



Management Discussion and Analysis



The Management Discussion and Analysis section of the Bureau of Reclamation's Annual Report summarizes how Reclamation fulfilled its mission in fiscal year 2002. This section contains a narrative discussion of Reclamation activities and highlights of performance. More detail on Reclamation projects and activities may be found at [< www.usbr.gov > .](http://www.usbr.gov)

The Government Performance and Results Act (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 of the Annual Report. To meet this requirement, Reclamation has highlighted certain FY 2002 GPRA performance goals and included at least one goal for each GPRA program activity. The GPRA program activities are associated with Reclamation's budget categories.

All FY 2002 GPRA performance goals will be reported in the combined *FY 2004 Annual Performance Plan and FY 2002 Annual Performance Report* to meet GPRA reporting requirements.

The Bureau of Reclamation manages, develops, and protects water and related resources in an environmentally and economically sound manner in the interest of the American public. Since the establishment of the Bureau of Reclamation in 1902, its projects have contributed to the social fabric of the West and the well being of its people. Reclamation has developed major water projects and will continue to be involved in managing a limited water supply to provide power, irrigation, municipal and industrial, flood control, recreation, and tribal benefits. 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.

Facility Operations

Reclamation manages 348 reservoirs with a total storage capacity of 245 million acre-feet of water. An acre-foot of water 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.

GPRA Goals for the Facility Operations Program Activity

Performance Goal No. 1 In FY 2002, deliver or release the amount of water contracted for from Reclamation-owned and operated facilities expected to be no less than approximately 27 million acre-feet.

Indicator Acre-feet of water delivered.

<u>Annual Target</u>	<u>Annual Results</u>	<u>Goal Status</u>
27,000,000	29,418,471	Exceeds target

Data Source Water records and local data bases.

Goal Notes Reclamation exceeded target by delivering 2 million acre-feet more water to help meet increased needs caused by drought. In the northern part of the West, continuing drought caused higher demands for water releases. In some cases, where water was available, the demand was met, depleting reserves to all-time lows in many reservoirs. In other cases, where reservoir levels were already low, all available water was delivered, but was still insufficient to meet demand. If snowpack runoff is at or below normal, and if the drought continues, there will be far less water to release to customers during FY 2003. Since snowpack data is usually not available until late March, and the runoff profile is not established until May or June, it is impossible to give a quantitative impact on projected water deliveries at this time. However, FY 2003 targets may be slightly lower than FY 2002.

Performance Goal No. 2 In FY 2002, deliver power needed to meet Reclamation's contractual commitments 100 percent of the time.

Indicator Number of megawatt hours generated/number of megawatt hours contracted.

<u>Annual Target</u>	<u>Annual Results</u>	<u>Goal Status</u>
100 percent	100 percent	On target

Data Source Power records

Goal Notes As of FY 2003, this goal is discontinued.

Performance Goal No. 3 In FY 2002, attain power production costs less than \$7,300 per megawatt capacity in order of rank in the 75th percentile for cost efficiency for comparable hydropower facilities.

Indicator Power production costs (\$/megawatt capacity.)

<u>Annual Target</u>	<u>Annual Results</u>	<u>Goal Status</u>
\$7,300	\$6,895	Exceeds target

Goal Notes Reclamation's draft cost of power production for FY 2002 is \$6,895. Based on current data, Reclamation estimates that we rank within the upper quartile of lowest-cost hydropower facilities.

Flood Operations, Texas

While severe drought continued in much of the West, two severe summer floods hit the south Texas Nueces River drainage basin in July and September 2002. The result was an unparalleled level of cooperation, communication, and unified effort among the Oklahoma-Texas Area Office; other Reclamation offices; the city of Corpus Christi; emergency management organizations for the city; Live Oak, Nueces, and San Patricio Counties; National Weather Service and River Forecast Center; the city of Three Rivers; county sheriff departments; and the Texas Department of Transportation. Multiple daily conferences resulted in timely and accurate dissemination of information. Subsequent briefings to local news media provided accurate and current information and helped minimize distress.



Flooding near Three Rivers, Texas,
downstream of Choke Canyon Dam,
September 11, 2002.
Photo by Forrest Powell



Security, Safety, and Law Enforcement

During FY 2002, Reclamation took extraordinary measures to immediately secure its key facilities, including those that are National Critical Infrastructure Systems. Reclamation expanded its existing security program to address new threats of terrorism and establish law enforcement authorities. Some of the key accomplishments include:

- Provided guard or surveillance services at critical Reclamation facilities through private contracts or agreements with other Department of the Interior (Interior) agencies, tribes, and water districts.
- Issued interim rules regarding public conduct and established authority for Reclamation to enter into agreements for law enforcement services with Interior agencies, tribes, States, and local agencies.
- Awarded four contracts and two interagency agreements necessary to perform 55 physical security risk analyses of key facilities. In response to findings and recommendations, Reclamation facilities developed and implemented quick-response plans to provide immediate security improvements.

Choke Canyon Dam
flooded area included picnic
shelters in the State park.
Photo by Forrest Powell

- After implementing recommendations resulting from Tourism and Visitor Center Risk Assessments, Reclamation re-opened visitor centers and re-initiated tours at Reclamation facilities.
- Strengthened information security by issuing interim guidance and policies, directives, and standards necessary to protect and safeguard information and records.
- Revised existing response measures to be consistent with the five levels of Office of Homeland Security Advisory system. Implemented measures when Office of Homeland Security raised alert level to Orange Alert.
- Under the law enforcement legislation passed in FY 2002, prepared a new law enforcement agreement between Lower Colorado Region and the Bureau of Land Management for security assistance on the lower Colorado River.
- Increased security measures at Flaming Gorge Dam, Utah, and at Glen Canyon, Davis, and Parker Dams, Arizona.
- Installed boat-resistant log booms at critical dams to prevent access to the dam or spillway by boat.

Hoover Dam

As part of the heightened security activities following the events of September 11, 2001, Hoover Dam was immediately closed to traffic for 2 days, and the dam was closed to visitors. The dam was re-opened to passenger traffic the following week, but modified tours did not resume until mid-December 2001. Commercial traffic is still prohibited from crossing the dam. Additional security measures, including the establishment of vehicle checkpoints on the Nevada and Arizona highway approaches to the dam, were also implemented. Agreements for security support were signed with the National Park Service; Boulder City; Las Vegas Metropolitan Police Department; Nevada and Arizona Departments of Transportation; and Mohave County, Arizona, Police Department.



Highway 93, which crosses the top of Hoover Dam, has been closed to commercial traffic since September 11, 2001, as a security precaution.

Kevin Reynolds, a Reclamation employee from the Upper Colorado Region, carries the torch for the Paralympic Games.

Winter Olympics

Reclamation's contribution to the XIX Winter Olympic and Paralympic Games security was the culmination of years of planning by regional and area office staff, working closely with the Utah Olympic Public Safety Command. This work ensured that the water infrastructure within the Olympic Theater was monitored and secured during this highly publicized event.



Facility Maintenance and Rehabilitation

As well as ensuring effective operations, Reclamation must protect its facilities from deterioration due to age and natural disturbances. Proper maintenance is key to ensuring reliable and safe delivery of water and power to Reclamation's customers. For example, in FY 2002, Reclamation continued rehabilitation of Boise Diversion Powerplant, Idaho; began work to repair the radial gates of American Falls Dam, Idaho; and completed the first year of Arrowrock Dam outlet works rehabilitation project, Idaho.

GPRA Goal for the Facility Maintenance and Rehabilitation Program Activity

Annual Goal/Performance Measure In FY 2002, attain a 3-percent or lower forced outage rate for Reclamation's conventional hydropower units.

Indicator Number of hours out of service due to forced outage/number of hours in a year (weighted according to megawatt capacity per unit).

Annual Target	Annual Results	Goal Status
3 percent	1.3 percent	Exceeds target

Goal Notes Reclamation achieved a 1.3-percent forced outage rate for FY 2002.

Data Source Power Operations and Maintenance 59 Reports

forced outage rate is 3 percent of the total operating hours within a year. In FY 2002, Reclamation exceeded this target by attaining a 1.3-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

GPRA Goal for Safety of Dams Modification Program

Annual Goal/Performance Measure In FY 2002, reduce risk to downstream public and resources by completing Safety of Dams modifications or determining no need for modification.

Indicator Number completed. Safety of Dams modifications or determinations of none needed.

Annual Target	Annual Results	Goal Status
4	4	On target

Goal Notes Two modifications originally targeted for completion in FY 2001, Caballo and Avalon, were completed in the second quarter. Work on Clear Lake and Red Willow was completed in the last quarter.

Data Source Safety of Dams memorandums; construction documents

Forced Outage

A forced outage rate measures the percent of time powerplants suffer unplanned shutdowns due to equipment failure and other operational or maintenance problems. The industry average

under the Safety of Dams Program. In FY 2002, Reclamation accomplished the following:

- Completed 41 comprehensive facility reviews.
- Completed Safety of Dams risk reduction actions at Avalon Dam, Carlsbad Project,

New Mexico, to address erosion protection at the spillways and reduce risk of failure during large floods.

- Completed Safety of Dams risk reduction actions at Caballo Dam, Rio Grande Project, New Mexico, by strengthening gate arms to reduce risk of gate failure due to static loads and seismic events.
- Completed Safety of Dams risk reduction actions at Clear Lake Dam, Klamath Project, Oregon-California, to address risks associated with failure from seepage through the embankment.
- Completed Safety of Dams risk reduction actions at Red Willow Dam, Red Willow Unit, Nebraska, by modifying the downstream drainage system to reduce seepage risks.
- Began Safety of Dams modifications on the following dams:
 - › Keechelus Dam, Yakima Project, Washington
 - › Pineview Dam, Ogden River Project, Utah
 - › Salmon Lake Dam (Outlet Works), Okanogan Project, Washington
- Continued preconstruction activities for the Safety of Dams modifications on Deadwood Dam, Boise Project, Idaho; Grassy Lake Dam, Minidoka Project, Wyoming; Stony Gorge Dam, Orland Project, California; and Deer Creek Dam, Provo River Project, Utah.
- Changed the scope of modifications underway at Horsetooth Dam, Colorado. In place of the previously approved cutoff wall, Reclamation is constructing an upstream seepage blanket to better address seepage through the embankment at a lower cost.
- Invoked a reservoir restriction on Glen Anne Dam, Cachuma Project, California, rather than attempting to modify the dam.
- Continued modifications at Wickiup Dam, Deschutes Project, Oregon.

Water and Energy Management and Development

Reclamation's primary mission is to provide water and power to the people of the Western United States. 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.

Water Availability and Quality

Reclamation strives to increase water availability through innovative projects with water users throughout the West. Water availability may be

increased through reuse and recycling projects, conservation, and water quality improvement.

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

Colorado River Basin Salinity Control 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 in the United States. The river also serves about 2.3 million people and 500,000 acres in Mexico. The threat of salinity is a major concern in both the United States and Mexico, with damages in the United States presently totaling about \$330 million per year.

The Basinwide Salinity Control Program completed four projects in FY 2002: North Carbon, Seeley-Collard, Duchesne County, and Lower Brush Creek in Utah. Reclamation has obligated more than \$107 million since the program's inception in 1995 and has successfully stayed within budget. The total Reclamation program (including those projects constructed before 1995) is estimated to prevent about 605,000 tons of salt per year from entering the Colorado River.

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

Annual Goal/Performance Measure In FY 2002, improve water quality in the Colorado River Basin States by adding new projects to control an additional 25,000 tons of salt at a cost not to exceed \$50 per ton, on average.

Indicator New tons of salt removed at a cost not to exceed \$50 per ton.

<u>Annual Target</u>	<u>Annual Results</u>	<u>Goal Status</u>
25,000	36,500	Exceeds target

Goal Notes Projects have been awarded that are estimated to remove an additional 36,500 tons of salinity at \$33 per ton.

Data Source Cooperative agreements.

Water Quality

In FY 2001, Reclamation began to compile a comprehensive database of water quality data. This information will provide insight into the success of Reclamation's water quality activities.

In FY 2002, Reclamation conducted or participated in the following water quality activities:

- Conducted a multi-agency study of physical, chemical, and biological aspects of the fresh water at Lake Mead.
- Sampled all reservoirs and conveyance systems in the Mid-Pacific Region on a quarterly basis.
- Monitored salinity at Las Vegas Wash, near Las Vegas, Nevada, and the Palo Verde Irrigation District main drain near Blythe, California.
- Monitored water quality at the U.S.-Mexico Northernly and Southernly International Boundary.
- Conducted a 3-year multi-agency study of the quality of surface water entering Fort Cobb Reservoir in central Oklahoma.
- Assisted State and tribal water temperature management efforts in the Umatilla River basin.
- Estimated irrigation return flows to the Snake River-Hells Canyon water quality management planning area in Idaho and Oregon.
- Conducted laboratory analyses to assist with water quality management planning in Snake River Basin tributary watersheds.

Sampling sites for Mid-Pacific Regional Water Quality Monitoring Program. Top photo, Negro Bar at Lake Natomas; second photo, Friant-Kern Canal; third photo, Klamath Straits Drain; bottom photo, Sacramento River below Keswick Dam.





AgriMet station located at Chief Joseph Dam, Washington, to support dissolved gas and water temperature modeling efforts.

- Providing financial assistance to the city of McCall, Idaho, to reduce phosphorus inflows to Cascade Reservoir, Boise Project, Idaho.
- Assessing total dissolved gas conditions at Hungry Horse Dam in Montana.
- Installing 11 new AgriMet weather stations in Oregon, Washington, and Idaho to provide data for water quality modeling on the Snake, Willamette, and Columbia Rivers.

Water Availability

Reclamation secured water resources for its contractors by filing objections to 600 water rights applications in the Payette River Basin, Idaho, portion of the Snake River Basin Adjudication. These objections involved a general provision allowing the separate administration of certain tributaries from the mainstem, which could potentially injure Reclamation's water rights. Reclamation negotiated a settlement offer with the Idaho Department of Water Resources, which both agencies jointly presented to water rights holders through mailings and at public meetings. More than 300 water users have signed the settlement offer so far.

Reclamation also is negotiating with groundwater users, surface water users, and Idaho officials to resolve conjunctive water use management issues in the Snake River Basin. At issue is the effect of junior groundwater users on senior surface water users.

Water Conservation

Reclamation also strives to manage its water supplies through water conservation activities. In FY 2002, Reclamation's Water Conservation Field Services Program provided technical or financial assistance primarily to irrigation districts and canal companies involved in Reclamation projects.

Reclamation's Drought Program

Reclamation's Drought Program assists States, tribes, and local entities throughout the 17 Western States and Hawaii by addressing emergency drought impacts, including water shortages. 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. Extreme drought conditions were

experienced during FY 2002, and requests for emergency assistance exceeded \$13 million. In FY 2002, Reclamation funded the following activities:

- Emergency assistance to New Mexico through the acquisition of water for mitigating fish and wildlife impacts associated with drought conditions on the Rio Grande River System.
- Emergency assistance for constructing wells for the cities of Geraldine, Roy, Circle, and Melstone, Montana.
- Emergency assistance to the Northern Arapahoe Tribe, Wyoming, for well drilling.
- Emergency drought assistance to the Navajo Nation, Utah, for well drilling.
- Emergency drought assistance to several tribes in Arizona, including the Hopi Tribe, for well drilling, and the Hualapai Nation for well drilling and constructing a temporary pipeline connection.
- Emergency drought assistance to the Pueblo of Jemez, New Mexico, for well drilling.
- Emergency assistance to the San Carlos Apache Tribe to facilitate the exchange of water from the Central Arizona Project for water in the San Carlos Reservoir.
- Funding to the State of Hawaii for drought contingency planning to complete Phase II of their State Drought Contingency Plan.
- Two million dollars for a Precipitation Management Technology Transfer Program to alleviate problems caused by precipitation variability and droughts in the West.

Construction Projects

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

On October 30, 2001, the Commissioner approved the November 9, 2001, Initiation of Construction date for the Animas-La Plata Project in Colorado. This approval, coupled with the passage of the Colorado Ute Settlement Act Amendments of 2000 and initial construction funding in FY 2002, allowed the project to move forward. The project's cultural resources mitigation contract was awarded to the Ute Mountain Ute Tribe through an Indian Self-Determination Cooperative Agreement; significant progress has been made. Utility relocation designs were completed with construction scheduled for spring 2003. A 3-month construction contract was completed for the first phase of the inlet conduit. Specifications design for Ridges Basin Dam and Durango Pumping Plant neared completion. Project environmental mitigation lands were acquired, and development plans are being finalized for implementation in summer 2003. Upfront cost sharing agreements are in place, and partners are contributing funding concurrently with development. Reclamation amassed a unique development team, including staff from several different offices, to ensure efficient, successful project development.

Central Utah Water Conservancy District Prepayment

In FY 2002, the Central Utah Water Conservancy District located in Orem, Utah, signed a contract with Interior that will allow the district to pre-pay \$20.1 million. The monies will be applied to repay the cost of developing municipal, rural, and industrial water systems for the Central Utah Project. The pre-payment will allow the district to reduce the principal loan amount by approximately \$26 million and avoid approximately \$22.5 million in interest charges over the existing life of the contract.

Native American Affairs

Reclamation's Native American Program is a collaborative, integrated program designed to increase opportunities for tribes. Once formulated, Native American Program activities are carried out largely at the regional and area office levels. Some of these activities are discussed below, while others are discussed in other sections of this report. More information can also be found at < <http://www.usbr.gov/native>> .

Education. As part of its ongoing Indian Education Program, Reclamation provided support, including \$1.2 million, for:

- Scholarships for Indian undergraduate students, in partnership with the American Indian Science and Engineering Society.
- Southwest Indian Polytechnic Institute's program to provide instruction in technical disciplines for Indian students.
- Central Washington University's program for Indian graduate students seeking masters degrees in natural resources.
- Arizona State University's Indian Law Student Program.

Reclamation helps tribes improve natural resource management by gathering data, including river bed samples such as this one, which determine the size of river sediment.



- Continued development of a new program to assist Indian high school students.

Technical Assistance. The Native American Affairs Program continued its Technical Assistance to Tribes Program to further



Tribal water management workshops share technology in Denver, Colorado.



Geomorphological studies provide tribes with alternatives for protecting roads on the Avinalt River, Washington.

the goal of making the benefits of the Reclamation program available to Indian tribes. In FY 2002, the Native American Affairs Office (NAAO) provided \$ 3.4 million to support technical assistance activities for 62 tribes, representing a wide range of new and continuing technical support. These assistance activities include both those that are an “end in themselves,” as well as those that lay the groundwork for future on-reservation water development activities.



Water Rights Settlements. The Native American Affairs Program provided leadership, staff support, technical assistance, and other support for Secretary Norton's Indian water rights program, including support for 4 assessments, 18 negotiations, and 14 implementation teams. Approximately \$1.5 million was expended in FY 2002 to further water rights settlements.

Native American students study a permanent network of 60 cross sections to help monitor channel changes over time.

Science and Technology

The Science and Technology Program conducts coordinated, interdisciplinary research and development to advance mission-specific capability, increase water management flexibility and reliability, and reduce costs. The program focuses on four main areas of research: infrastructure reliability, water delivery reliability, water operations decision support, and water supply technologies.

In FY 2002, the program implemented new business practices to help build a better scientific and technical foundation to support Reclamation's mission by enhancing customer focus, defining key output areas, establishing a broad call for proposals, strengthening partnerships, and encouraging more cross-discipline collaboration. These practices also included an annual broad competitive call for proposals aligned with a new Science and Technology roadmap. This roadmap helps guide research planning and execution by showing how the research results strategically link to Reclamation's mission objectives.

A few of the Science and Technology Program activities in FY 2002 included:

Stretching existing water supplies through developing water measurement and water efficiency technologies.

Developing new water supplies by leading desalination research. The program developed a desalination research roadmap in collaboration with private sector, nongovernmental entities, municipalities, and other Federal laboratories that will help guide, prioritize, and coordinate desalination research by Reclamation and others. *The Water Treatment Primer for Communities in Need* helps small and Native American communities use water treatment technologies developed to treat impaired or inadequate supplies.

Enhancing operations to continue contract water deliveries and reduce impacts to fish by researching effective fish-passage devices. Research led to channels for native fish, sturgeon passes on diversion dams, natural channel fishways for cui-ui suckers and Lahonton cutthroat trout, salmon passage, and silvery minnow passage. Advances in fish screens help keep fish from being trapped in canals and diversion structures.

Improving reservoir and river system operations by continuing to improve the water and reservoir decision-support modeling. These decision systems are now “standard operation” modeling tools on many Western river systems, and more data is being added to further improve system operations.

Updating flood and weather information to evaluate facility safety and operations by working with the National Weather Service and other agencies to evaluate and update data and methods. These upgrades will incorporate historical precipitation records and trends to more accurately predict large and extreme flood events.

Combating invasive species by developing biocontrol methods, more efficient pesticide applications, and habitat restoration techniques. Many aquatic and riparian invasive species are increasing costs and harming Reclamation facilities' operations and water and power deliveries.

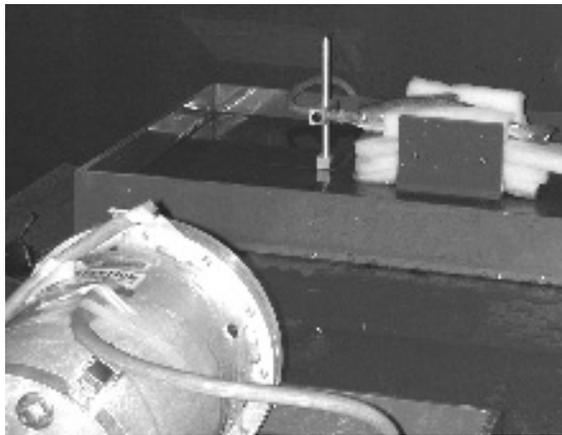
Keeping the lights on and affordable by conducting a wide variety of hydroelectric research. Methods to tune and adjust power stability equipment and improve modeling can more accurately show stability limits. A new hardware probe to detect faults in stator windings was designed, and fabrication has begun.

Finding inexpensive ways to operate and maintain an ever-aging infrastructure by exploring non-invasive and innovative methods to determine conditions, extend the structure life, and make repairs to reduce the likelihood of impacts to water deliveries.

For more information about the Science and Technology Program, see the program's website at < <http://www.usbr.gov/research> > .

Grand Coulee Strobe Light Study

The 3-year Grand Coulee Strobe Light Study investigates the effectiveness of using a strobe light array to discourage kokanee salmon in Lake Roosevelt from entering the Grand Coulee Powerplant. Resident fish in Lake Roosevelt are extremely important to the Colville Confederated Tribes and Spokane Tribe and are considered an Indian Trust Asset. The tribes have worked cooperatively for many years to develop a fishery to replace the anadromous fish runs blocked by Grand Coulee and Chief Joseph Dams. Strobe light technology has the potential to prevent fish entrainment in turbine intakes.



The research strobe light array at Grand Coulee is monitored for fish behavior and light intensity at varying distances.



One facet of strobe light research investigates long-term damage to the vision system of fish exposed to high-intensity strobe light energy.

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 opportunities. Reclamation manages 8.6 million acres of land throughout the West for project purposes such as facility operations, recreation, fish and wildlife enhancement, and floodplain management.

In partnership with local, State, and other Federal agencies, Reclamation manages 308 recreation sites that have 90 million visits each year. Hoover

Dam alone receives more than 1 million visitations a year. Recreation facilities on Reclamation lands include more than 30,000 campsites, 700 boat ramps, and 140 swimming beaches. Reclamation administers 5 million acres of land and water available for recreation, including nearly 13,000 miles of shoreline. More

than 80 percent of Reclamation-owned recreation areas are managed by other entities, including cities, county and State recreation agencies, and other Federal agencies. Such partnerships are key to accomplishing Reclamation's goal of providing quality recreation. In FY 2002, Reclamation completed two new publications related to outdoor recreation. The *Recreation Facility Design Guidelines* and the *Sign Guidelines for Outdoor Public Use Areas* were the first of these types ever developed by Reclamation.

Resource Management Plans

To ensure a comprehensive and balanced approach to land management, 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.

GPRA Goal for Complete Resource Management Plans

Annual Goal/Performance Measure In FY 2002, improve land stewardship by completing resource management plans (RMPs).

Indicator Number of RMPs completed.

<u>Annual Target</u>	<u>Annual Results</u>	<u>Goal Status</u>
14	5	Behind target

Goal Notes In general, RMPs are taking longer, are more politically sensitive, and are costing far more than originally anticipated. All the RMPs not completed in FY 2002 are scheduled for completion by the end of FY 2003. However, higher costs and longer timeframes will be reflected in FY 2003 targets, resulting in a reduction in the number of RMPs scheduled for completion in FY 2003.

Data Source RMPs

In FY 2002, Reclamation developed RMPs for five project areas in the States of Idaho and Washington, one in Colorado, and one in Utah. Three other plans are underway in Oregon and Idaho, five in California, four in Utah, and two in New Mexico.

Recreation Facilities Development

In FY 2002, Reclamation completed construction of new recreation facilities in Navajo State Park, Colorado. The 3-year, State cost-shared project, provided funding to construct a visitor center, campground, and day use areas.

Reclamation also provided about \$2.5 million for rehabilitation of Willard Bay recreation area, Utah, and \$19,076 for preliminary design work to upgrade East Canyon recreation area, Utah.

Under Title 28, the Department of the Interior provides funds to assist States and local entities in establishing wild, scenic, and recreational areas. In FY 2002, Reclamation provided \$30,000 in Title 28 funding to construct new boat ramps at Ririe Reservoir, the Blacktail Recreation site in Idaho, and Lake Owyhee, Oregon. Reclamation also provided \$60,000 to the city of Lewiston, Idaho, to provide a roadway, accessible sidewalks, parking, and a new restroom for a city park on Reclamation lands.

Reclamation created this display for a popular visitor center hosted by America's Public Lands in Salt Lake City, Utah, during the XIX Winter Olympics.



Promoting America's Public Lands

During the XIX Winter Olympics, Reclamation joined the National Park Service, Bureau of Land Management, U.S. Forest Service, and Utah State Parks and Recreation to host displays showing the values and benefits of America's public lands. This organization, called America's Public Lands, hosted an extremely successful visitor center adjacent to the Olympic Plaza. America's Public Lands helped staff the Utah Media Center, which allowed them to meet with national and international media while carrying the message of the multiple-use benefits of America's public lands.

Fish and Wildlife Management and Development

Reclamation's mission is to “manage, develop, and protect water and related resources in an environmentally . . . sound manner” To that end, Reclamation addresses environmental needs by improving habitat conditions for fish and wildlife and taking a watershed approach to decisionmaking as part of its ongoing water and power operations.

Habitat Improvements

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

Providing water for endangered species is a primary focus of drought assistance. In New Mexico, for example, Reclamation spent more than \$4 million to purchase water to maintain silvery minnow habitat in various reaches of the Middle Rio Grande and for endangered fish on the Pecos River. Reclamation's purchase of additional water allowed the agency to continue to meet water contract obligations.

Reclamation also delivered 90,000 acre-feet of water into the Green River from Flaming Gorge Reservoir and 15,000 acre-feet of water into the Provo River from Deer Creek Reservoir in Utah.

Navajo Reservoir Operations Draft Environmental Impact Statement

Reclamation released the *Navajo Reservoir Operations Draft Environmental Impact Statement* for public review in September 2002. The document provides an overview of the environmental impacts of operating the Navajo Reservoir to implement flow recommendations provided by the San Juan River Basin Recovery Implementation Program. The purpose of the program is to provide sufficient releases of water at times, quantities, and durations necessary to conserve two endangered fish species in the San Juan River downstream from Farmington, New Mexico.

Reclamation will maintain the authorized purposes of the Navajo Unit, which include future water development activities in the San Juan River Basin.

Stream Flow Restoration below Pathfinder Dam

Since the 1909 completion of Pathfinder Dam in Wyoming, a 4-mile segment of the North Platte River below the dam did not have flow year-round. After completing Fremont Power Plant in 1961, this segment of the river had flows only during the summer irrigation season, when the downstream irrigation demand exceeded the Fremont powerplant's capacity of approximately 3,000 cubic feet per second (cfs).

A low-flow outlet was constructed in the dam, and a habitat improvement project was implemented to increase flows. A nested low-flow channel was also developed within the existing river channel, including shallow riffle areas and deeper pools. This habitat improvement was completed during the spring of 2002. Key agencies and participating groups included Wyoming Game and Fish, Mitigation Funds - Colorado Interstate Gas Company, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and the Wyoming Fly Casters. The combined efforts of these groups successfully restored flows in the 4-mile segment of the North Platte River, which is expected to evolve into a thriving trout stream.

Federal Columbia River Power System Improvements

Reclamation, the U.S. Army Corps of Engineers, and Bonneville Power Administration completed the first full year of implementation, planning, and operations under the National Oceanic and Atmospheric Administration Fisheries (National Marine Fisheries Service) and U.S. Fish and Wildlife Service biological opinion on the operation of the Federal Columbia River Power System. The National Marine Fisheries Service concluded that recovery actions taken in 2001 and planned for 2002 by the agencies to benefit listed fish are meeting the planning schedule.

One action required under the biological opinion in FY 2002 was the installation of two fish screens at Burbank Pumps No. 2 and No. 3 on the Columbia River. Also, four small fish screens were installed on agricultural

pumps located in Casey Pond and Burbank Slough area of the McNary National Wildlife Refuge, approximately 9 miles southeast of Pasco, Washington.

Navajo Dam: Insuring Water for Endangered Fish

An estimated 124,000 acre-feet of water was delivered from Navajo Dam and Reservoir in New Mexico to maintain downstream endangered fish habitat, which required flows in the lower San Juan River at above 500 cfs.

Fish screens were installed at Burbank Pumps No. 1 and 2 on the Columbia River.



In recent years, the Aspinall Unit in Colorado has been operated to maintain 300 cfs downstream from the Redlands Diversion Dam for endangered fish passage and endangered fish habitat. Because of the severe drought, an agreement was reached with the U.S. Fish and Wildlife Service and water users to maintain flows between 100 and 300 cfs below Redlands, varying by month. Approximately

48,000 acre-feet of Aspinall Unit water was provided to maintain these endangered fish flows.

Other Habitat Improvements

In central Arizona, Reclamation and the Arizona Game and Fish Department funded a habitat suitability model and habitat-use study for the endangered Southwest willow flycatcher; these two agencies also purchased a conservation easement on 1,420 acres near Benson, Arizona. The land purchase will help satisfy a requirement to mitigate the effects of

Reclamation dams and other activities on native fish and aquatic life in Arizona. It will also help The Nature Conservancy restore year-round water flows to about 20 miles of the San Pedro River in southern Arizona.

In cooperation with Pima County in southern Arizona, Reclamation purchased a 160-acre parcel of land near Tucson. The parcel will mitigate habitat lost because of agricultural development on the Fort McDowell Indian Reservation.

Other activities included restoration of 25 acres of riparian habitat at the Havasu National Wildlife Refuge in Arizona, located just across the river from Needles, California, 211 acres of fallow agricultural lands, and another 60 acres in various areas along the river. More than 30,000 trees were planted in FY 2002, and another 71,390 trees were purchased from the Colorado River Indian Tribe for restoration projects at various locations throughout the refuge in FY 2003.

Reclamation successfully negotiated a Memorandum of Understanding (MOU) with water districts, Idaho State agencies, the Upper Salmon Basin Watershed Project, and the Lemhi Irrigation District to establish long-term plans for permanent instream flows in the Lemhi River. Pursuant to the MOU, Reclamation leased water in the Lemhi River for a second consecutive year to meet instream flow needs.

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

California Colorado River Water Use Plan

Throughout FY 2002, Reclamation continued to work with Interior, the State of California, and the other Colorado River Basin States to implement California's Colorado River Water Use ("4.4") Plan. In addition to its major role in ongoing negotiations regarding water transfers, Reclamation prepared and issued a draft environmental impact statement, *Implementation Agreement, Inadvertent Overrun, and Payback Policy and Related Federal Actions*. Reclamation was also the lead Federal agency for preparation of a draft environmental impact statement/environmental impact report (EIS/EIR) for the Imperial Irrigation District Water Conservation and Transfer Project and draft Habitat Conservation Plan. Other key pieces of the overall plan were also completed, including the EIS and Record of Decision for lining the Coachella Canal and negotiating successful water and power wheeling agreements for the San Luis Rey Indian Water Settlement.

Deschutes River Conservancy Partnership

Reclamation cost-shares 50/50 with the Deschutes River Conservancy Partnership for water quality and ecosystem restoration projects in the Deschutes River basin of central Oregon. Construction of 13 miles of livestock enclosure fence will protect vegetation along the Deschutes River, Trout Creek, and Eight Mile Creek. Also, as part of this partnership, about 500 feet of streambank below Reclamation's Wickiup Reservoir were protected from erosion by installing root wads and trees.

Salton Sea Ecosystem Restoration

A study with the Salton Sea Authority to develop alternatives for restoring the Salton Sea and its ecosystem continued in FY 2002. Reclamation has been working with the Salton Sea Authority and other interested and involved entities on this study since 1998, when the Congress designated Reclamation the lead Federal agency in a partnership effort to conduct

environmental, feasibility, and scientific studies to prepare a draft EIS/EIR on the Salton Sea and its ecosystem and to develop a restoration alternative from the study.

Rogue River Basin Consultation

A biological assessment is being prepared to evaluate the effects of ongoing operation and maintenance of Reclamation's Rogue River Basin Project in southwest Oregon. The assessment will determine whether proposed or listed critical habitat is likely to be adversely affected by planned operation and maintenance activities. This will help determine if formal consultation is necessary.

Idaho Water Lease Negotiated

Reclamation successfully negotiated a five-party water lease among Idaho Power, Bonneville Power Administration, Idaho Department of Water Resources, and non-project water users for natural flow leasing on the Snake River. According to Idaho Governor Kempthorne, "This lease is a perfect illustration of how cooperation between the State, Federal Government, and the private sector can help bring about a common goal, even in a challenging water year."

Albuquerque Office Receives Environmental Achievement Award

Reclamation's Albuquerque Area Office received the 2002 Department of the Interior Environmental Achievement Award for its efforts with the Middle Rio Grande Endangered Species Act Collaborative Program. The program was recognized for providing leadership to achieve a landmark agreement among numerous parties and for creating a team to ensure successful implementation. Employees in the Albuquerque Area Office and the Socorro Field Office pursued an integrated approach to multiple issues, fostering a process in which stakeholders could meet in the spirit of cooperation to exchange information, ideas, and potential solutions to water management and environmental problems.

Wetlands Restoration

On the Arizona side of the Colorado River north of Yuma, approximately 30 acres of wetlands were restored in a cooperative effort with other agencies. On the California side of the river, about 25 acres were restored and another 125 acres enhanced as part of a project to restore historic backwater channels along the river. This project, scheduled to be completed in the summer of 2003, will ultimately restore or enhance more than 300 acres of wetlands.

GPRA Goal for Wetland Habitat

Annual Goal/Performance Measure In FY 2002, protect and maintain, enhance, restore, or establish wetlands and/or riparian habitat.

Indicator Acres of wetlands and/or riparian habitat protected and maintained, enhanced, restored or established.

Annual Target	Annual Results	Goal Status
9,600	41,425.5	Exceeds target

Goal Notes Due to increased emphasis on recognition of maintenance, restoration, and enhancement activities and unexpected partnership proposals, Reclamation's accomplishments greatly exceeded the assigned target.

Data Source Environmental assessments, biological assessments.

Other cooperative wetlands restoration projects were initiated or continued with the city of Yuma, Arizona; the Navajo and Zuni Tribes; the towns of Sierra Vista and Superior, Arizona; and the University of Arizona. In addition, monitoring and design work continued at three wetlands

sites near Brawley, California, and design work was performed for a wetlands project in Hawaii. In Nevada, projects continued with a coalition of local, State, and Federal interests to restore and maintain wetlands in the Las Vegas Wash just east of Las Vegas and with the Southern Nevada Water Authority on a wetlands plants nursery.

In cooperation with Ducks Unlimited and the Oklahoma Department of Wildlife Conservation, Reclamation has finished plans for the Walnut

The Brawley Wetlands Project in the Imperial Valley will help clean water that eventually flows to the Salton Sea.





Reclamation is part of a multi-agency effort to restore wetlands in the Las Vegas Wash to help protect the water quality in Lake Mead.

Surveys such as this one help determine habitat availability and bird use.



Slough Wetland Project, Oklahoma, which will serve as a primary waterfowl management unit for the area.

Mid-Pacific Region Enhances Wetlands

In FY 2002, the Mid-Pacific Wetlands Development Program set a goal to protect, maintain, enhance, restore, or establish 1,000 acres of wetlands or riparian habitat and at least 5 miles of instream or riparian habitat. The region has exceeded the initial portion of that goal but has not yet completed the 5 miles of instream habitat improvement.

To meet the 1,000-acre target, Reclamation partnered with 20 other organizations to enhance, restore, or establish more than 13,115 acres of wetland and associated upland habitat and 4.75 miles of instream riparian habitat.

Other activities accomplished with these partners included:

- Funding 10 wetland festivals and other educational events.
- Cost-share funding of a Riparian Habitat Joint Venture Coordinator position.
- Sponsoring the International Partners in Flight Conference.



policy and Administration

Reclamation is committed to organizational effectiveness and operating in the best interest of the American public. Reclamation's goals under this program activity include improving security of its information technology systems and strengthening business and financial practices, while increasing workforce diversity and accessibility to the workplace and public areas. Diversity accomplishments are discussed in the "Supplemental Section" of this report.

Information Technology Security

During FY 2002, Reclamation made significant progress in identifying and correcting security deficiencies for information technology (IT) systems.

Key accomplishments include:

- Completed Directives and Standards, which built upon Reclamation's existing IT security policy, including detailed requirements for specific security needs.
- Completed Interim Authority to Operate for key IT systems—this process required a formal collection of documents supporting each system's security systems and identifying and temporarily accepting operational risks for Reclamation IT systems.
- Achieved a more than three-fold improvement in Reclamation employees participation in IT security awareness training.
- Significantly improved the security of Reclamation's network perimeter through the installation of redundantly configured firewalls at all Internet access points, thereby reducing the number of Internet accessible systems by more than 90 percent.
- Completed all necessary security improvement requirements stipulated by the Federal courts in association with the Individual Indian Trust litigation activities, including highly technical vulnerability assessments conducted against Reclamation's network defenses on behalf of the Court's Special Master.
- Established regional IT security managers—administratively separated from their IT operations counterparts—with dedicated IT security responsibilities and improved authority.

Management Integrity and Accountability

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 quality service 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 follow-up 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.