the Congress in 1956. Construction on Bonneville Unit features began in 1966; completed facilities include 6 dams, 8 major diversion dams, and 65 miles of aqueducts, tunnels, and pipelines.

Other federally funded construction completed during FY 1998 includes:

 Belle Fourche Unit in western South Dakota,

New turnout from buried pipe lateral on Belle Fourche Project. Buried pipe reduces water transport loss.



- serving 57,000 acres; rehabilitation restored reliability of the system, improved water efficiency, and reduced annual operation and maintenance costs. The rehabilitation work cost about \$67 million, of which \$4 million was a non-Federal cost share.
- Fish hatchery at Shasta, California; construction began in the fall of 1997 and was completed in early February 1998 for this year's winter salmon run.
- Salinity improvements to the East Highline Lateral were completed with the installation of more than 2 miles of concrete lining and buried pipe. An annual salt reduc-
- pipe. An annual salt reduc-

Shasta Fish Hatchery.

- tion of about 5,600 tons from the Colorado River Basin is anticipated from this first increment of the Hammond Project, New Mexico. About 54 miles of open laterals and canals in the Grand Valley area were also replaced with pipe.
- Significant residential development has taken place over the past 20 years on former Rio Grande Project lands that contain several miles of agricultural drainage ditches in southern El Paso County, Texas. Much of this development occurred without provisions for water, sewage, or solid waste removal facilities, resulting in contamination of these drainage ditches. This project placed several thousand feet of pipe in these drainage ditches, reducing health risks in the Colonias residential areas.

# FULFILL DBLIGATIONS TO INDIAN TRIBES

During FY 1998, Reclamation provided technical assistance of about \$5.5 million to approximately 81 tribes. For example, the Commissioner's Office provided emergency assistance to the Pueblo of San Ildefonso (New Mexico) to locate a supplemental well to back up their two existing wells that supply domestic water to more than 200 homes.

Reclamation participated in Interior's program to resolve Indian water rights claims through settlement when feasible. Reclamation expended approximately \$1.3 million for studies and investigations in support of negotiation and implementation teams, as well as providing leadership and staff support.

Reclamation supported several programs that train Indian tribal members to play a more dynamic role in managing their own water resources. This support includes a partnership between Reclamation and the Southwestern Indian Polytechnic Institute located in Albuquerque, New Mexico, to develop a Water Resources Technology Curriculum to train students and current tribal water managers in water treatment, management, regulation, delivery technologies, water rights, and other studies. Reclamation will provide funding assistance, water experts as instructors for short courses, and student internships and mentoring to assist students.

Reclamation supported the Secretary's Indian trust responsibility through a number of initiatives. Reclamation continued its implementation of its Indian trust policy, which calls for assessing potential impacts to Indian trust assets before taking any new actions, and has sought to avoid impacts whenever possible. Reclamation's support for Interior's Indian water rights program (discussed above) furthers the Secretary's Indian trust responsibility. The various educational initiatives discussed above are also intended to result in improved trust stewardship.

Reclamation issued guidance to accommodate access to and ceremonial use of Indian sacred sites and to avoid adversely affecting such sites in accordance with Executive Order 13007.

Major agreements or partnerships signed in 1998 include a Reclamation's Guidance on the Protocol for Consulting with Indian Tribal Governments was signed on April 17, 1998. The guidance is intended to improve Federal-tribal communication.

Construction of Mni Wiconi rural water project in South Dakota.



Bureau of Reclamation
Office of Native American Affairs Program

Native American Affairs	FY 1997	FY 1998	FY 1999
Negotiations and implementations	\$1,491,000	\$1,300,000	\$1,000,000
Technical assistance	3,835,000	5,460,000	4,321,000
Total funding (including administration)	\$7,778,000	\$9,339,000	\$7,680,000

Note: The FY 1997 and FY 1998 annual amounts include carryover funds.

Master Repayment Contract with the Gila River Indian Community, Arizona, signed by Commissioner Martinez. This signing was the culmination of nearly 6 years of negotiations, planning, and environmental studies. Under the contract, Reclamation will provide funds through the Central Arizona Project so the community can build an on-reservation distribution system to deliver its water allocation. This water will meet on-reservation agricultural, municipal, and industrial water needs.

Reclamation also continued construction on the Mni Wiconi rural water project, which will serve more than 50,000 customers in nine counties of central South Dakota including the Pine Ridge, Rosebud, and Lower Brule Sioux Indian Reservations. Work on the 13-milliongallon-per-day water treatment plant and the first 40 miles of conveyance pipeline will be completed in 2000. FY 1998 funding totaled \$26.3 million.

Through FY 1998, \$106 million has been expended of the \$311-million total project cost.

### ANIMAS-LA PLATA

In late FY 1998, the Administration announced a revised proposal to build the Animas-La Plata Project to implement settlement of the Southern Ute and Ute Mountain Ute Tribes' water rights. The plan provides storage benefits through a downsized reservoir for municipal and industrial uses to benefit the tribes and the non-Indian project sponsors and will comply with all requirements of all environmental laws.

The bulk of the water in the reservoir would be dedicated to the municipal and industrial uses of the two Colorado Ute Tribes, with some water reserved for the Navajo Nation, Animas-La Plata Water Conservancy District, and San Juan Water Commis-

sion. The Administration's plan also proposes to provide approximately \$40 million to enable the tribes to purchase those water rights that would not be stored in the reservoir. Discussions with the two Colorado Ute Tribes and other project sponsors are ongoing.

# MAINTAIN AND PROTECT WATER QUALITY

# STEWART LAKE WATERFOWL MANAGEMENT AREA

An interagency team of Reclamation, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, and the Utah Division of Wildlife Resources began reducing selenium impacts to endangered fish and migratory waterfowl in Stewart Lake, Utah.

The Stewart Lake Waterfowl Management Area is adjacent to the Green River near Vernal, Utah. It receives selenium contaminated irrigation drainwater, causing unacceptable selenium hazards to endangered fish and migratory waterfowl in Stewart Lake. Phase I cleanup activities, completed in June 1998, included excavating a new inlet channel, excavating channels to drain Stewart Lake, extending drains to the Green River, and monitoring water, sediment, and biota. Over the next few years, Phase II will

use an adaptive management process to evaluate results of both phases to determine if additional remediation is required.

Total construction costs are estimated to be \$1 to \$1.4 million.

## COLORADO RIVER BASIN SALINITY CONTROL PROGRAM

In FY 1998, Reclamation began its third bid solicitation process for projects to control salinity in the Colorado River Basin under new basinwide authorities, with costs ranging from \$25 to \$35 per ton. The salinity program now has nine projects underway in Utah, Colorado, and New Mexico. Even with Reclamation's

Paradox Valley Unit continues to remove up to 130,000 tons of salt annually from the Colorado River Basin.



Reclamation is dedicated to preserving water quality in wetlands such as this.

management costs, the program will meet its long-term goal to keep costs below \$50 per ton (compared to \$70 per ton previously).

### SALTON SEA STUDY

Reclamation and the Salton Sea Authority entered into a costsharing agreement. This agreement initiated an 18-month environmental program designed to restore or prevent further water quality degradation of the Salton Sea in Southern California.

# RESEARCH AND TECHNOLOGY TRANSFER

The Research and Technology Transfer Program has emphasized activities in the areas of water and environmental resources and facilities and infrastructure resources. Partnering with outside entities is an integral component of the program. In FY 1998, the overall program was leveraged approximately 1.3 times through contributions from outside partners. Major program accomplishments include:

 Development and application of database and computer modeling

- technologies to improve decisionmaking for water resources
- Development of water conservation tools to design new water measurement flumes and to evaluate existing flumes
- Award of 19 cost-shared contracts to develop more cost-effective methods to desalinate water
- Development of improved fish passage alternatives and traveling fish screens and louvers
- Development of unique biocontrol pest management methods
- Development of an air core transformer for use on high voltage equipment
- Development of innovative testing devices for determining insulation deterioration in power generators
- Development of techniques to ensure long-term durability of canal lining
- Development of improved grouting procedures for gate repairs on dams

## International Affairs Program

During FY 1998, Reclamation was reimbursed \$3.2 million

been identified to remove and prevent purple loosestrife infestations.

A biological control insect has

for providing technical assistance to Australia, Brazil, Canada, Jordan, Puerto Rico, Saudi Arabia, Taiwan, the Northern Mariana Islands, and the U.S. Virgin Islands. Reclamation has also been actively cooperating with technical counterparts in Canada, Spain, and South Africa, as well as contributing to the Middle East Peace Process desalination activities.

Reclamation provided 14 specifically designed reimbursable programs, conducted a 1-week Modern Methods in Canal

Operation and Control Technical Workshop, and conducted a 2-week Dam Safety Operation and Maintenance Technical Seminar and Study Tour. Programs were developed for 70 visitor delegations to Reclamation offices and facilities.

Reclamation is designing and furnishing a mobile sea water reverse osmosis pilot plant which will provide the capability to perform research on water desalination in Saudi Arabia.

# Facility Operations

Currently, Reclamation manages and operates 348 reservoirs (with a total storage capacity of 245 million acre-feet), 59 hydroelectric powerplants, and more than 300 recreation sites. With these facilities, Reclamation:

- Delivers water to about 10 million acres of irrigated land—about one-third of the irrigated acreage in the West
- Delivers municipal, rural, and industrial water to more than 31 million people in the 17 Western States
- Provides water supplies that support habitat for wildlife refuges, migratory waterfowl, anadromous and resident fish, and endangered and threatened species
- Provides water to Native Americans through irrigation projects on 15 reservations and potable water supplies to residents on 9 reservations

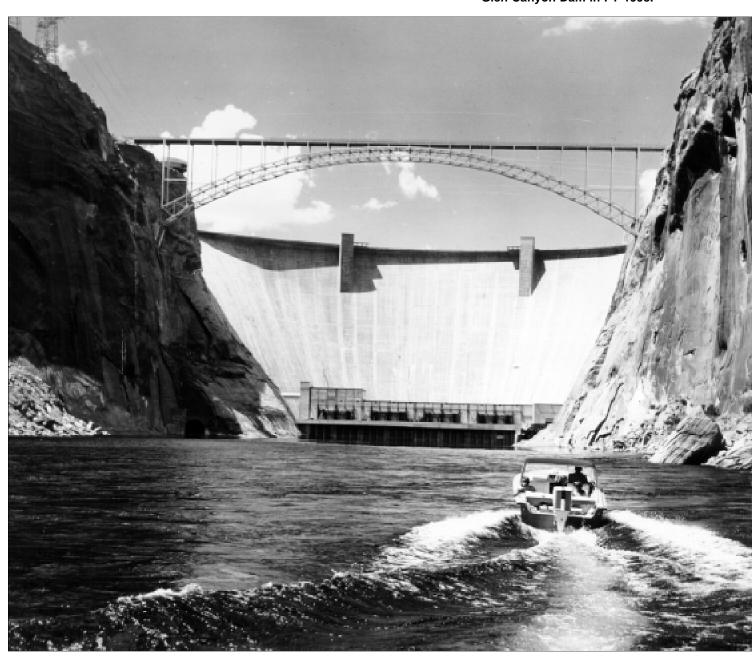
- Generates more than 40 billion kilowatthours of energy each year, making it the Nation's second largest producer of hydroelectric power and the fifth largest electric utility in the 17 Western States
- Provides significant flood control benefits throughout the West
- Provides water-based recreation activities for about
   90 million visitors a year
- Provides drought contingency planning and assistance to States and tribes

Agriculture, recreation, power dependent industries, municipal and industrial water service, and other related areas, including the construction industry, benefit from Reclamation's continued management of a finite, but variable, natural yearly water supply.

Reclamation released sufficient water from the Upper Basin to meet annual Colorado River Compact entitlements and, through adjustments in monthly volumes, was able to conduct a 2-day test flow from Glen Canyon Dam to benefit environmental resources. The flow used full powerplant capacity and was intended to deposit sediments above the

level of normal dam releases without the legal controversy of bypassing the powerplant. The flow followed several very large flood events on the Paria River, a tributary downstream of Glen Canyon Dam, which brought more than 2 million tons of clay, silt, and sand into the mainstem Colorado River. By following these flood events with a higher than usual powerplant release, it

Test flows for adaptive management were performed at Glen Canyon Dam in FY 1998.



The computerized system at Headgate Rock Dam saves Bureau of Indian Affairs about \$225,000 a year in operating costs.

was hoped that additional beach and sandbar building would occur. While scientific research results are not yet complete, it is felt that this flow was beneficial to the Grand Canyon.

Reclamation managed the Lower Colorado River system below Hoover Dam to prevent flooding while still meeting all contractual water requirements and providing surplus water supplies for beneficial uses. Reclamation provided Mexico an additional 200,000 acre-feet of water beyond treaty requirements.

Reclamation operates its facilities in cooperation with other Federal, State, tribal, and local agencies to prevent or minimize flood damage while considering the needs of water user contracts and protection of the environment and other factors. Reclamation and local communities are holding "table top" exercises simulating a flooding scenario to test emergency action plans. These exercises train Reclamation employees and those of other local agencies in how to handle such an event, if necessary.

Computerized canal and reservoir operating systems that enable remote operation were installed or completed at several Reclamation and Bureau of Indian Affairs powerplants, including:

Grand Coulee Dam, Washington

- Shasta Dam, California
- Headgate Rock Dam, Arizona
- Hoover Dam, Nevada



Water measurement devices like this one record the volume of irrigation water delivered.

Black Canyon, Anderson Ranch, and Deadwood Dams, Idaho

This breakthrough in technology allows the water manager:

- Instantaneous control over canal flows
- Accurate timing of water deliveries and reduction of waste
- Low capital investment for components
- Operation by solar power
- Easy installation and maintenance
- An expandable user-friendly system

By retrofitting low-cost, solarpowered automation features onto existing distribution facilities, Reclamation is assisting water districts, river commissioners, and canal companies to enhance water management. As water resources become increasingly scarce, improved management is essential.

The Allen E. Inman Powerplant Dedication Ceremony was held on May 6, 1998. The replacement powerplant at Minidoka Dam was renamed to honor Al Inman, who was a driving force behind the new powerplant. Inman perished along with seven other Reclamation employees in a plane crash near Montrose, Colorado, on October 8, 1997.

Hydropower generation availability of nonseasonal units increased from 84.6 percent in FY 1997 to 89.7 percent in FY 1998. The industry standard is at least 90 percent.

# A acility Maintenance and Rehabilitation

Reclamation's maintenance and rehabilitation program is critical to preserving Reclamation facilities, meeting Reclamation's mission, and protecting the Federal investment.

- Reclamation decreased the potential for flooding in the Yuma, Arizona, area by removing brush, raising and extending the bank line structure, and removing about 15,000 cubic yards of material along the Colorado River below Morelos Dam. Other improvements will preserve a levee that protects the Quechan Indian Reservation from flooding. Total cost of these efforts was about \$2 million.
- During FY 1998, Reclamation signed a project agreement with Western States
   Power Corporation to
   replace a transformer at
   Estes Powerplant in
   Colorado. Western States
   Power will provide

\$640,000. Also, Western States and the Northern Colorado Water Conservancy District are providing funding to construct a bypass at the Flatiron Powerplant at a cost of \$1.2 million.

- Three drum gates at Friant Dam, California, were replaced with crest gates.
- The spillway gates were repaired at Alcova Dam, Wyoming.
- The spillway at Kortes
   Dam, Wyoming, was
   repaired; and repairs are
   underway to damaged
   concrete on the spillway at
   Tieton Dam, Washington.
- Several repairs and modifications were completed at
  Folsom Dam, California,
  including repairing cavitation damage to the outlet
  works and replacing damaged concrete at the spillway stilling basin. Radial
  gates were also repaired.

Reclamation continues to strive to attain a 3-percent or lower forced outage rate for Reclamation's hydropower generating units. The percent of time facilities were out of service in FY 1998 was 1.07 percent, compared to 2 percent in FY 1997.

 The number 2 river outlet pipe that failed at Flaming Gorge Dam in 1997 was replaced, and modifications were made to the control system.

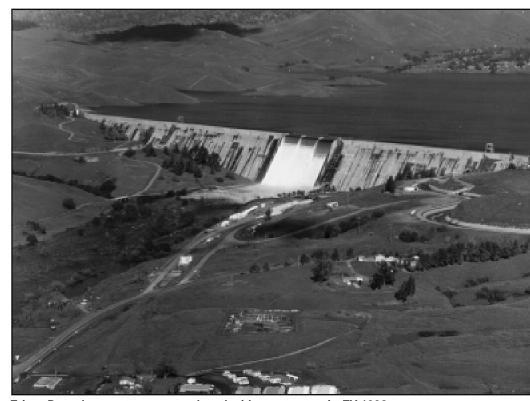
Reclamation personnel maintained facilities associated with the Closed Basin Division of the San Luis Valley, San Juan-Chama, Middle Rio Grande, Rio Grande, and Carlsbad Projects in New Mexico.
Significant actions included:

- Rehabilitation to provide new electrical service to the Heron Dam instrumentation well, thus eliminating an immediate safety threat from the old system
- River maintenance activities on the Rio Grande in New Mexico, to ensure effective transport of water for use by Mexico and provide flood protection and environmental enhancement for a 300-mile reach from Velarde to Caballo Reservoir

Other maintenance activities included the following:

 Completed installation of and successfully tested eight new jet flow gates at Hoover Dam. The new valves replaced outdated, difficult-to-operate needle valves installed at the dam in 1935, ensuring the dam

- can safely meet maximum flood or emergency water release requirements.
- Replaced original transformers installed in the early 1940s in the Parker Dam Powerplant, Arizona, with new "dry-type" transformers. These transformers, which result in more efficient operations and less maintenance costs, are environmentally friendly because they do not require oil and other hazardous materials.
- Continued an extensive and aggressive infrastructure rehabilitation program, including a \$3-million penstock coaster gate



Friant Dam drum gates were replaced with crest gates in FY 1998.

refurbishment at Shasta Dam, California. The facility control system, originally installed in the late 1970s, is being replaced by a state-of-theart modular computer system designed and installed by Reclamation staff.

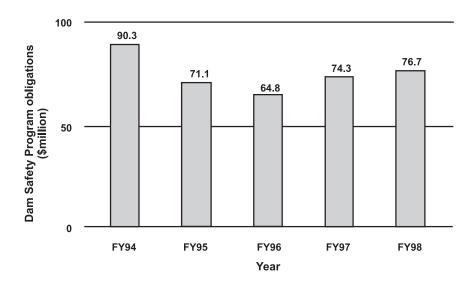
### DAM SAFETY

Throughout the 17 Western States, Reclamation has 457 dams and dikes, of which 362 would endanger people if a failure occurred. As structures age, continued safe performance becomes a greater concern. Reclamation places great reliance on dam safety activities to manage these risks.

Many of the rehabilitation and maintenance activities previously described help sustain Reclamation dams in a safe and operable condition. Additional specific dam safety activities include monitoring structural performance, developing and testing emergency plans, training dam operators, aggressively inspecting and evaluating facilities to detect developing problems, and implementing risk reduction Safety of Dams modifications as determined reasonable.

Most of these dam safety activities are funded by the Dam Safety Program. The goal of Reclamation's Dam Safety Program is to identify all structures that pose unreasonable risks to public safety, property, the environment, and cultural resources and to take appropriate measures to reduce and manage risks in an efficient and cost-effective manner.

In 1998, \$76.7 million was obligated by the Dam Safety Program. Highlights of the FY 1998 Dam Safety Program



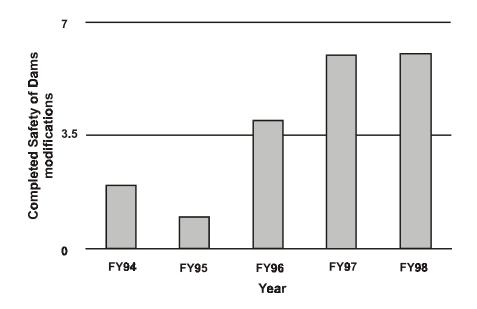
and other dam safety related activities include:

- Examining 92 dams as part of Comprehensive and Periodic Facility Reviews. Annual checklist inspections are ongoing at other facilities (all or partially funded from project or program funding other than the Dam Safety Program).
- Evaluating deficiency concerns at 61 dams.
- Monitoring performance at all dams and reviewing and updating performance monitoring programs at 105 dams.
- Improving performance monitoring capabilities at 27 dams.
- Completing safety of dams structural modifications at six dams, with modifications ongoing at six others.

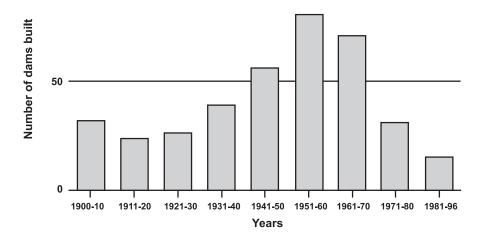
- Performing corrective action studies and final design activities at 27 dams.
- Implementing annual reporting to Reclamation management on dam safety issues and activities at each dam.
- Addressing 23 findings resulting from the 1997 independent peer review of Reclamation's dam safety practices. Work on the remaining 22 findings is ongoing and scheduled for completion in FY 1999. The independent review concluded that Reclamation's dam safety practices are effective.
- Continuing to update and test emergency action plans at all dams that could endanger downstream populations.

Reclamation also provides technical assistance in dam safety for

Approximately half of Reclamations dams and dikes are more than 50 years old, and approximately 90 percent were built before many of the state-of-the-art design and construction practices in use today.



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other agencies on a reimbursable basis. In FY 1998, Reclamation provided approximately \$550,000 in reimbursable construction management and engineering services to the National Park Service on 23 separate actions and approximately \$2.0 million in reimbursable engineering services to the Bureau of Indian Affairs and Native American tribes on 130 separate actions.



Safety of dams modifications underway at Twin Buttes Dam, Texas.

Additional information concerning specific dam safety modifications is included in the Supplemental section of this report.

# FACILITY SECURITY PROGRAM

Reclamation hired an agency security officer to serve as the principal staff member to manage, formulate, coordinate, and oversee Reclamation's security activities. The security officer is working with Reclamation's regional security coordinators to provide program and technical guidance to protect the public, employees, and Reclamation infrastructure.

In its continuing effort to improve and upgrade the security of the Federal facilities and structures it manages, Reclamation expended approximately \$3 million in security assessments, upgrades, and training for its employees during FY 1998. During 1998, Reclamation completed 102 security assessments of its facilities throughout the 17 Western States. These types of security activities and efforts will continue into the 21st century.

Recommended modifications to the drum gates at Grand Coulee Powerplant, Washington, were completed 2 years ahead of schedule in FY 1998.

# and Management and Development

Funds from the sale of lands, oil and mineral royalties, and agricultural leases return about \$400 million annually to the Reclamation Fund.

Reclamation manages approximately 8.6 million acres of Federal land, made up of approximately 2.2 million acres of acquired land and 5.8 million acres of withdrawn land. In addition, Reclamation has easements on another 600,000 acres of land. These lands are used for dams, reservoirs, irrigation facilities, power generation facilities, flood control, recreation, fish and wildlife enhancement, agriculture, and grazing.

# RECREATION MANAGEMENT

These activities promote partnerships intended to enable facilities to be turned over to non-Federal entities for operation and maintenance and to bring facilities into legal compliance with the Americans with Disabilities Act.

In 1998, Reclamation completed the first formal Reclamation-wide Concessions Management Policy and Directives and Standards. To assist in implementing this policy, 30 employees from throughout Reclamation completed comprehensive concession contract training.

More than 19 partnerships have been formed with various groups throughout the West to improve recreational opportunities. For example, Reclamation:

- Dedicated a fully accessible Reclamation-designed fishing dock and restroom, along with other facilities, in a multi-agency fisheries improvement program at Lake Havasu, Arizona.
- Participated in dedicating Catfish Paradise, an improved fishing access facility at Havasu National Wildlife Refuge near Needles, California, constructed under a \$100,000-cost-share agreement between the U.S. Fish and Wildlife Service and Reclamation.



Reclamation employees volunteered to participate in CAST for Kids.

- Completed a visitor center with water conservation, cultural, and natural resource themes at New Melones, California. This center is being operated with public and nonprofit partnerships.
- Continued the \$30-million, 50-50 partnership with the State of Colorado to rehabilitate recreation facilities in western Colorado. The first construction contract covering roads, bridges, and boat ramp improvements was awarded for Vega Reservoir and is nearing completion. New facilities at Crawford Reservoir are receiving increased visitation. Total construction cost at Vega is expected to be \$7.5 million.

Cost shared the conversion of the old Civilian Conservation Corps-built administration building at Elephant Butte Reservoir in New Mexico. This conversion will allow a concessionaire to use the building as a bed and breakfast to serve the public.

Reclamation participated as a sponsor in several CAST (Catch A Special Thrill) for Kids fishing events, which benefit children with disabilities and disadvantaged children by providing a day filled with fishing, boating, and a barbecue lunch.

Approximately 54 children and their families attended the festivities at Prineville State Park, Oregon; Potholes State Park, near Moses Lake, Washington; and Black Canyon Dam, Emmett, Idaho. Volunteers from Reclamation, the Bureau of Land Management, the Bass Anglers Sportsmens Society, and local entities assisted. Plaques, certificates, and fun packs were presented to each child.

In addition, 225 concessions provide commercial services and facilities to the public at Reclamation sites.

# LAND RESOURCES MANAGEMENT

# RESOURCE MANAGEMENT PLANS

Resource management plans provide a comprehensive framework for managing, developing, and protecting water and related resources in a given area, including recreation and fish and wildlife. Resource management plans are in development in several locations—at least 11 plans are underway in Idaho, Oregon, Washington, New Mexico, and Utah.

To address graing and its impact on the endangered southwestern willow flycatcher, an intensive flycatcher survey and monitoring program was

conducted along the Rio Grande above Elephant Butte Reservoir. The results of these studies will assist in preparing the resource management plan for Elephant Butte and Caballo Reservoirs and in Endangered Species Act compliance for river maintenance activities along the Rio Grande.

### **CULTURAL RESOURCES**

Reclamation continues to comply with the National Historic Preservation Act by completing cultural resource inventories on lands under its administration. Numerous archeological sites and historic properties were documented during compliance inventories conducted by Reclamation staff and contractors.

The Durango/Grand Junction Area Office is nearing the end of the archeological data recovery and curatorial work for both the Dolores and the Four Corners Projects in Colorado. While a few technical reports are still being finalized, this year represents the culmination of 20 years of cultural resource work related to the McPhee Dam and Reservoir in Colorado.

Ari ona State University published the final mitigative data recovery reports for the modified Theodore Roosevelt Dam archeology project. The

The Anasazi Heritage Center in Cortez, Colorado, part of the Dolores Project, was transferred to the Bureau of Land Management in 1998.





Almost 90 million people visit Reclamation's 310 designated recreation areas annually. Visitation increases at an average rate of 1.2 million visitors per year.

reports document the 12th through 14th century occupation by prehistoric Salado Indians in the Tonto Basin of central Arizona. These reports conclude more than 10 years of intense investigation at more than 250 archeological properties.

Additional information on stewardship assets is in the Supplemental section.

# ish and Wildlife Management and Development

Reclamation's Commissioner signed two policies into effect in spring 1998—the revised National Environmental Policy Act compliance policy and the Wetland Mitigation Policy.

In FY 1998, Reclamation continued to work with the National Fish and Wildlife Foundation to fund on-the-ground efforts to recover sensitive plant and wildlife species, restore riparian and wetland habitats, improve water quality, control noxious weeds, and conserve endangered fish. The foundation encourages the formation of partnerships between Federal agencies, tribes, local governments, nonprofit organizations, and individual landowners to accomplish this work. Reclamation contributed \$1.4 million during FY 1998 to help fund more than 35 projects. Reclamation's funds were matched by non-Federal Challenge funds and contributions from other Federal agencies. All funds contributed by Reclamation went directly to projects that benefited fish, wildlife, plants, or their habitats; no funds were used for the foundation's general or administrative expenses.

# FISH Enhancements

# TRACY FISH FACILITY IMPROVEMENTS

Environmental work in California during the year included the Tracy Fish Facility Improvement Program, fish screening of the Contra Costa Canal System, restoring 17 miles of Battle Creek above the Coleman Fish Hatchery, and placing 27,000 tons of spawning-sized gravel in the Sacramento River.

The Tracy Pumping Plant Mitigation Program is continuing to develop a modern onsite fishery evaluation and testing facility.

# AUGMENTATION WATER FOR SALMON

Reclamation delivered about 427,000 acre-feet of storage water from Payette, Boise, and the Upper Snake Rivers in



Tracy Pumping Plant and Fish Facility.

Idaho and from permanently acquired natural flow rights in Oregon to augment streamflow for migrating salmon. Included are approximately 61,000 acre-feet to be released in fall 1998 from the Payette River to backfill Brownlee Reservoir on the Idaho-Oregon border. To help meet target flows at McNary Dam on the Columbia River, water was released from both Hungry Horse Reservoir in Montana and Franklin Delano Roosevelt Reservoir in Washington.

## UPPER COLORADO RIVER RECOVERY IMPLEMENTA-TION PROGRAM

Reclamation is a critical cooperator in the Upper Colorado

River Recovery Implementation Program, which is in its ninth year of implementation. The intent of the program is to recover the four listed Colorado River endangered fish species while the Basin States continue to develop their Colorado River Compact entitlements. Reclamation is evaluating, testing, and modifying operations of large dams on the Green, Gunnison, San Juan, and Colorado Rivers to address suitable native fish habitat conditions while providing for a multitude of other traditional uses.

The Redlands fish ladder is located on the Gunnison River near its confluence with the Colorado River at Grand Junction, Colorado. The ladder provides a gateway for native fish and the endangered Colorado



Fish screens and ladders such as these help preserve native fish.

squawfish and razorback suckers to once again reach 50 miles of upstream spawning and feeding habitat that have been out of their reach for nearly a century. Since its opening in 1996, approximately 19,313 native fish and 32 Colorado squawfish have used the ladder. The ladder is the first of its kind to be built in the Colorado River Basin.

# WATERSHED Approaches to Decisionmaking

# BAY-DELTA PROTECTION PLAN

The State of California and Federal Government (CALFED) Bay-Delta Program is developing a strategy that would deliver water for agricultural and urban needs while also providing adequate supplies for the environment, including the needs of fish and wildlife and endangered species. The Bay-Delta Advisory Council provides an equal role for representatives of the environmental community, water users, and the business community.

## SNAKE RIVER RESOURCES REVIEW

Reclamation is working on the Snake River Resources Review in partnership with local, State, and Federal agencies; Indian Nations; other groups; and individuals to develop a computerized Snake River Decision Support System. The system will allow Reclamation and the States to work within State water law to meet contractual obligations while managing the system for multiple benefits and uses when possible.

Another of Reclamation's new automated display tools will create a better way to illustrate the snowpack, reservoir levels, flows, and diversions for the upper Snake River and its reservoir system. This display will improve the public's understanding of the role that reservoirs play during normal operations and floods.

### LOWER COLORADO RIVER

Efforts continued on the Lower Colorado River Multi-Species Conservation Program. Several Federal and non-Federal entities entered into an agreement in 1997 to cooperate in seeking solutions that will help accommodate water, power, and environmental needs on the Lower Colorado River. A 35-member steering committee serves as the decisionmaking body for the program. Intended for implementation over a 50-year period, the program will address approximately 100 species and their habitats, including aquatic, wetland, riparian, and upland environments. The plan is scheduled to be completed by FY 2000.

# CENTRAL VALLEY PROJECT

Watershed management studies have been underway in California's Central Valley for many years. A draft programmatic environmental impact statement on the Central Valley Project Improvement Act was released for public

comment in December 1997, and public comments are being evaluated. In addition,

- Final administrative proposals were released on five major issues—water transfers, contracting policies, refuge water supplies, the Anadromous Fish Restoration Fund, and the 800,000 acre-feet of water to implement fish, wildlife, and habitat restoration. These proposals describe how Interior is implementing the Central Valley Project Improvement Act.
- The land retirement program, in which Reclamation would purchase less productive lands with high groundwater tables, received 31 applications covering approximately 27,000 acres. The area selected for retirement in this first round totals 12,563 acres.

Development of an historic rule to implement off-stream storage and interstate transfers of Colorado River water among Lower Basin States continued in FY 1998. The rule is expected to become effective in early 1999.

## OREGON WATERSHED REINVENTION LABORATORY

The Oregon Watershed Memorandum of Understanding is a commitment from the State of Oregon and 10 Federal agencies (including Reclamation) to work as one government with communities to restore and protect ecosystems (water, fish, air, communities, forests, etc.) throughout Oregon.

Sixty-eight interim renewal contracts for Central Valley Project water supplies were negotiated during the past year and executed by February 1998.



Pathfinder Reservoir on the North Platte River in Wyoming is a Reclamation facility that affects endangered species downstream in Nebraska.

Wetland development areas range in size from 5 to 5,000 acres.

### THE GLEN CANYON DAM ADAPTIVE MANAGEMENT PROGRAM

The Grand Canyon Protection Act directed the Secretary of the Interior to establish longterm monitoring and research programs on the natural, recreational, and cultural resources of Grand Canvon National Park and Glen Canyon National Recreation Area. This Adaptive Management Program incorporates the results of monitoring and research into dam operations. The objective of adaptive management is to use scientific data, produced through research and monitoring, to continually refine and improve dam operations. The program calls for the continued interaction of stakeholders, managers, and scientists to monitor the effects of current dam operations on the Colorado River ecosystem and conduct research on alternative dam operating criteria to ensure future protection of resources and improve natural processes.

### PLATTE RIVER

Interior and the States of Nebraska, Wyoming, and Colorado signed a cooperative agreement in 1997 to improve Platte River habitat for four threatened and endangered species whooping crane, interior least tern, piping plover, and pallid sturgeon. Interior is preparing a programmatic environmental impact statement on the program proposed in the cooperative agreement.

The public scoping phase was completed in FY 1998. Scoping included 11 public meetings in the 3 States. In addition, a series of "public forums" on the progress of the study effort is being held to update interested parties.

# WETLAND DEVELOPMENT PROGRAM

The wetland development program and Wetland Development Fund provide an opportunity for Reclamation personnel to design and construct projects to enhance, create, and restore wetlands. Projects are underway or completed at more than 44 locations on more than 7,000 acres of wetlands. For example:

- Reclamation and the State of Nebraska began a 3-year cooperative study to determine human impacts on the Nebraska Rainwater Basin Wetland.
- Reclamation completed the development of 92 acres of wetlands located downstream from Jordanelle
   Dam in Utah. After development of the area began, it was identified as important habitat for the western spotted frog, a

candidate species for listing as endangered. In concert with the Goshute Indian Tribe and other Federal and State agencies, Reclamation developed a conservation plan that removed threats to spotted frog populations in parts of Utah, making Federal protection of the species unnecessary.

In April 1998, Secretary of the Interior Bruce Babbitt attended the signing ceremony of the wide-ranging conservation agreement and applauded the cooperative efforts which precluded the need for the frog to be added to the Federal endangered species list. The Jordanelle wetlands also contain a small population of Ute ladies'tresses, an endangered orchid. Additionally, the area has been identified as one of the most important habitats for neotropical birds in Utah and has been recognized by several conservation organizations as an excellent example of wildlife habitat protection and creation.

Reclamation also participated with public and private organizations in the Upper Arkansas River Restoration Program to restore habitat degraded by historical mining activities in the Leadville area.

Water deliveries to refuges in California continued to increase during the year. An interagency-coordinated process for water management planning of wetland habitat in the Central Valley was completed. The process will provide a common methodology for water use planning for all the wetland areas receiving water supplies authorized by the Central Valley Project Improvement Act.

Numerous schools and universities coordinate with Reclamation to use the Jordanelle wetlands as a hands-on lab for environmental education.



The North American Waterfowl Management Plan identifies Nebraska Rainwater Basin Wetland as a "major concern."

# Jolicy and Administration

# COMMON SENSE Business Practices

# OPERATION AND MAINTENANCE COSTS

In response to a congressional request, Reclamation prepared a study of its operation and maintenance (O&M) costs over the period of FYs 1993 through 1997.

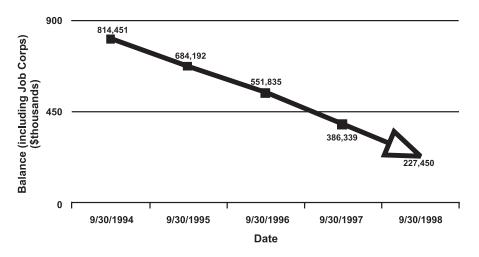
The study identified 90 Reclamation projects that had incurred O&M costs during at least 1 of the 5 fiscal years considered.

Reclamation has established a process for controlling overall O&M costs in recent years and continues its efforts to deliver O&M services to its customers in a manner as efficient and economical as possible.

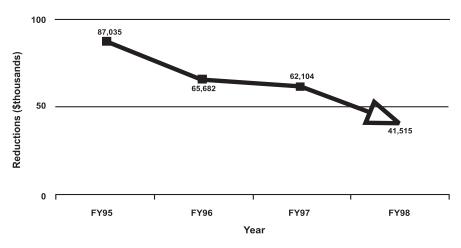
### IMPROVED BUSINESS PRACTICES

In FY 1998, Reclamation began new practices that saved taxpayer dollars and improved service to customers, vendors, and employees. Some of these accomplishments include:

- Continuing to reduce cash held outside of the Department of the Treasury (72 percent since 1994) by using alternate payment processes and expanding the Government's travel card advance feature.
- Reducing late-payment interest penalties from \$62,104 in FY 1997 to about \$41,515 in FY 1998, and by 48 percent since 1995.
- Beginning remote data entry of travel vouchers to effectively and efficiently comply with the Debt Improvement Act of 1996. When fully implemented in



Reduction of cash held outside the Treasury.



Reductions in late-payment interest penalties.

FY 1999, fewer staff days will be required to process travel vouchers.

# ACCOUNTING SYSTEM IMPROVEMENTS

During FY 1998, Reclamation became the first Interior bureau to install and test a new comprehensive core version of the Federal Financial System to avoid computer problems associated with the Year 2000. In conjunction with this conversion, changes were made

to more than 200 programs and numerous interfaces in the system.

As a result of new accounting standards in the Government, Reclamation adopted the Treasury's new general ledger in FY 1998. In addition, the programmatic budget structure was changed to more accurately reflect Reclamation's water resources management mission. Under this new structure, which is more responsive to accounting and reporting

requirements of the Government Performance and Results Act of 1993, all funding will be allocated to six major program activities:

- Water and energy management and development
- Facility operations
- Facility maintenance and rehabilitation
- Land management and development
- Fish and wildlife management and development
- Policy and administration

### WORKING CAPITAL FUND

Reclamation continued its comprehensive review of all Reclamation-wide Working Capital Fund activities. On the basis of this review, it was proposed to return \$25.8 million of the unobligated balances available in the Working Capital Fund to the Treasury. The money will be used to offset reductions in Reclamation's Water and Related Resources account in FY 1999.

Also, a decision was made to transfer the Denver Administrative Service Center, which provides consolidated administrative services to Interior and other Federal agencies, to Interior's Office of the Secretary during FY 1999. The center generated about 14 percent of total Working Capital Fund revenue in FY 1998.

### COMMON SENSE SOLUTION

In an experiment, the Yuma Area Office provided sand, dredged from the Colorado River near Yuma, to the city of San Diego to use on two Pacific Ocean beaches that had lost all their sand in last winter's fierce El Niño storms. The sand was transported to San Diego by two Arizonabased firms that haul trash from San Diego to landfills in Arizona, then return to the coastal city in otherwise empty trucks. If the experiment is a success, it will help resolve problems associated with finding local spoil sites for nearly 10 million cubic yards of sand scheduled to be dredged from the river near Yuma.

# YEAR 2000 COMPLIANCE ACTIVITIES

In response to the need to ensure all computers and information systems are ready for the Year 2000, the Department of the Interior has implemented an Interior-wide initiative to analyze and correct potential Year 2000 conflicts. A discussion of Interior's state of readiness, the costs of addressing Year 2000 issues, the risks to Interior by Year 2000

issues, and Interior's contingency plan is presented in management's discussion and analysis included in Interior's *Fiscal Year 1998 Accountability Report*.

# AUTOMATED PERSONNEL PAYROLL SYSTEM

Reclamation's Denver Administrative Service Center continued implementing a new personnel and payroll system for Interior. The new system integrates personnel records and payroll while providing employees with interactive, online accessibility. When fully implemented in December 1998, the system will service 13 Interior bureaus and agencies and 13 non-Interior agencies, representing more than 180,000 employee accounts.

## TECHNICAL SERVICE CENTER'S BUSINESS OPERATIONS

Reclamation's Technical
Service Center was created on
October 1, 1994, through a
significant downsizing and
restructuring of several organi ational units. With virtually
no direct appropriation and
with the intent of operating in
the image of a business, the
Technical Service Center began
operations using a \$10-million
"loan" from Reclamation. The
Technical Service Center set
about the process of becoming

the "preferred provider of engineering and scientific services" for its customers—primarily regional and area offices. Billing rates for those services were established, as well as a single working capital activity to manage its \$70-million-a-year operation.

The Technical Service Center has posted 4 consecutive years of successful operation; and a few months ago, it repaid the \$10-million loan to Reclamation, believing it can operate successfully without benefit of this "safety net." In FY 1999 (for the first time), the Technical Service Center will not raise its billing rates to customers.

# FINANCIAL MANAGEMENT

Negotiations have been completed for direct-funding agreements with four water conveyance authorities to operate and maintain conveyance systems within the Central Valley Project, reducing the need for Federal appropriations by about \$12.7 million each year. Under the agreements, contractors now directly fund the operation and maintenance activities, resulting in both reduced administrative costs and increased local control over the operation and maintenance and funding processes.

Operation and maintenance responsibilities were transferred for all or part of five projects in FY 1998, up from three in FY 1997.

Transfer of title is underway or completed on various facilities.

- An agreement was reached to convey the distribution system of Clear Creek Unit of the Central Valley Project to the Clear Creek Community Services District. Congressional approval is required before conveyance can occur.
- Legislation was signed to transfer title to the Burley Project facilities of the Minidoka Project to the Burley Irrigation District in Idaho.
- Legislation was signed by the President to authorize the Canadian River Authority to prepay their obligation and receive title to the Canadian River Pipeline in Texas.
- Terms and conditions for transfer of the Pine River Project in Colorado have been developed and await congressional consideration.
- A memorandum of agreement was signed with the
  Wellton Mohawk Irrigation
  and Drainage District to
  complete the terms and
  conditions for the transfer
  of a portion of the lands
  and facilities of the Gila
  Project in Arizona.
- A memorandum of agreement was signed with the Fremont-Madison Irrigation District to evaluate and

- develop terms and conditions for the transfer of the Island Park and Grassy Lake Dams and other facilities located in Idaho and Wyoming.
- Serious discussions are close to being completed on the terms and conditions of the transfer of the Middle Loup Unit of the Pick-Sloan Missouri Basin Program to the Sargent and Farwell Districts in Nebraska.
- Serious discussion and an environmental assessment are close to being completed for the transfer of the Palmetto Bend Project to the Lavaca-Navidad River Authority in Texas.

# IMPROVE Customer Service

Reclamation completed its first agency-wide customer satisfaction survey. The survey determined the kind and quality of service Reclamation provides and gauged the level of customer satisfaction for use as baseline information. Customers told us they are generally satisfied with the service they receive, the reliability and availability of power, recreational opportunities, water quality efforts, and natural resources management.

Improving communication and incorporating customer input into our actions and programs are two key areas in which we need improvement.

# DIVERSE, SKILLED WORKFORGE EXCELLENCE

### **WORKFORCE INITIATIVES**

In February 1998, Reclamation issued its Diversity Workforce Implementation Plan in response to Interior's Diversity Strategic Plan. Reclamation's plan provides a "road map" for attaining a workforce reflective of the Nation, where the quality of worklife is valued, differences are accepted, and all employees are encouraged to maximi e their potential and provide quality service to customers. Significant progress is being made toward achieving the plan's goals.

After assessing the effect of recent turnover and the retirement eligibility of its current workforce, Reclamation launched three bureauwide development programs to prepare employees for leadership and executive positions. Fifty-six employees were selected for long-term training and development.

About 63 percent of managers and supervisors completed workplace violence and sexual harassment training. Training for Cultural Diversity, Violence in the Workplace, and Drugfree Workplace was provided to many supervisors and employees.

More than 600 colleges and universities across the United States were included in the advertisement/recruitment process for new employees. From this extensive outreach effort, 12 students—11 of whom are from underrepresented groups—were selected and are working in one regional office and area offices throughout that region. The students have been exposed to Reclamation's program through an extensive orientation process and are continuing to learn about Federal service through work advisors.

The number of females and minorities increased in six targeted job series throughout Reclamation.



Interior officials (left to right) David Montoya, Deputy Assistant Secretary - Diversity; Melodee Stith, Director, Equal Opportunity; Carolyn Cohen, Director, Office of Personnel; and Mari Barr, Deputy Assistant Secretary - Human Resources, guided Reclamation this last year toward achieving its goal of developing a workforce reflecting the many cultural backgrounds represented throughout the country.

### JOB CORPS

Reclamation operates five Job Corps Civilian Conservation Centers—Centennial in Idaho, Collbran in Colorado, Columbia Basin and Fort Simcoe in Washington, and Weber Basin in Utah. Residential vocational and academic skills training is individualized and self-paced, and new social skills training is being integrated into all aspects of the center activities.

At the Job Corps National Leadership Conference, Weber Basin received the national award for Outstanding Student Retention and the National Director Award for 5 years of sustained superior performance. Collbran received the national award for Exceptional Community Connections. Centennial, Collbran, Fort Simcoe, and Weber Basin were recognized for exceeding the student safety survey standard. In addition, Weber Basin Job Corps was selected as the "Number 2" center in the country.