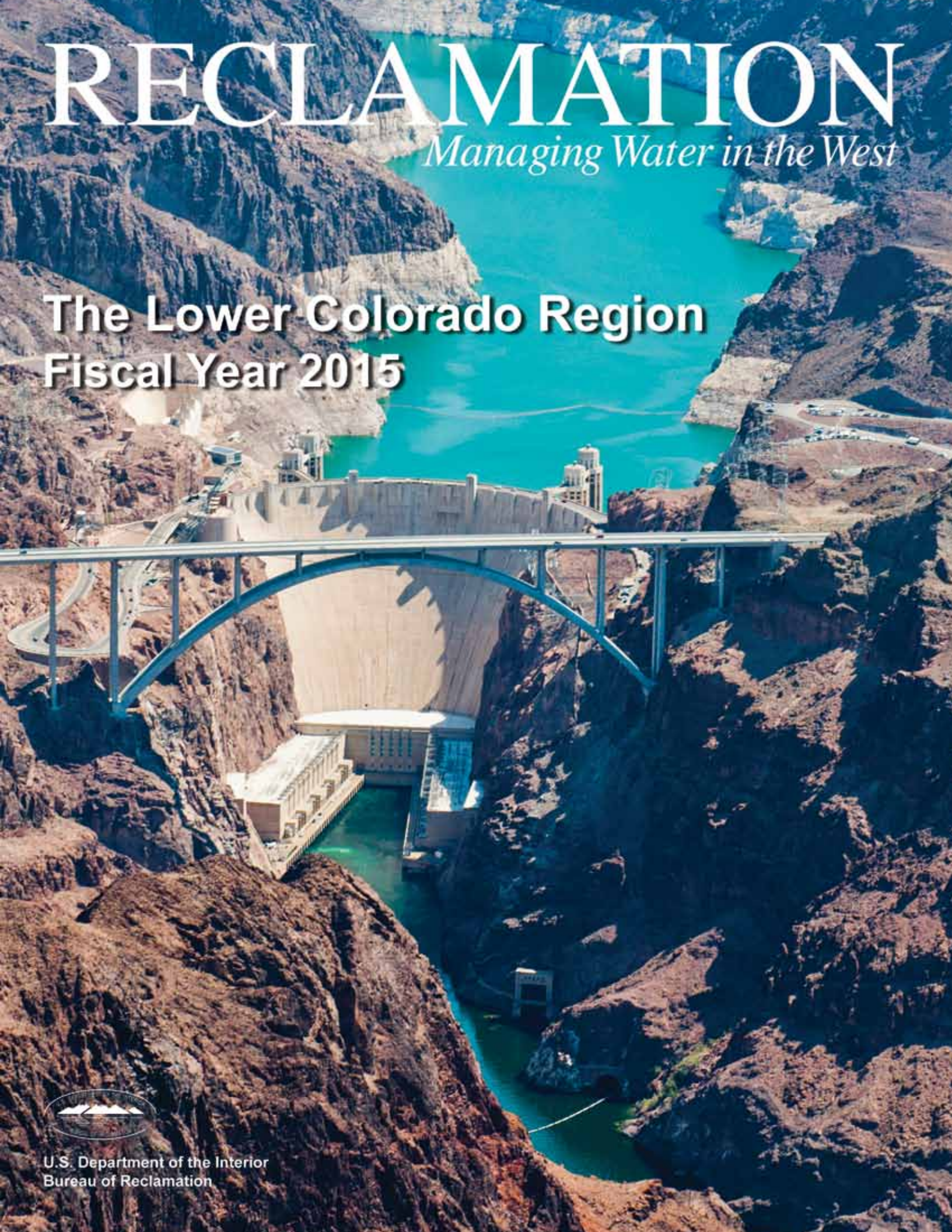
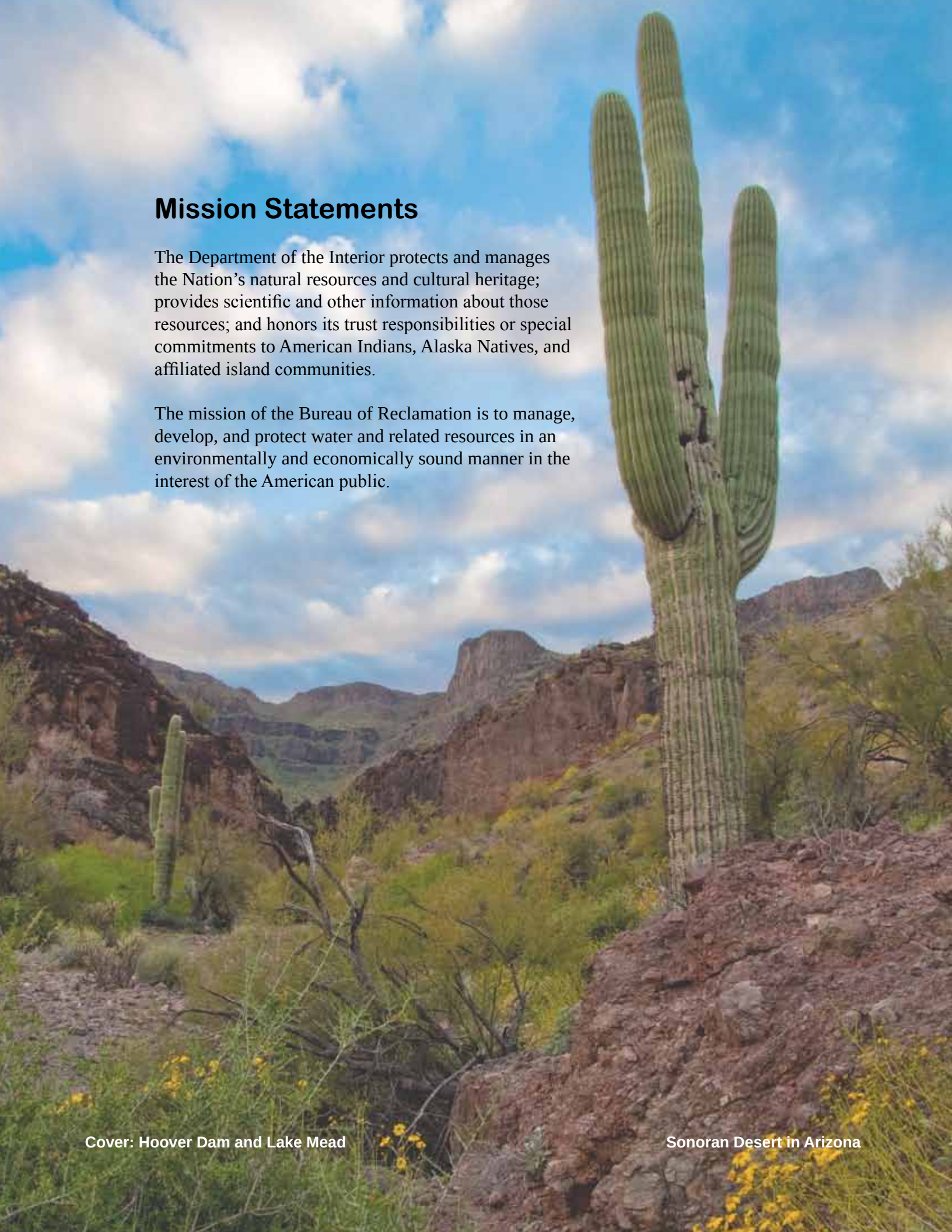
RECLAMATION

Managing Water in the West



The Lower Colorado Region
Fiscal Year 2015

U.S. Department of the Interior
Bureau of Reclamation



Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

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

Cover: Hoover Dam and Lake Mead

Sonoran Desert in Arizona

Regional Director's Message

I am excited to share with you the Lower Colorado Region's first annual report since 2009. This report highlights many of the Region's accomplishments for Fiscal Year 2015 - accomplishments achieved through the skill, dedication, and hard work of our approximately 800 employees.

We have a rich history of developing, managing and protecting our water, power, land, and ecosystem resources in the interest of the American public. Our emphasis, as with all of Reclamation, continues to shift from a focus on project development to one of resource management. Our commitment to more transparent and collaborative problem-solving, with the involvement of all stakeholders, only grows stronger as the complexity of the issues continues to increase.

I am extremely proud of our FY 2015 accomplishments. I am also keenly aware of the many challenges we will face together in 2016 and beyond, and am quite confident we will continue to effectively and efficiently accomplish our mission.

I invite you to read this report and learn more about our successes and challenges over the past year. And please do not hesitate to share any feedback you wish via email at LC_report_feedback@usbr.gov.

Sincerely,

Regional Director
Lower Colorado Region

Rain clouds form over the Great Basin Desert

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Supplemental Material

Lake Mead near Hoover Dam

Who We Are

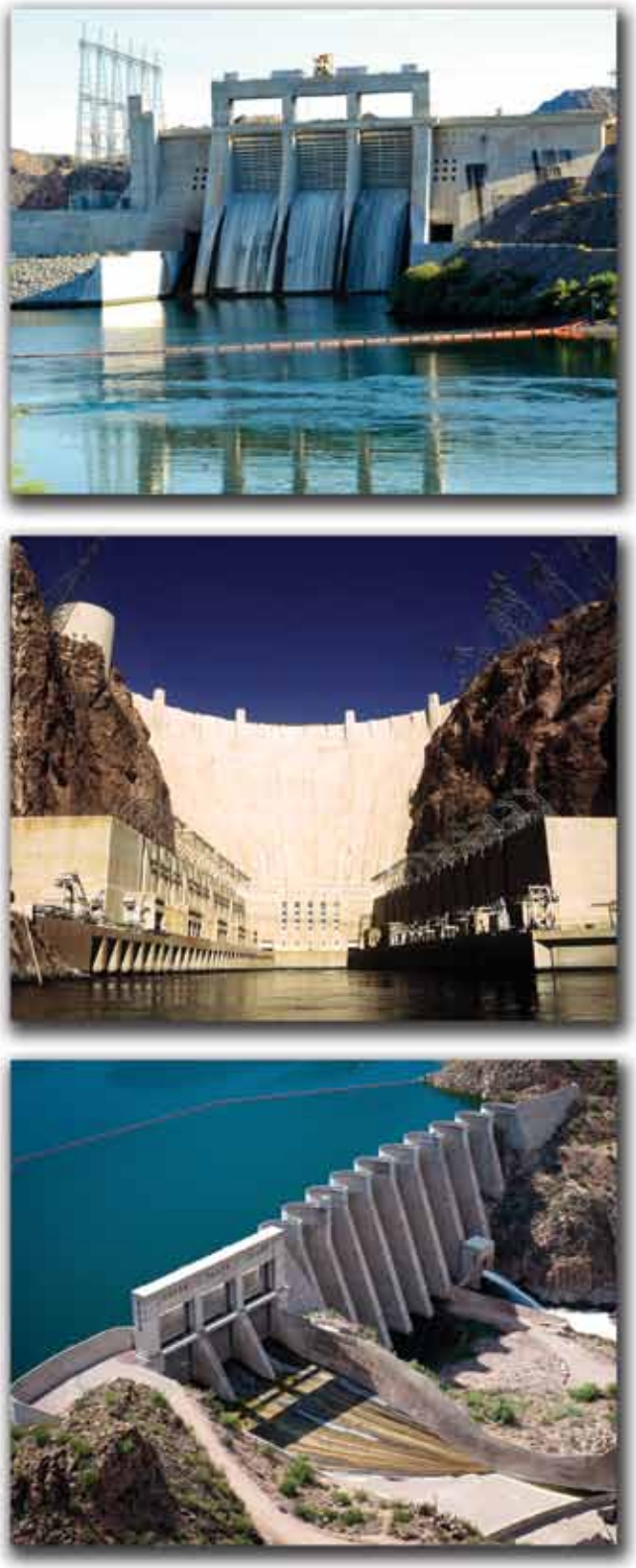
The Bureau of Reclamation established the Lower Colorado Region in 1943 to design, construct, manage and maintain projects and facilities in the Southwest United States.

The Region geographically encompasses southern Nevada, southern California, most of Arizona, a small corner of southwest Utah, and the Gila and Little Colorado River Basins in west-central New Mexico – or about one-tenth of the land area of the western United States. Reclamation employees began working in this area in 1902, shortly after Congress passed the Reclamation Act.

Some of Reclamation's earliest and best known facilities are located in the Region, including Theodore Roosevelt Dam, Hoover Dam, and the All-American Canal. Other projects include the Central Arizona Project and the Robert B. Griffith Project, now the Southern Nevada Water System.

World-famous or lesser known, projects in the Region have contributed significantly to the economic growth and development of the Southwest. Whether operated and maintained by Reclamation or by others, these projects will continue to play a significant role in the Southwest for decades to come.

Building water and power facilities was our major focus for most of the 20th century. Today, we are focused primarily on operating and maintaining our facilities,



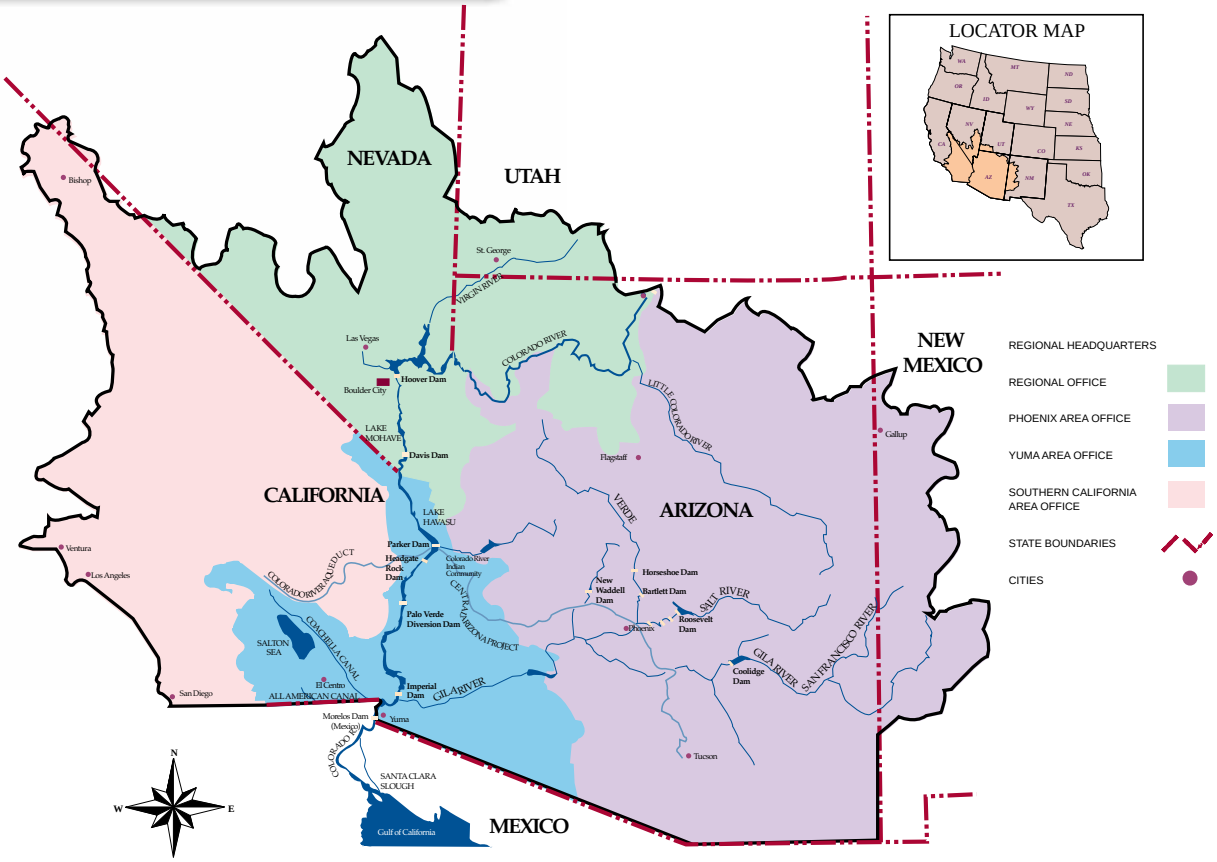
From top to bottom, Davis Dam (Colorado River, AZ/NV), Hoover Dam (Colorado River, AZ/NV) and Bartlett Dam (Verde River, AZ)

ensuring the safety and security of our projects and all employees and visitors, improving efficiencies in water and power delivery and use, and protecting and preserving our natural and recreational resources.

The Region is comprised of 19 primary offices that perform a variety of critical functions to ensure efficient and successful program accomplishment. Among these are four Area Offices which are located in Phoenix and Yuma, AZ; Temecula, CA; and at Hoover Dam.

Top, New Waddell Dam (Agua Fria River, AZ) and center, All-American Canal (Imperial County, CA)

Below, the Lower Colorado Region covers about 1/10 of the land area of the western United States.



Lower Colorado Region

$513 Million
Total FY15 budget

13
Hydropower plants

15
Dams

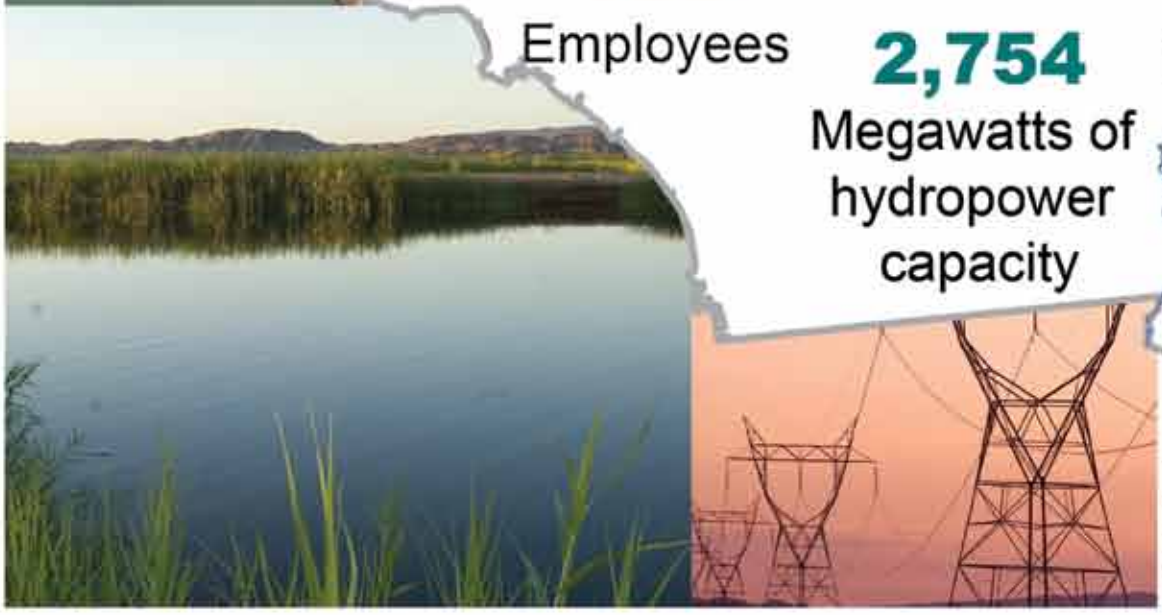
5.6 Billion
Kilowatt-hours produced in 2015

13
Reservoirs

799
Employees

2,754
Megawatts of hydropower capacity

1
National Water Trail



1
Border neighbor (Mexico)

By the Numbers

Over 3 Trillion

Gallons of Colorado River water delivered

The Region includes southern Nevada, southern California, most of Arizona, a small corner of southwest Utah, and the Gila River Basin in west-central New Mexico, or about one-tenth of the land area of the western United States. The U.S.-Mexico border forms the Region's southern boundary.

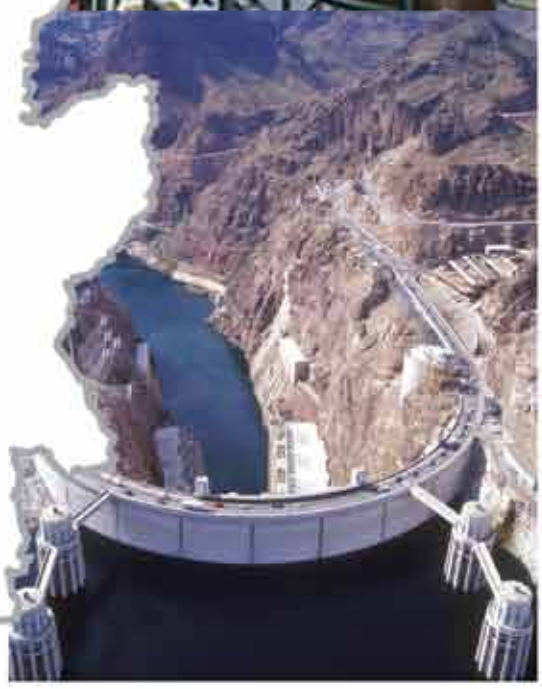
34.1 Million

Acre-feet of reservoir capacity

(An acre-foot is 325,851 gallons)

$3 Billion

Value of water related outdoor recreation activities



32

Recreation areas

1.3 Million

Acres of land owned/managed

Our Budget

The Lower Colorado Region's total operating budget in Fiscal Year (FY) 2015 was about $513 million, or more than half a billion dollars. Most of our annual funding is provided by program revenues or project partners. In FY 2015, approximately 22 percent of our budget was from Congressionally-appropriated dollars.

In FY 2015, the Region's funding sources included:

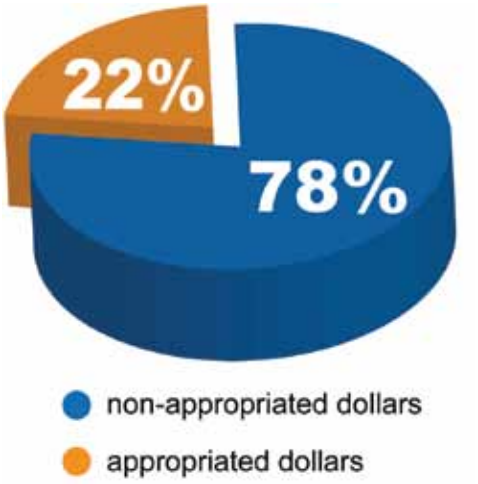
- Congressionally-appropriated funds;
- permanent appropriations from the Colorado River Dam Fund;
- the Lower Colorado River Basin Development Fund;
- other federal funds, such as those from the Southern Arizona Water Rights Settlement Act; and
- non-federal funds from Parker-Davis power contractors, and other cost-share partners.

This annual funding is used to effectively manage water and power resources to meet annual and long-term goals and commitments.

Projected work and budget requests are aligned to Department of the Interior performance goals, to Reclamation and Regional management goals and initiatives, and to local needs. A Regional Budget Management Team ensures the Region's programs and associated budgets are formulated and executed effectively to meet program objectives.

In FY 2015, **Congress appropriated $111.3 million** for Regional programs and activities. This funding supported the many programs and activities we undertake to implement, on behalf of the Secretary of the Interior, the "water master" role on the lower Colorado River.

FY 2015 Funding Sources



We also used the funds to meet Endangered Species Act requirements, address critical infrastructure needs, enhance water supplies through conservation and quality improvements, and meet international treaty compliance and legislative requirements.

In addition, appropriated funds were used to pay a portion of the operations and maintenance costs of facilities along the lower Colorado River between Davis Dam and the southerly international border with Mexico. The Lower Colorado River Multi-Species Conservation Program (LCR MSCP), and long-range planning efforts such as the Colorado River Basin Water Supply and Demand Study's *Moving Forward* effort to address Colorado River Basin water issues, were also funded from this source.

Reclamation-wide policy and management activities, as well as essential oversight work not charged to specific project or program activities, were also accomplished with these funds.

Permanent funding totaled $102 million in FY 2015. This comes from the Colorado

River Dam Fund, which is mostly revenue from the entities that have long-term contracts for power generated at Hoover Dam.

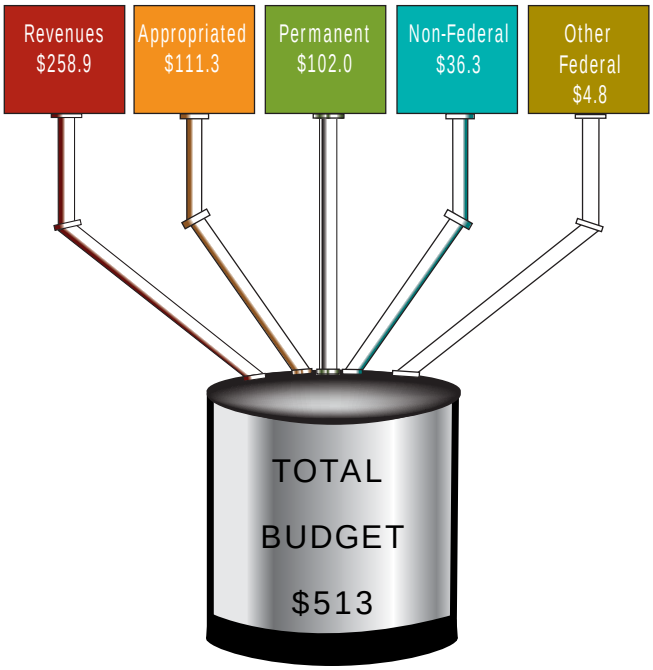
The 1984 Hoover Dam Power Plant Act requires that revenue from the sale of Hoover Dam power be deposited into the fund and made available to pay for operations, maintenance, replacement, interest, and repayment associated with the Boulder Canyon Project.

Revenue program funds totaled $258.9 million in FY 2015. The Lower Colorado River Basin Development Fund was established by the 1968 Colorado River Basin Project Act to provide funds from the sale of power in Arizona and from payments made each year by the Central Arizona Water Conservation District (CAWCD) to repay the construction of Central Arizona Project (CAP). Revenues deposited into the Development Fund come from a number of sources, including the sale of power from the Navajo Generating Station that is surplus to CAP pumping needs; a surcharge on power sold in Arizona from Hoover, Parker and Davis Dams; and other miscellaneous revenues from CAP operations.

The Arizona Water Settlements Act of 2004 (AWSA) also authorizes revenues that would have been returned to the Treasury for repayment of the CAP construction costs to be retained in the Development Fund and invested. The earnings from these investments are also held in the Fund. All the revenue, after being credited against the annual payment owed by CAWCD, is used to pay for the cost of delivering CAP water to Indian tribes, constructing distribution systems to deliver CAP water to tribal lands, and other costs authorized under the Act.

Other federal funding, a total of $4.8 million in FY 2015, includes revenues from the Southern Arizona Water Rights Settlement Act. These funds are used for the annual delivery of irrigation water to the Tohono O'odham Nation.

FY 2015 Budget
($ in millions)



Non-federal funding totaled $36.3 million in FY 2015. Of this, the Parker and Davis Dam power customers provided about $15.7 million to operate and maintain the two facilities. LCR MSCP partners provided $16.15 million for activities conducted under that program. Cost-share partners contributed $4.45 million, primarily for water conservation activities.

FY 2015 Financial Commitments

In FY 2015, the Region obligated $135.7 million for project-related activities through the award of 982 acquisitions, 155 financial assistance agreements, seven P.L. 93-638 Indian Self-Determination contracts, and 15,475 purchases.

Through these awards and purchases, small businesses and tribes benefitted by approximately $40.6 million and $38.7 million, respectively. About 53 percent of the funds obligated through these awards and purchases were from non-appropriated funds.

Managing the Lower Colorado River

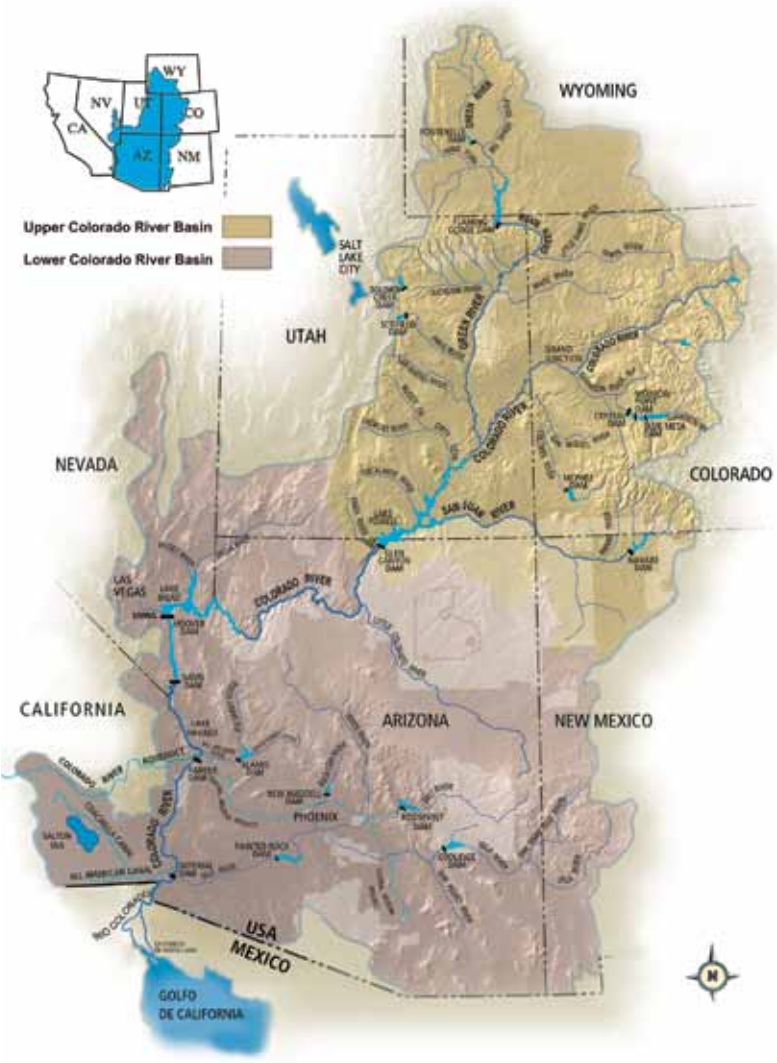
The Water Master Role

The treaties, compacts, decrees, statutes, regulations, contracts and other legal documents and agreements applicable to the allocation, appropriation, development, exportation and management of the waters of the Colorado River Basin are often referred to as the "Law of the River."

Although there is no single, universally agreed upon definition of the Law of the River, it is useful as a shorthand reference to describe the longstanding and complex body of legal agreements governing the Colorado River that continues to evolve over time.

Pursuant to the Law of the River, the Secretary of the Interior manages the last 688 miles of the Colorado River, from Lee Ferry in northern Arizona to the border with Mexico. This includes the contracting, delivery, and accounting of all water use from the mainstream of the lower Colorado River.

Colorado River Basin



The Colorado River and its tributaries provide water to nearly 40 million people for municipal use and irrigate nearly 5.5 million acres of land. This water also supports 22 federally recognized tribes, 7 National Wildlife Refuges, 4 National Recreation Areas, and 11 National Parks.

The Region implements most of the management functions on behalf of the Secretary, including scheduling of water releases from mainstream facilities (on a monthly, daily and, for some facilities, hourly basis); measuring, recording and reporting water diverted and returned to the mainstream; administering contracts for water delivery; accounting for all water use; and developing the *Annual Operating Plan for Colorado River Reservoirs* (AOP) each year, in conjunction with Reclamation's Upper Colorado Region and in close coordination with a broad range of partners and stakeholders throughout the Basin.

The AOP documents operating decisions for the reservoirs for the upcoming year. For Lake Powell and other Upper Basin reservoirs, the standard time period for a year is the "Water Year" (WY), from October 1 through September 30. For Lake Mead and other Lower Basin reservoirs, the calendar year (CY),

January 1 through December 31, is the standard time period. Documented decisions include the amount of water to be released from Lake Powell through Glen Canyon Dam; whether a "surplus, normal, or shortage" condition will govern the operation of Lake Mead; and the amount of water available to Mexico under the 1944 Water Treaty and subsequent U.S.-Mexico agreements (referred to as "minutes to the Treaty"). Because the water supply for the coming year is highly uncertain, appropriate operational changes are made within the framework of the AOP as water supply conditions change during the year.

In a "normal" year, water users in Arizona, California, and Nevada are entitled to 2.8, 4.4, and 0.3 million acre-feet (maf), respectively, and under the 1944 Water Treaty, Mexico is allotted 1.5 maf.

Despite the ongoing drought in the Basin, there has not yet been a shortage in the Lower Basin, nor a reduction to Mexico. This is due primarily to the ability to store water in high flow years, particularly at Lake Mead.

System Status and 2015 River Operation Highlights

Approximately 92 percent of the total Colorado River Basin water supply each year originates in the Upper Basin. The cumulative precipitation within the Upper Basin was 102 percent of the 30-year (1981-2010) average in WY 2015. Inflow into Lake Powell during WY 2015, corrected for the effects of operations upstream, was 94 percent of the 30-year average. Overall, total water in storage system-wide increased slightly from 50 to 51 percent of capacity during WY 2015.

The total inflow into Lake Mead is a combination of the water released from Glen Canyon Dam and inflows from tributaries to the river between Glen Canyon and Hoover Dams.

In WY 2015, inflow into Lake Mead was 9.72 maf, including 9.0 maf released from Glen Canyon Dam and 724,000 acre-feet (af) of inflow, primarily from the Little Colorado and Virgin Rivers. Inflow into Lake Mead for Calendar Year 2015 was 9.55 maf and release through Hoover Dam was 9.37 maf. Lake Mead began CY 2015 at elevation 1,087.79 feet, with 10.67 maf of water in storage (approximately 41 percent full). Lake Mead ended CY 2015 at elevation 1,080.91 feet with 10.09 maf of water in storage (approximately 39 percent full), a decrease of 580,000 af.

As documented in the 2015 AOP, 7.5 maf of water (plus or minus credits for water conserved and left in Lake Mead) was available for delivery to entitlement holders in the Lower Basin in CY 2015, and in accordance with the 1944 Water Treaty, 1.5 maf was available for delivery to Mexico subject to adjustments provided for in Minute 319. Preliminary data for CY 2015 indicate water use in the Lower Basin States and Mexico was less than the amounts determined to be available. The *2015 Colorado River Accounting and Water Use Report*, published in May 2016, includes, among many other things, the total amount of water used by each entity in the Lower Basin, the total water delivered to Mexico, and the amounts of water stored in Lake Mead and off-stream.

In FY 2015, we continued our focus on enhancing river operational efficiencies by improving the accuracy of irrigation water orders and deliveries. Also, the Warren H. Brock Reservoir, coupled with other operational improvements, continued to allow the capture of water arriving at the Northerly International Boundary in excess of Mexico's scheduled delivery. This water was subsequently delivered to the Imperial Irrigation District as part of its annual entitlement. In CY 2015, excess flows were 14,829 af, about a 50 percent reduction from CY 2014.

Scheduling Water Deliveries

Delivering 9 maf of water and over 6 billion kilowatt-hours of electric energy in the lower Colorado River Basin is a 24-hour-a-day, 365-day-a-year job that requires extensive communication and coordination among Reclamation reservoir operators in Boulder City, NV and Yuma, AZ; Western Area Power Administration (Western) in Phoenix, AZ (which markets the power from Hoover, Davis and Parker Dams); and the water entitlement holders throughout the Lower Basin.

The reservoir operators must schedule enough water from Lake Mead to ensure water orders below Hoover Dam are met, while ensuring elevations at downstream reservoirs and river flows are within appropriate operating ranges. Reservoir operators use state-of-the-art procedures involving real-time measurements, a relational database, and hydrologic models developed utilizing the RiverWare™ software to monitor and project current and future operating conditions. Projections consider a multitude of factors, including the amount of water each contractor is scheduled to take from the river, the amount of water expected from "side inflows" (water flowing from washes, gullies or tributaries) and water expected to be lost in transit, and the time needed for water released from Lake Mead to arrive at each delivery point (up to 5 days to reach Imperial Dam).

Reservoir release schedules, prepared as much as a month in advance, change in real-time conditions. Operators monitor reservoir and river conditions, communicate regularly with water users, and update schedules on a weekly, daily and sometimes hourly basis. The monthly water release schedule for Hoover Dam is converted to an estimate of an energy "generation target" for the month which Western uses to schedule and deliver hydropower on a real-time basis to power contractors in southern Nevada, Arizona, and southern California.

Increasing Water Availability

Water is the Southwest's most precious natural resource, but the supply is increasingly stressed by the demand placed on it. Adequate water supplies are essential to survival, to a healthy ecosystem, to energy production, and to economic sustainability. Scientific analyses show the potential for significant climate-related impacts on the region's available water supplies that could result in less water availability in the future.

To address these projected impacts and help relieve demand on the Colorado River and other sub-basins in the Region, we are actively engaged in the Department of the Interior's WaterSMART program. This initiative, under the SECURE Water Act, allows us to work with state and local water agencies to plan for changing water supplies and demands, and to take action to secure water resources for their communities, economies, and ecosystems. This is achieved through a number of programs including Basin Studies, Water Conservation Field Services, Water and Energy Efficiency Grants, Cooperative Watershed Management, Title XVI Water Reclamation and Reuse, and Drought Response. These programs provide technical and financial assistance to organizations with water and/or power delivery authority through agreements typically requiring a 50 percent non-federal cost share.

In FY 2015, the Region participated in the Southeast California Regional, the Los Angeles, the West Salt River Valley, and the Lower Santa Cruz Basin Studies to project the impacts of climate change on future water supply and demand. Twenty-five water and related resources planning studies totaling $2.6 million, of which $1.3 million of in-kind services was provided by study partners, were also underway in FY 2015. These studies are designed to help local and state agencies develop strategies to sustainably meet their current and future water supply needs.

Reclamation's WaterSMART programs help state and local water agencies improve and implement technologies related to water reclamation and reuse. Pictured here is equipment at the San Luis Rey Wastewater Treatment Plant in southern California.

The combined funding from the WaterSMART program led to the development of 24 awards, all in support of water conservation. For example, the Coachella Valley Water District was awarded $1 million to support its irrigation improvement program. These agreements and grant programs will result in annual water savings of 10,000 af, or enough water to sustain approximately 50,000 people every year.

Also, under the Title XVI Water Reclamation and Reuse Program, the Region awarded four grants totaling $14.6 million to help southern California agencies finalize design and construct

water recycling and treatment plants. These include the City of Corona's pipeline and recycled water storage system, the Sweetwater Authority's water reclamation project, the High Desert wastewater collection and reuse facility, and the Chino Desalter II improvement project.

In FY 2015, Title XVI projects operating within southern California produced about 308,000 af of water.

A Central Arizona Project Unit for New Mexico

The Colorado River Basin Project Act of 1968 and the 2004 Arizona Water Settlements Act (AWSA) authorized the Secretary of the Interior to enter into contracts with west-central New Mexico water users that would, under certain conditions, allow them to consumptively use Gila River water that is currently being used by entities in Arizona. In exchange, an equivalent amount of CAP water would be delivered to users in Arizona. The State of New Mexico has elected to pursue and construct a diversion project, also known as a "Unit," under the AWSA.

Pursuant to the AWSA and an agreement executed between the State's New Mexico CAP Entity (Entity) and the Department of the Interior, a full environmental review of a potential Unit, including review under the National Environmental Policy Act (NEPA), the Endangered Species Act, and related statutes, must be performed. In conjunction with the NEPA process, Unit alternatives will be analyzed using the *Federal Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies*.

The Lower Colorado Region and the State, acting through its New Mexico Interstate Stream Commission, are developing agreements that outline the roles and responsibilities, funding arrangements and other requirements of each entity as joint leads of the NEPA process, as well as the role of the Entity as project beneficiary, and the roles of other agencies that may participate in the environmental compliance process.

A Record of Decision regarding a final alternative for the project could be issued as soon as December 2019, but no later than December 2030. If a Unit is ultimately implemented, Reclamation could design, construct, operate and maintain it. Any or all of these responsibilities could be transferred to the Entity, which would hold title to the Unit.

The Gila River near its headwaters in New Mexico.

Yuma Desalting Plant: A Potential Water Conservation Tool

Operating the Yuma Desalting Plant (YDP), a reverse osmosis desalting facility near the border with Mexico, would increase water availability in the Region.

The Yuma Desalting Plant is a 72 million gallon-per-day, reverse osmosis plant built by Reclamation for Colorado River salinity control and water recovery.

To address highly saline flows returning to the Colorado River from an agricultural district near Yuma, AZ, Title I of the 1974 Colorado River Basin Salinity Control Act authorized the extension of an existing agricultural drain to bypass the river and convey the drainage water directly into Mexico. The Act also authorized the construction and operation of a plant to desalinate and recover a portion of this bypassed water.

Flows from the Bypass Drain, which was completed in 1978, do not count toward the annual delivery of Colorado River water to Mexico pursuant to the 1944 Water Treaty. They have, however, contributed to the growth of the Cienega de Santa Clara wetland in Mexico.

The YDP was designed to desalinate most of these bypass flows, allowing the treated water to be discharged into the Colorado River for inclusion in the water deliveries to Mexico. This would allow an equivalent volume of water to be retained in Lake Mead. These bypassed flows averaged about 126,000 af annually from 2010-2014.

The YDP, completed in 1992, was operationally tested at one-third capacity in 1992-1993. Flooding from the Gila River in 1993 resulted in damage to the conveyance infrastructure, requiring the plant to cease operations. While necessary repairs were being made, relatively high flows on the Colorado River in the mid- to late-1990s lessened the need to operate the plant. Since that time, the YDP has been maintained, but not operated, except for a brief period in 2007, and for nearly one year from 2010-2011.

In FY 2015, the Region continued to maintain the plant and upgrade key components necessary for future, long-term operation.

Power Operations

Historically, the combined generation of the Hoover, Davis and Parker Dam powerplants has been more than 6 billion kilowatt-hours (kWh) each year. Although drought has drastically lowered Lake Mead's water level and reduced Hoover Dam powerplant's rated capacity from 2,074 megawatts (MW) to about 1,551 MW, the dam generated nearly 3.6 billion kWh of power in FY 2015, and net generation from the three plants exceeded 5 billion kWh.

Hoover Dam Hydro: A Powerful Resource

Hoover Dam is operated as a peaking powerplant, meaning it generates power when there is a high demand for it. Its energy is combined with other sources to provide a consistent amount of electricity to meet demands.

To meet peak demands, Hoover Dam's generators can respond almost instantaneously (at four second intervals) to the Western Area Power Administration's real-time need for power.

A multi-year effort to address the drought's impact on Hoover Dam's power generation continued in FY 2015. As part of modernization activities agreed upon by the Region and the Hoover Dam power contractors, another "wide-head" turbine was installed in the powerplant.

Four of the dam's 17 generating units now use these turbines, which operate more efficiently under the reduced water pressure that has resulted from Lake Mead's lower water level. In concert with other modernization efforts, the plant's capacity at these lower elevations has increased by 105 MW, an amount about equal to adding another generator to the facility.

One additional wide-head turbine will be installed at the dam in FY 2017. This is expected to increase the generating unit's efficiency by about three percent. Additional gains may also be possible and the Region and power contractors are studying the potential benefits and feasibility of additional actions.

A wide-head turbine – one of the technologies being used to address drought conditions on the Colorado River – is prepared to be transported into the Hoover Dam powerhouse.

We are also working with Western to negotiate and execute new, 50-year contracts for Hoover Dam's power output. The current contracts expire in 2017. A total of 46 existing contractors and new allottees, including several Native American tribes which did not have shares of power from Hoover in previous years, are also involved in the process.

Improving the Hoover Dam Powerplant

The water released from Lake Mead flows through Hoover Dam's 17 commercial generating units, producing electricity that the Western Area Power Administration delivers to customers in southern California, southern Nevada and Arizona.

The Lower Colorado Region and the water and power customers who fund the dam's operation, maintenance and improvement activities have been updating its powerplant to increase generating efficiency and maintain generating capacity.

The dam's old, mostly analog generator unit control system was replaced with a new digital control system. This significantly improved the dam's ability to produce more power while releasing the same amount of water.

Four new "wide-head" turbine runners, the "water wheels" that drive the generators, also have been installed. These new turbine runners allow the generating units to operate more efficiently over a wider range of lake levels than the existing units. Hoover Dam will ultimately have five wide-head turbines.

The power output of the units also was improved by replacing the old cast steel "wicket gates," which control water flow into a turbine, and by modifying the mechanical components so the gates could be opened wider to allow more high-pressure water to flow into the turbines. The tolerances of the wicket gate seals were also improved with a new metal alloy which reduces leakage around the turbines when the units are shut down.

Parker-Davis Project

Davis Dam, about two miles upstream of Laughlin, NV, and Parker Dam, 30 miles south of Lake Havasu City, AZ, were combined into the Parker-Davis Project in 1954. Operations and maintenance at these facilities is funded by the entities that receive the energy generated at the powerplants.

The Davis Dam powerplant generated 1.1 billion kWh in FY 2015. The dam's electrical system is being modernized by replacing transformers, unit breakers and switchyard equipment. In FY 2015, the Parker Dam powerplant generated 431 million kWh.

A worker observes a rotor being replaced at Davis Dam.

Navajo Generating Station

The Navajo Generating Station (NGS), a 2,250 MW coal-fired generating plant in northern Arizona, is operated by the Salt River Project, which holds 24.3 percent of the plant's output for the "use and benefit" of the U.S. The Region represents the federal interest in the plant.

About two-thirds of the federal share of the plant's output provides approximately 90 percent of the energy used by the Central Arizona Project to pump water from Lake Havasu to users in central and southern Arizona. The remaining one-third of the power is sold and the revenue is used to, among other things, help repay CAP construction costs and fund Indian water rights settlements in central Arizona in accordance with the Arizona Water Settlements Act.

Coal for NGS is supplied exclusively by the Kayenta Mine, located near the town of the same name in northern Arizona. The mine is on lands leased from the Navajo Nation and the Hopi Tribe, and both the powerplant and the mine provide significant economic benefits and job opportunities to these tribes.

In FY 2015, we continued as the lead agency for the development of an Environmental Impact Statement (EIS) to continue the operation of both NGS and the Kayenta Mine Complex through 2044. The EIS and a Record of Decision are scheduled to be complete in 2017.

Supporting Renewable Energy

The Region continued to support renewable energy development, integration, and production in FY 2015. In collaboration with others, we continued to work toward increasing capacities and efficiencies at existing Regional powerplants, supported renewable energy facility development on non-federal projects through the Lease of Power Privilege program, and participated in an assessment of hydropower pumping at Lake Mead and at Horse Mesa Dam on the Salt River Project.

Permits were also approved for the construction of a 14 MW solar photovoltaic power generation facility on lands we administer at the Southern Nevada Water Authority's River Mountains Water Treatment Facility near Las Vegas, and for the construction of nine wind turbines on lands the Region manages in northwest Arizona.

We also continued to participate in a Reclamation-wide study to evaluate ways to reduce the amount of electricity needed for irrigation pumping.

Protecting and Enjoying Water-related Natural Resources

Managing and protecting natural and cultural resources is an important part of the Lower Colorado Region's mission.

More than 1 million acres of land have been acquired for Reclamation projects in the Region. Evolving public demands and regulatory requirements mean these lands are now also needed for other purposes, such as local utility and renewable energy projects, communications facilities, electric transmission lines, non-hydro renewable energy production, recreation, and environmental activities.

Under the National Historic Preservation Act, we consult with many entities including Native American tribes, the public, and state historic preservation offices in the identification and protection of cultural and historic resources on Reclamation lands.

A Sustainability and Environmental Management System (SEMS) reduces our environmental footprint through recycling, sustainable buildings, and energy conservation programs. Our Region's SEMS program is used as a "best practices" model throughout the Bureau of Reclamation.

Lower Colorado River Multi-Species Conservation Program

The Region administers and manages one of the largest environmental programs in the United States – the Lower Colorado River Multi-Species Conservation Program or LCR MSCP. This 50-year, 50/50 cost-share partnership effort among federal and non-federal entities balances the use of lower Colorado River water resources with the conservation of native species and their habitats in compliance with the Endangered Species Act. The program area extends more than 400 miles along the lower Colorado River, from the upper reaches of Lake Mead to the Southerly International Boundary with Mexico.

The endangered Southwestern Willow Flycatcher is using new habitat that is being developed along the lower Colorado River.

Cottonwoods and willows planted at LCR MSCP conservation areas will provide future habitat for a variety of native species. Laguna Conservation Area near Yuma, AZ is shown here.

The partnership is currently comprised of 57 entities, including state and federal agencies, water and power users, Native American tribes, conservation organizations, and other interested parties. The partners primarily participate through the program's Steering Committee.

The LCR MSCP Habitat Conservation Plan (HCP) includes 13 general conservation measures and 65 species-specific conservation measures. Twenty-six species, including seven listed as threatened or endangered under the Endangered Species Act, are covered. Many of the conservation measures will be completed only when the program ends in 2055, as they call for management throughout the program.

Since the program was implemented in 2005, five HCP conservation measures have been completed and 11 conservation areas have been established. "Conservation areas" contain a variety of habitat types that enable multiple species to benefit from a specific area. In FY 2015, more than 1,800 acres of new riparian and marsh areas were established. More than 4,700 acres of new habitat have been established and are being managed for native species. That is about three times more than expected at this stage of the program.

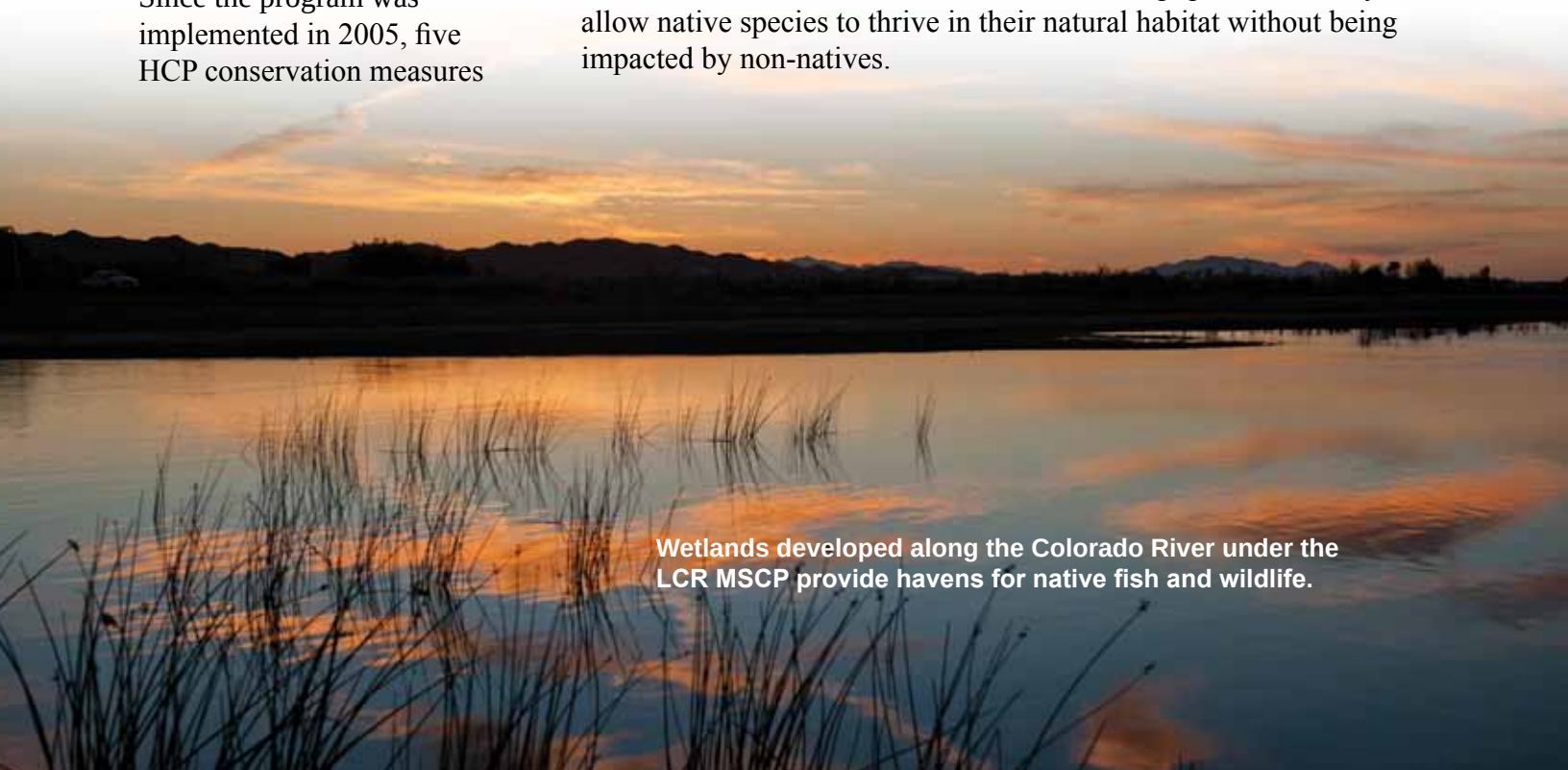
The program also calls for approximately 660,000 endangered razorback suckers and 620,000 endangered bonytail, two native Colorado River fish, to be stocked in the lower river. In FY 2015, 20,000 fish were raised and/or stocked through the LCR MSCP, bringing the totals to about 153,000 razorback suckers and 76,000 bonytail. Approximately 114,000 razorbacks have been stocked into Lake Mohave, which has the largest single remaining population of these endangered fish, to maintain the genetic diversity of this important brood stock.

In FY 2015, the 566-acre Pretty Water Conservation Area on the Cibola National Wildlife Refuge in California was created by clearing invasive tamarisk and planting honey mesquite. Laguna Conservation Area, consisting of approximately 1,100 acres of riparian and marsh habitats, was also completed.

Other Environmental Programs

Protecting Arizona's Native Fish

Barriers are being constructed on Arizona streams to protect native fish. A fish barrier is a structure used to prevent the upstream movement of fish into streams with native fish populations. They allow native species to thrive in their natural habitat without being impacted by non-natives.



Wetlands developed along the Colorado River under the LCR MSCP provide havens for native fish and wildlife.

The Region implemented these management practices as conservation measures associated with the delivery of CAP water to the Gila River Basin of Arizona and New Mexico.

As of the end of FY 2015, fish barriers had been constructed on seven streams and electrical barriers on three canals. Construction of the West Fork of the Black River fish barrier began in FY 2015, and is anticipated to be complete by early summer 2016. Additional concrete drop barriers are anticipated to be added to other Gila River Basin streams.

Protecting an "Urban River"

The Las Vegas Wash, an "urban river" running from the Las Vegas Valley to Lake Mead, carries an average of more than 150 million gallons of water a day from the Valley to the lake, passing through a wetlands corridor on its way.

As a riparian corridor in an urban area, the Wash is an important ecological resource for southern Nevada, providing habitat to about 300 fish and wildlife species and more than 200 species of plants. The Region is one of the 29 members of the Las Vegas Wash Coordination Committee, formed in 1998 to protect this valuable water resource.

Ground penetrating radar and magnetometry were used to investigate archaeological sites near the Las Vegas Wash.

We continued to participate in this partnership in FY 2015, supporting the construction of weirs to control water flows in the Wash and help stabilize its banks against erosion, and by monitoring the effects of other protective work.

We also contracted for a geophysical survey of the Larder Site, a rich prehistoric archaeological site discovered in 2005 along the Wash in the Clark County Wetlands Park. This survey identified significant features that were not visible on the ground surface. Excavation of these areas revealed the floors of two buried house pits, positively verifying the results of preliminary magnetometer survey data.

Further research may be conducted at this site to verify the reliability of geophysical data in identifying buried features. If this data can reliably be used to classify features, geophysical surveys may be used for future archaeological research and preservation projects in similar environments throughout the Mojave Desert region, where only two such surveys have been conducted previously.

Battling Invasive Species

Quagga Mussels

Quagga mussels were discovered in Lake Mead in 2007. The mussel can block water intake structures, pumps and delivery pipes; damage boats, docks, and other recreation facilities; and generally upset the ecological balance of water bodies.

The colonization of quagga mussels can be seen on this boat propeller recovered from Lake Mead.

In FY 2015, the Region continued to participate in Reclamation-wide and interagency task forces seeking to determine and understand the potential future impacts of quagga infestations on water-related infrastructure. These groups are also identifying potential mitigation activities and costs, and are implementing strategies to help prevent this species from spreading to other western water bodies.

The Region is also participating in several activities to demonstrate the effectiveness of measures to mitigate the impacts of quaggas. These include the testing of coatings for deterring mussel attachment on submerged metal surfaces, ultraviolet light systems to protect cooling water systems, and environmentally friendly bacteria to reduce or prevent infestations.

Other Invasive Species Prevention Efforts

The Region is also participating in cost-shared efforts to control giant salvinia and manage tamarisk (salt cedar) in the lower Colorado River basin.

The prolific giant salvinia, considered one of the world's worst aquatic weeds, was discovered in the Palo Verde Irrigation District's (PVID) drainage system near Blythe, CA in 1999, and has since migrated into the lower Colorado River. This plant reduces oxygen content in water, degrades water quality, and can block waterways, threatening both municipal and agricultural water delivery systems.

FY 2015 marked the 11th consecutive year we have partnered with PVID, the Bureau of Land Management, the Department of Agriculture, and the U.S. Fish and Wildlife Service in an effort to reduce and control the further spread of this weed.

Tamarisk plants, which have a significant presence along the lower Colorado River, can narrow and channelize streams and rivers, displace native vegetation, increase wildfire hazards, and limit human and animal use of waterways. Replacing tamarisk with native vegetation can create more desirable habitat for native species, including some birds listed under the Endangered Species Act.

Although the Region does not have a specific program to address the invasive, non-native

A Nevada Conservation Corps youth attacks invasive salt cedar with a chainsaw along the lower Colorado River.

tamarisk plant, we participated in a tamarisk removal and treatment program at Las Vegas Wash in southern Nevada. We also removed tamarisk on the Cibola National Wildlife Refuge along the Colorado River as part of the development of a new LCR MSCP conservation area.

Desert Landscape Conservation Cooperative

A 2011 Department of the Interior Secretarial order established the Desert Landscape Conservation Cooperative (LCC), one of 22 LCCs across North America. These LCCs develop coordinated, science-based information related to conservation of land, water, human, cultural, and wildlife resources.

The Desert LCC is a binational, regional partnership that includes more than 70 organizations. Jointly led by Reclamation and the U.S. Fish and Wildlife Service, it uses applied science to improve natural and cultural resources management and help resource managers analyze and adapt to climate change and other large-scale landscape stressors.

In the Region, the Desert LCC funded two projects to bring together data and models developed through a binational environmental flow demonstration in the Colorado River Delta. The projects created user-friendly tools for predicting hydrologic and ecological responses to water released into the Delta under varying climatic conditions and management actions. These tools will be valuable to both U.S. and Mexican resource managers as the ecological responses of Delta ecosystems are considered in developing further cross-border activities.

The Desert LCC also leveraged non-federal funds to integrate fisheries information from Arizona and New Mexico into the Western Governors Association Critical Habitat Assessment Tool, and created landscape-scale species distribution models for 35 fish species in state wildlife action plans. This project helps Regional managers such as those involved with the LCR MSCP assess water use impacts, biological invasions, and climate change on aquatic resources.

The Desert LCC brings together resource managers from throughout the American Southwest and northern Mexico to sustain and protect native desert resources at a landscape level.

Salton Sea

The Region is actively engaged in collaborative efforts with stakeholders to provide technical expertise to help mitigate the Salton Sea's environmental decline. Reclamation holds title to approximately 90,000 acres of land under and adjacent to the Sea, and has maintained an interest at the Sea since it was designated as an agricultural drainage repository through Presidential declarations in 1924 and 1928.

The Salton Sea in southern California is fed by agricultural runoff and the New, Whitewater, and Alamo Rivers.

In FY 2015, the Region continued collecting quarterly water quality data at established sites on the Sea, contributing valuable information to a 16 year-long monitoring effort. We completed a comprehensive map depicting land ownership under and around the Sea through collaboration with the Bureau of Land Management and the Imperial Irrigation District. The map is one in a series of three high quality maps that depict current projects and the Sea's current and projected elevations.

In partnership with the U.S. Geological Survey, we developed an agreement to review and update bathymetric data to better project what lands will emerge from the Sea as it recedes. We also continued to support a geothermal desalination demonstration project which has the possibility of being a viable method for Salton Sea management.

A Salton Sea program manager joined the Region's staff in FY 2015 to formalize our involvement in the State of California's efforts to develop a Salton Sea Management Program and to obtain funding for its implementation. The program manager provides technical expertise and other support to the State and other stakeholders. The Region will continue to remain actively engaged in efforts to address emerging issues and concerns at the Sea.

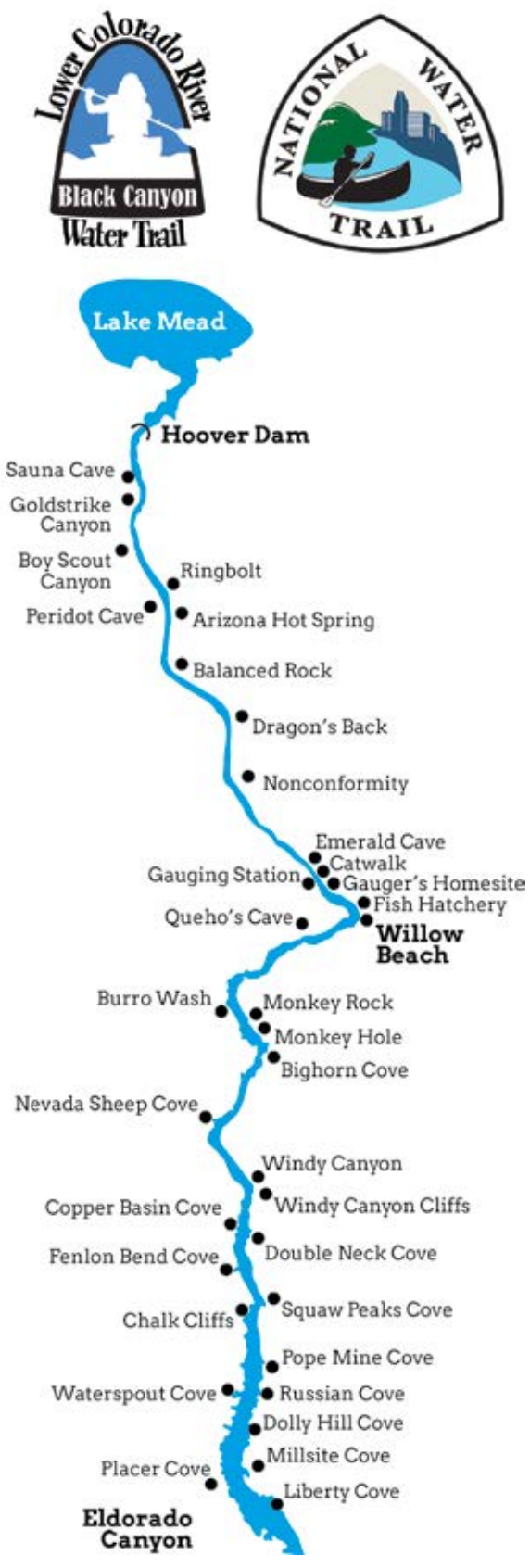
Recreation

Regional projects throughout the Southwest provide substantial year-round recreational opportunities, generally through partnerships with state, local, public and private entities and other federal agencies.

A new recreational opportunity was created in FY 2015, when 30 miles of the Colorado River below Hoover Dam were designated a "National Water Trail." A "water trail" is a marked route on a navigable waterway such as a river, lake, canal or coastline for people using small non-motorized boats such as kayaks, canoes, rafts, or rowboats. This is Reclamation's first water trail, the first water trail in the Southwest, and the first water trail to traverse a desert. We are now working with the Black Canyon Water Trail partnership to develop a user's guide, and to extend the trail downstream to Davis Dam, further connecting it to other outdoor recreational sites.

The Colorado River Heritage Greenway Park and Trails, an "America's Great Outdoors" project near Laughlin, NV and Bullhead City, AZ, is another developing recreational project. A two-mile long trail along the river links these communities to the Lake Mead National Recreation Area. Additional trails associated with the project offer equestrian and hiker opportunities to view the river and explore the desert landscape. Plus, planning partnerships are ongoing to develop trails along the Central Arizona Project canal in southern Arizona as part of the Sun Corridor Trail System that links together several regional trails in the Southwest.

In FY 2015, we also continued a long-standing partnership with the Bureau of Land Management on the Lake Havasu Fisheries Improvement Program, which enhances sport fishing habitat in that reservoir. We continued to partner with other entities on the development and management of the Yuma East Wetlands project, which provides cultural preservation, low-impact recreation, eco-tourism and environmental education near Yuma, AZ. We also redesigned, with enhanced accessibility and energy saving features, the Lake Pleasant Regional Park Desert Outdoor Visitor Center northwest of Phoenix, AZ. This Center provides outdoor education opportunities to more than 20,000 youths annually.



The Black Canyon Water Trail offers visitors opportunities to explore a variety of cultural and natural resources downstream of Hoover Dam.

Helping Native American Tribes, Nations & Communities

There are 61 federally recognized tribes in the Lower Colorado Region. The Region provides financial and technical assistance to a number of these tribes to develop their water resources, facilitate self-sufficiency, and help fulfill Reclamation's trust responsibilities.

In FY 2015, we awarded $1.2 million for drought-related activities to five tribes, or about 30 percent of the $4 million made available by Reclamation for this purpose. In addition, we provided $433,400 in technical assistance funding to aid various tribes with water management activities on their reservations.

La Jolla Indian Tribe members examine a weir on their nearly 10,000-acre reservation in southern California. An emergency drought project funded by Reclamation successfully enhanced the Tribe's ability to collect surface water.

Regional staff also participated on one Federal Assessment Team, seven Federal Negotiation Teams, and six Federal Implementation Teams that are involved in Native American water rights settlement activities.

We are responsible for implementation of the Arizona Water Rights Settlement Act, the Gila River Indian Community Water Rights Settlement Agreement, the Southern Arizona Water Rights Settlement Act, and the White Mountain Apache Tribe Water Rights Quantification Act. In FY 2015, staff worked closely with the corresponding tribes and non-Indian settlement partners on design and construction of water infrastructure, environmental compliance, water resource planning, and related water and land acquisition activities related to the various water rights settlements. We also provided a significant amount of technical assistance to Arizona tribes without water settlements including water management planning, and pre-construction activities for Central Arizona Project water distribution systems.

The Bill Williams River Water Rights Settlement Act was also signed into law in FY 2015, providing significant benefits and security for a portion of the Hualapai Tribe's water rights. We also executed the 2015 Gila River Indian Community Annual Funding Agreement to continue construction of the Pima-Maricopa Irrigation Project and rehabilitation of the San Carlos Irrigation Project.

We awarded seven contracts totaling $38.7 million under P.L. 93-638, the Indian Self-Determination and Education Assistance Act. This Act supports tribal sovereignty, self-governance, and self-determination efforts and encourages tribes to assume management of eligible programs.

Being Safe and Secure

A primary focus of the Region is to ensure its employees, its visitors, and its facilities are safe and secure. This is accomplished through continuous focus on security and law enforcement, maintenance of our dams and other facilities, and human safety and occupational health.

Security and Law Enforcement

Security personnel and a Bureau of Land Management Special Agent assigned to the Region work closely with the Hoover Dam Police Department (HDPD) and other Reclamation and non-Reclamation entities to assess security needs and develop or improve threat detection, identification, and response methods. They also ensure Regional facilities are regularly monitored.

In FY 2015, we completed an annual *Facility Security Readiness Survey Guide* for use by all Regional facilities on an annual basis. At the request of the Bureau of Indian Affairs, we performed a comprehensive security review of their Headgate Rock Dam and Powerplant. Regional staff also performed a major security issue evaluation of select dams within the Region, and completed Reclamation's first underwater tactical study.

Police have been a presence at Hoover Dam since its construction. This photo shows the acting Chief Ranger and his sergeant in 1933.

The world-renowned Hoover Dam is protected 24 hours a day, 365 days a year by the HDPD, Reclamation's only police force. This force, which has been present at the dam since the early 1930s, provides security and law enforcement for the dam and its surrounding security zone.

Hoover Dam Police patrol the lands and waters surrounding the dam, ensuring the safety of visitors and staff 24/7.

Maintaining Safe Infrastructure

Regional engineers and other staff work to ensure the Region's dams and other facilities operate safely and reliably. To reduce potential risk, we assess structural and performance reliability and implement necessary modifications using state-of-the-art design and construction practices.

The Safety of Dams program helps protect the downstream public by periodically reviewing the long-term stability and physical integrity of each Reclamation dam.

Reclamation owns 15 dams in the Region, which include dikes at Brock Reservoir and on the CAP. Each year, these structures are given a Facilities Rating Reliability score of 'Good', 'Fair', or 'Poor'. This rating is based on points earned for a variety of Safety of Dam and operations and maintenance factors. In FY 2015, 14 of our 15 dams received a rating of 'Good' and one received a rating of 'Fair', an improvement over prior years, demonstrating the program's effectiveness.

Comprehensive Reviews (CRs), performed every eight years, include a detailed on-site physical examination, and design, geology, hydrology, and seismology evaluations. Two were completed in FY 2015.

Periodic Facility Reviews (PFRs), which are performed every eight years, midway between CRs, involve a detailed on-site examination of the structures. Two were completed in FY 2015. Annual site inspections are also conducted in those years in which there are no CRs or PFRs, and each dam undergoes a visual inspection at least quarterly to supplement the formal inspections.

Several areas at dams or other facilities are considered "inaccessible" because they cannot be accessed by traditional means. Using drop cameras, remotely operated vehicles, or rope access and dive techniques, the Region's teams of uniquely skilled individuals regularly inspect these areas to assess structural soundness and identify maintenance needs. Our dive and rope access teams also support other federal agencies in inaccessible features inspections as this capability is somewhat unique in the federal government.

The Region's Rope Access Team ensures safe procedures are followed when inspecting facilities with regular training sessions that emphasize proper hazard assessment and rescue and emergency response services.

Under our Review of Operations and Maintenance (RO&M) program, we periodically review and examine other structures, including canal turnouts and check structures, bridges, siphons, and pipelines, to ensure they are operated consistent with Standing Operating Procedures (SOPs) and to identify maintenance deficiencies or safety concerns.

Inspections of Reclamation-owned facilities include extensive on-site examinations, as seen at Mormon Flat Dam on the Salt River in AZ.

Issues identified in the RO&M process are used to develop preventive maintenance programs, identify actions to improve operations, and create/update SOPs related to maintaining structural, electrical and mechanical equipment. The examinations ensure each facility is safely operated and maintained to reduce in-service failures and unplanned outages and to protect the federal investment. In FY 2015, 15 RO&M inspections were performed on projects in Arizona.

Emergency action plans (EAPs) and emergency management exercises are important to maintain the safety of our dams. EAPs are annually updated for all dams that could cause economic damage or loss of human life if they failed. Tabletop and functional exercises are performed for each dam every three and six years, respectively. Tabletop exercises involve an informal discussion of actions to be taken in an example emergency situation. Functional exercises practice a timed, emergency response to a simulated incident.

A Safe Workplace

Our Region's commitment is "Every employee, contractor, and visitor arrives at work safely, conducts business safely, and returns home safely every day."

As our program has transitioned from primarily construction to operations, maintenance and management of facilities and other related resources, our Safety and Occupational Health Program has also evolved.

In FY 2015, in addition to ongoing activities such as enhancing safety awareness through safety days, participating in local safety committees, and publishing weekly safety articles in the Regional newsletter, we increased safety staff Region-wide and formed a Region-wide Safety Advisory Committee.

The Committee's goal is to continue to foster a climate where safety and productivity are equally important goals for employees in accomplishing their work. By improving communication, safety issues common across the Region are being identified and resolved.

The Yuma Area Office's Safety Day highlights personal and workplace safety, offering employees familiarization and hands-on experiences with common safety equipment and protective products.

In addition, 35 Regional employees, supervisors, and managers participated on all 21 Action Teams established by Reclamation in 2014 to improve its safety culture. Many of the recommendations developed through this effort will be implemented in the Region beginning in FY 2016.

The Human Element

The Lower Colorado Region's programs could not be accomplished without a dedicated, diverse workforce. Every employee contributes to our program accomplishments, whether they work in Nevada, Arizona, or California. Every day, at every level, we rely on them and their commitment to public service to achieve our goals and objectives.

We employ many strategies to recruit, develop, and retain a skilled and diverse workforce. Our professional Equal Employment Opportunity and Human Resources staffs conduct various activities to recruit and train people who can perform the work we do now and will do in the future. These activities include participating in job fairs, visiting college campuses, and other outreach and recruitment efforts. In FY 2015, we participated in 39 career fairs that reached nearly 1,200 potential job applicants.

We also train our existing employees so they can maintain existing skills and develop new skills needed to successfully accomplish our programs now and in the future.

In FY 2015, we implemented a new Leadership Development Program to help our employees cultivate the skills they need to attain more challenging and responsible positions, including top leadership positions. Certified consultants provide the training for the higher-level grades, and the program also prepares employees for the federal Senior Executive Service.

In Boulder City, NV, new employees are sworn into federal service as part of their orientation.

Workforce Snapshot

TOTAL EMPLOYEES
799

- 519 male
- 280 female

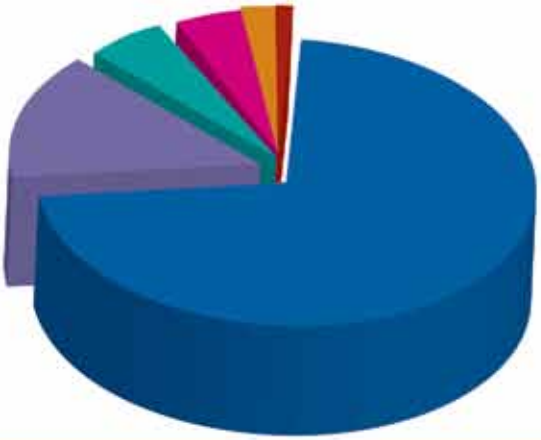
65% 35%

GENERATIONS (AGE GROUPS)

Traditionalists (1922 - 1943)	6
Boomers (1943 - 1960)	227
Generation X (1960 - 1980)	424
Millennials (1980 - 2000)	142

DIVERSITY

- 582 White
- 117 Hispanic
- 38 Asian/Native Hawaiian
- 35 Black
- 18 American Indian
- 9 Two or more races



EDUCATION

High school or equivalency	798
College degrees	410

Information current as of September 30, 2015

A Youthful Perspective

As we look to the future, we know it is important to integrate younger workers into our workforce. We continue to create opportunities for young people to experience potential federal careers, with us or with other agencies. Each of our outreach efforts promotes the Region and the Bureau of Reclamation as an employer of choice. During FY 2015, we participated in 60 activities, reaching nearly 19,000 youth.

The Lower Colorado Region Youth Council was established as a pilot program designed to introduce Reclamation's mission and careers to students with an interest in science, technology, engineering, and mathematics (STEM). The Council enables them to share their perspectives on our operations and activities.

We also provided educational opportunities to students from throughout the United States through such activities as the Las Vegas Science & Technology Expo, which reached an estimated 7,200 students over a one-week period. Approximately 1,200 students participated in the Region-supported Southern Nevada Region Student Model Bridge Competition and more than 5,300 youth enjoyed Hoover Dam School Tours in FY 2015. Southern Nevada's annual Science Bowl, sponsored by Reclamation, was also a featured event.

Regional staff speak at schools in their local areas, presenting information about the Region and its work, and sharing knowledge about careers and specific jobs that support Reclamation programs. In FY 2015, an estimated 3,600 youth, ranging from elementary to college level, heard presentations on a variety of topics including water operations, engineering, biology, and Geographic Information Systems.

Summer student hires tour Hoover Dam.

Students get an overview of water operations in the River Operations Center in Boulder City, NV.

Connecting to the Outdoors

As a manager of many natural resource areas throughout the Southwest, the Region also encourages youth participation in outdoor activities.

In FY 2015, the Region conducted two "Catch A Special Thrill," or C.A.S.T., events. As the fiscal year began, 26 children and families and 82 volunteers participated in an event at Lake Mead. In April 2015, 38 participants, 48 boat captains, and about 115 volunteers enjoyed an event at Lake Pleasant in Arizona.

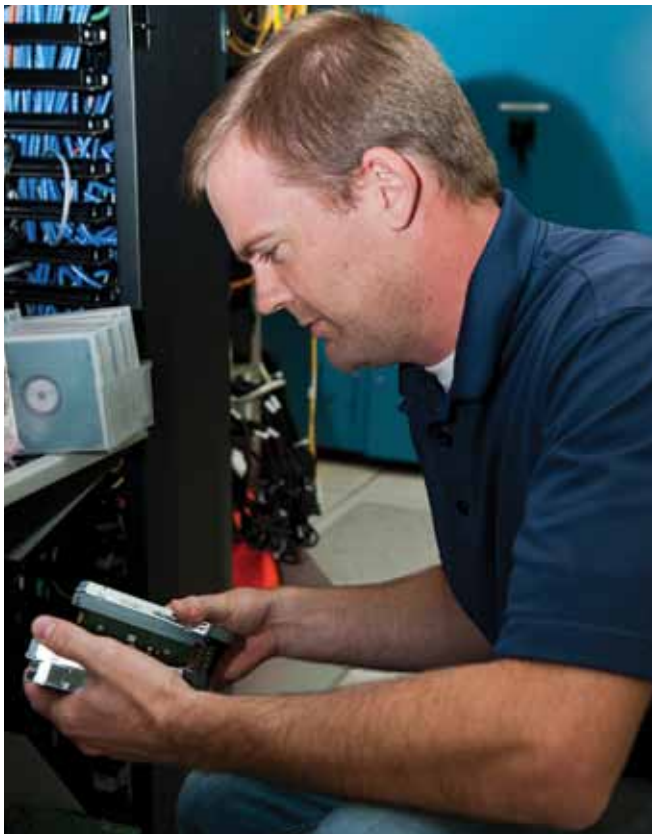
Reclamation has been a partner in the C.A.S.T. for Kids Foundation since 1992. This charity joins volunteers and special needs individuals for a day of fishing, allowing children and their caretakers to enjoy a day of outdoor experiences. The program also increases community awareness of disabled and disadvantaged children, and teaches an appreciation for natural resources.

Regional staff also participated in other activities that connect youth to the outdoors including Nevada's Free Fishing Day, the Department of the Interior's 50 Cities Outreach Event, a YMCA outing on Lake Mohave, and several public lands day events.

Anglers and volunteers all enjoy fishing on Reclamation reservoirs during C.A.S.T. for Kids events. The Lake Pleasant event in central Arizona attracts hundreds of participants each year.

At a public lands day event in Laughlin, NV, participants of all ages enjoy learning about the native species along the Colorado River from an expert with Reclamation's Lower Colorado River Multi-Species Conservation Program.

Nevada's Free Fishing Day at a pond at Veteran's Memorial Park in Boulder City, NV, draws local families and volunteer sport fishing enthusiasts to share in this outdoor experience.



Information technology professionals ensure communications and networks throughout the Region are reliable and secure.

Program/Project Support

Without the people who provide program and project support, none of the many activities we undertake could be successfully accomplished.

For example, Information Technology (IT) employees throughout the Region enhance and improve the transparency of our IT systems while ensuring those systems are not directly accessed and sensitive information is not being compromised. They also respond daily to service requests, keeping the computer systems we depend on fully functional so we can accomplish our work.

Other staff ensure the buildings in which we work, whether they are historic structures, as many in the Region are, or state-of-the-art LEED (Leadership in Energy and Environmental Design) certified, are maintained to provide a safe and habitable workplace for our employees as well as for the many entities who visit us each day.

Canal service roads, levees, groundwater wells, culverts, bridges and many other structures found on the projects we manage also must be, and are, maintained to ensure they are performing safely. Many different types of heavy equipment, off-road vehicles, passenger vehicles, and even boats must be cared for each year as well. And, throughout the Region's operating area, we manage or oversee the the public lands on which our projects are located.

A significant program support accomplishment project in FY 2015 was the signing of a contract with the City of Boulder City to tie into a "gray" waterline the City uses to irrigate a park. We will use this recycled water on the lawn in front of the historic building in Boulder City that housed Hoover Dam contractor personnel and Reclamation staff during the construction of the dam and today houses the Regional Director and other staff. This activity will reduce our water costs and support sustainability initiatives.

Building 1400, one of our Boulder City, NV, offices, received Platinum certification from the U.S. Green Building Council under its Leadership in Energy and Environmental Design, or LEED, sustainability rating system.

Looking Ahead

Managing the resources and infrastructure of the lower Colorado River system in an efficient and cost-effective manner will continue to be complex and challenging. Planning for the potential of enduring drought and enhancing our binational cooperation will be in the forefront of our efforts in FY 2016 and beyond.

Planning for Drought

The present drought in the Colorado River Basin began in 2000 with CY 2000-2015 marking the driest 16-year period in 110 years of record-keeping, and among the lowest in 1,200 years according to tree-ring records. Fortunately, the Basin reservoir system was nearly full at the start of this drought; however, reservoir storage has declined to approximately 50 percent capacity. This puts Lakes Powell and Mead at an increased risk of reaching critical low elevations should the drought continue. We are collaborating with the seven Colorado River Basin States and other stakeholders to develop a drought contingency plan that, when implemented, would add to measures adopted in 2007.

In FY 2015, we implemented the Pilot System Conservation Program (PSCP) and signed a Lower Basin Pilot Drought Response Memorandum of Understanding (MOU). The PSCP was developed to fund new efforts to save water in Lakes Powell and Mead for the benefit of all Colorado River system users. The program, a partnership among Reclamation and four municipal water agencies, is providing $11 million to fund temporary, voluntary programs to conserve or reduce the use of Colorado River water. Of this amount, $8.25 million was awarded to projects in the Region that are estimated to conserve approximately 60,000 af of Colorado River water in Lake Mead.

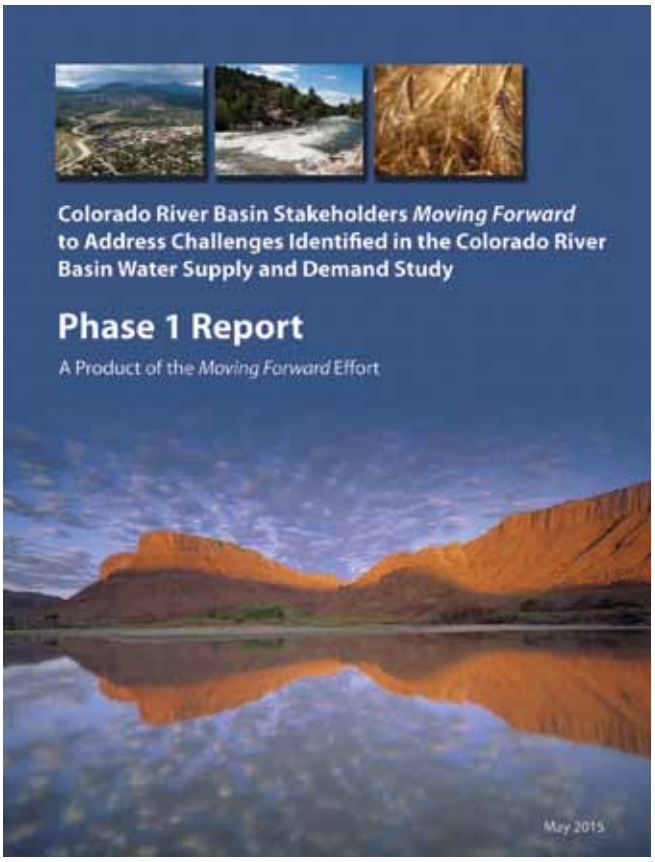
The impact of drought is visible in this photo of Lake Mead's Boulder Beach. The growing shoreline can be seen in the middle of the photo, with relocated marinas in the distance. The lake reached record lows in June 2015, more than 150 feet below the highest level reached in 1983.

Under the MOU, signed in December 2014, we are working with the Lower Basin States and several municipal water agencies to take voluntary actions to retain between 1.5 and 3.0 maf of water in Lake Mead by the end of 2019. Three million af would raise Lake Mead's water level by about 35 feet. The MOU partners further agreed to an interim target of 740,000 af by the end of 2017, of which the Region's share is 50,000 af.

Toward this goal, the Region committed $8.6 million to plan and begin implementing actions to increase lower Colorado River system operational efficiency. Also, under an agreement with the Ft. McDowell Yavapai Nation in Arizona, Reclamation will provide funding to help the Nation develop local groundwater supplies. In exchange, the Nation will not take about 14,000 af of their 2016 entitlement, leaving it in Lake Mead. Plus, through an agreement with the Yuma County Water Users' Association, we are funding upgrades to aging components of their water delivery system. The upgrades are expected to be complete in FY 2016 and are estimated to conserve approximately 10,000 af annually.

Also, the Region and the Arizona Department of Water Resources created the Bypass Flows Workgroup made up of water users and environmental organizations with crucial knowledge of the lower Colorado River system's interdependencies and needs. Its purpose is to recommend Reclamation actions to reduce system losses resulting from pumped agricultural drainage water that currently bypasses the Colorado River and is not included in water deliveries to Mexico because of its salinity.

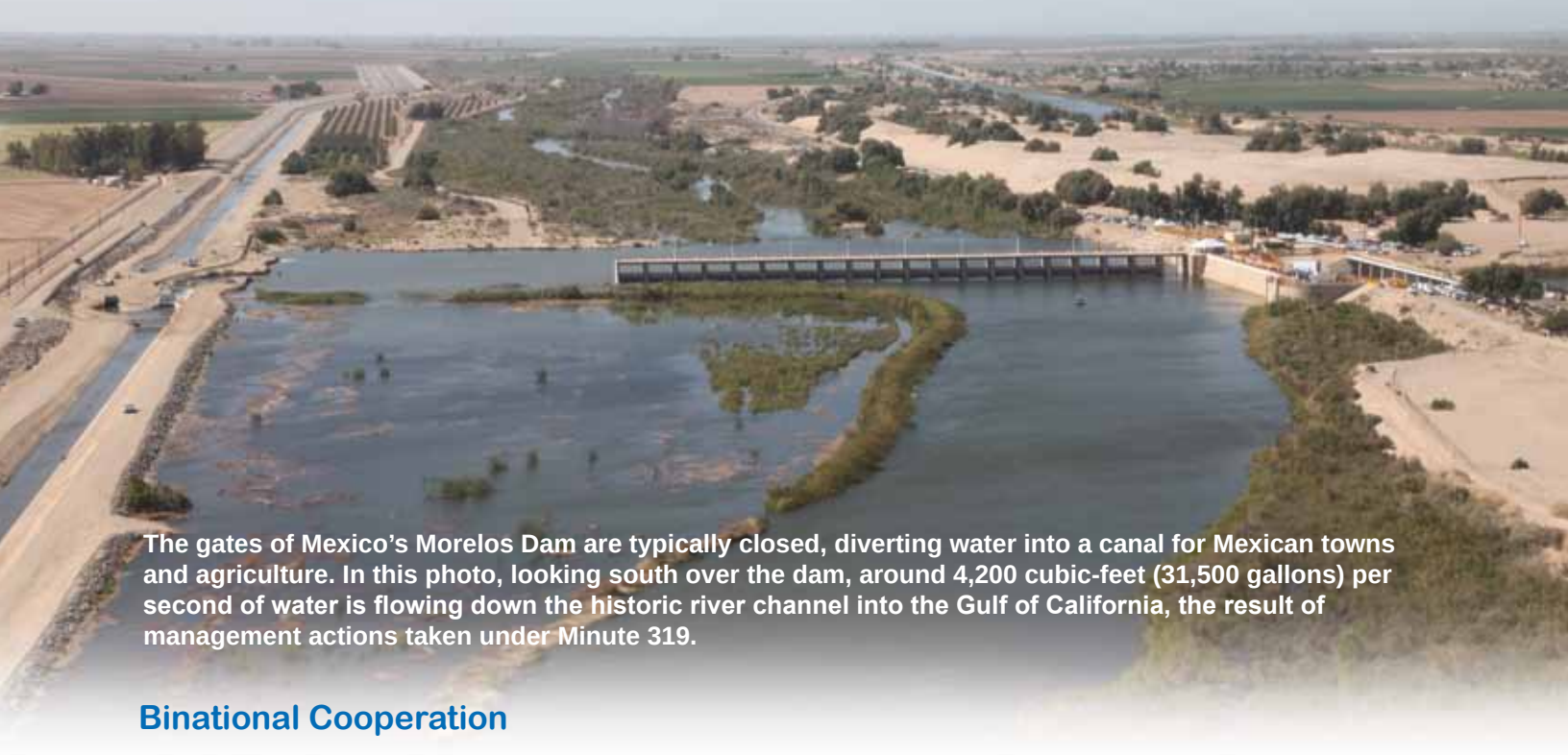
Parallel to these efforts, we are also responding to longer-term water management challenges within the Colorado River Basin. Projected long-term water supply and demand imbalances were identified in the 2012 Colorado River Basin Water Supply and Demand Study. A response to these imbalances, known as the *Moving Forward* effort, builds on the next steps identified in the



Three workgroups representing federal, state, Tribal, agricultural, municipal, hydropower, environmental, and recreational interests, more than 100 individual stakeholders in total, contributed to the Colorado River Basin Study *Moving Forward* report that was released in May 2015.

Study. The goal of the effort is to identify actions that can be taken to address these projected imbalances, and that have broad-based support and provide a wide range of benefits.

The *Moving Forward* effort expands the Study's broad, inclusive stakeholder process, and is being conducted in a phased approach. Multi-stakeholder teams formed for Phase 1 focused on water conservation, reuse, and environmental and recreational flows. The Phase 1 Report, published in May 2015, documents the teams' activities and outcomes, and identifies opportunities for potential future action in each area. Phase 2, which will begin in FY 2016, will build on the proposed opportunities and actions from Phase 1, and will target several pilot projects to be considered for implementation.



The gates of Mexico's Morelos Dam are typically closed, diverting water into a canal for Mexican towns and agriculture. In this photo, looking south over the dam, around 4,200 cubic-feet (31,500 gallons) per second of water is flowing down the historic river channel into the Gulf of California, the result of management actions taken under Minute 319.

Binational Cooperation

The Region, through the International Boundary and Water Commission, has addressed issues of mutual concern regarding Colorado River operations and management with Mexico since the ratification of the 1944 Water Treaty. The Treaty allocated 1.5 maf annually of Colorado River water for delivery to Mexico, and provided for, among other things, the addition of implementing agreements known as "minutes," of which there are now more than 300.

In FY 2015, the U.S. and Mexico formed a binational negotiation team to begin developing the next proposed minute. The new agreement is intended to extend the proactive management measures adopted in its predecessor, Minute 319, to share and conserve water in the United States and Mexico during both high and low reservoir conditions on the Colorado River. The proposed Minute also envisions water conservation and exchange agreements while respecting the operational constraints and ecological health of the entire Colorado River Basin. The goal is to draft this Minute by mid-2016 and execute it by the end of the year.

Also in FY 2015, in accordance with Minute 319, a coalition of Reclamation and U.S. and Mexican entities issued an initial progress report on what was considered the first international instream environmental flow in the world: a two-month, 105,068 af pulse flow from Morelos Dam in 2014 that connected the Colorado River to the Gulf of California for the first time since the 1990s. The report shows that new native tree growth has occurred in the riverine corridor.

A binational monitoring program is continuing to collect high-quality data to assess long-term hydrologic and biologic responses to the pulse flow. In addition, non-governmental organizations committed to providing an additional 52,696 af of water over the term of Minute 319, and they have made substantial progress toward fulfilling that commitment.

Also, as a part of Minute 319, the Region received funding in FY 2015 from three Lower Basin water districts to help Mexico line a portion of its Revolución Canal. Construction of this project is anticipated to begin in 2016 and when completed, the project will conserve an estimated 30,000 af of water per year. The districts will receive a portion of the conserved water in exchange for the funding.

At the end of CY 2015, Mexico had a balance of about 230,000 af of deferred water left in Lake Mead, pursuant to Minutes 318 and 319.

The waters of Lake Mohave present a stark contrast to the surrounding desert, demonstrating the significance of Reclamation's water resources projects in this part of the West.

In Summary…

The Lower Colorado Region enjoyed many program accomplishments in FY 2015. Our successes arise from the dedication of our employees and the strong, collaborative relationships and partnerships we have developed throughout the Region.

The future promises to bring many complex challenges. These include mitigating the impacts of on-going drought and a changing climate, operating and maintaining our aging infrastructure, continuing to improve operational efficiencies, planning and developing new and more reliable water supplies, and ensuring stewardship of our environmental and cultural resources.

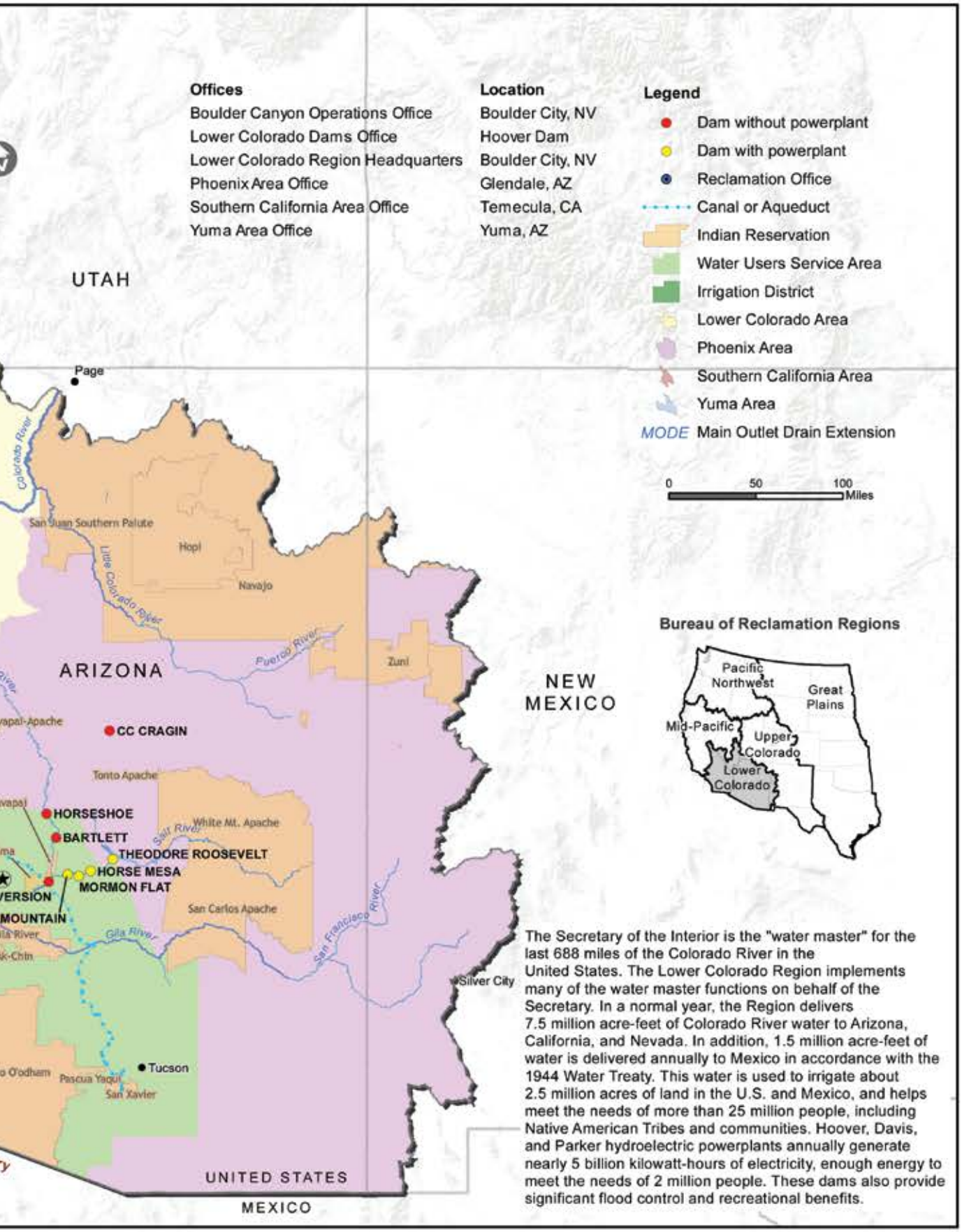
Finding collaborative, cost effective solutions to these challenges won't be easy. But we are committed to finding and implementing those solutions in partnership with our many interested and involved stakeholders. In short, we are committed to doing our utmost to meet the needs of future generations.

Thank you for joining us in this review of the past year. We invite you to learn more about us, and about our programs, by visiting our website at www.usbr.gov/lc for more information.

Supplemental Materials

Colorado River

Regional Map



The Secretary of the Interior is the "water master" for the last 688 miles of the Colorado River in the United States. The Lower Colorado Region implements many of the water master functions on behalf of the Secretary. In a normal year, the Region delivers 7.5 million acre-feet of Colorado River water to Arizona, California, and Nevada. In addition, 1.5 million acre-feet of water is delivered annually to Mexico in accordance with the 1944 Water Treaty. This water is used to irrigate about 2.5 million acres of land in the U.S. and Mexico, and helps meet the needs of more than 25 million people, including Native American Tribes and communities. Hoover, Davis, and Parker hydroelectric powerplants annually generate nearly 5 billion kilowatt-hours of electricity, enough energy to meet the needs of 2 million people. These dams also provide significant flood control and recreational benefits.

Lower Colorado Region Employees as of September 30, 2015

Angela Adams • Kelli Adams • Pamela Adams • Megan Allen • Randall Allman • Darin Alm • Aaron Alton • Jesus Alvarado • Thomas Alvarado
Dana Anat • Cort Ancman • Mark Anders • Jeffrey Anderson • Laken Anderson • Tracy Anderson • Valerie Anderson • Angela Aniasco
John Arcenas • David Arend • Michael Arend • William Arndt • Jessica Asbill-Case • Andrew Ashby • Douglas Ashford • Patrick Atkinson
Stephen Atkinson • Elizabeth Bailey • Brian Baker • Micheal Baker • Scott Baker • Derek Ball • Dianne Bangle • Michael Banting
Antonio Baquera • John Baribault • Todd Baribault • Amber Barlow • Robert Baron • Brandon Barrow • Gary Bartusch • Thomas Basinger
Benjamin Baugh • James Beadnell • Richard Beard • Gabriel Beck • Christopher Becks • Bryan Bedoya • Dustin Bedoya • Sheldon Bedoya
Joseph Beebe • Stephen Belew • Bradley Belford • Alexander Belous • Fernando Beneduce • Michael Bernardo • Andrew Berryman
Justin Bicknell • Joseph Billerbeck • Michael Billo • Donald Black • Kevin Black • Diana Blake • Becky Blasius • Douglas Blatchford
Thomas Bommarito • Cristine Bosselman • Sara[illegible] Bousquet • Britt[illegible] Bowen • James Bowen • Raymond Boyce • David Boyd • Terry Boyer
William Boyle • Zane Boyster • Nicky Bradford • Amanda Bradley • Jamila Bridges • Aaron Brodhacker • Desmond Brooks • Jeremy Brooks
Nathan Brooks • Aaron Brown • April Brown • Jacqueline Brown • [illegible]enell Brown • William Brunn[illegible]ga • Russell Bryant • Arthur Buchanon
Michael Buckley • Sean Bucknam • Charles Bullen • John Bun • Dani[illegible] Bunk • D[illegible]nis Burgett • James Burke • Scott Bush • Robert Butler
James Byrne • Henry Cabrera • Claudia Cain • Katherine Calagua • Russell Callejo • Robert Callen-Young • Tracy Callen-Young • Allen Calvert
John Campers • Edwin Camus • Todd Caperon • Linda Carbone • Rudy Cardona • Margaret Carlberg • Denise Carrell • Robert Carrell
Jacqueline Carrera • Reba Carter • Eric Carty • Arturo Carvajal • Katrina Castaneda • Megan Castaneda • Peter Castaneda • Charles Castle
Debra Casto • Kyle Cavalier • Donna Cerbasi • Paula Cerda • Jennifer Champlin • Todd Chapman • Gustavo Chavarria • Christina Chavez
Joshua Chavez • Mary Chavez • Wade Chenoweth • Thad Christensen • Riva Churchill • Alan Clabeaux • Robert Clark • Travis Clark
Robert Clarkson • Howard Clayton • Leslie Cleveland • Dana Coleman • Kevin Collins • Maria Colon • Denise Colwell • Kelly Conner
Manuel Contreras • Ronald Conway • Mark Cook • Keith Cooper • Myra Cordero • Lorraine Coroneos • Henry Corretjer • Dennis Cothran
Ronald Cottrell • Daniel Cowden • Michael Craig • Michael Cramer • David Crandall • Kenneth Crane • Archibald Crawford • Gilberto Cristobal
James Crocker • Maureen Cronin • Lisa Cronister • Octavia Cross • Ronald Crouch • Fred Croxen • Tyler Crubaugh • Joseph Crugnale
Drake Cruz • Luis Cruzado Hernandez • Andrew Cummins • Amber Cunningham • Eric Curtis • Meller Dacayanan • Jessica Damian
Michael Daniel • Allison Danner • Eric Darby • Katherine Darichuk • Stephen Davidson • Brian Davis • Janard Davis • Jeannette Davis
Mickey Davis • Dale Dawson • Robert Dazzio • Calvin Dean • Nicholas Decorse • Carletta Degroat • Peni-Nicole Dela Pena • Patricia Delrose
Aurora Demesa • Julian Desantiago • David Deyle • Preston Dickens • Corey Dickson • Nancy Didonato • Leslie Dieguez • Deanna Diehn
Thomas Dimmick • Jeremy Dodds • Christopher Dodge • Jesucita Doering • John Doering • Randy Donnarumma • Joseph Donnelly
Bradley Doss • Robert Dubois • James Duffy • Frederick Dunn • Colleen Dwyer • Aaron Dykstra • Mark Eagleson • Richard Eastland
Chase Eastman • Rebbecca Ebarb • Christopher Edington • Allen Emrick • Susan Erickson • Phillip Ervin • Michelle Escobar • David Eskildsen
Emmanuel Espinoza • Joseph Espinoza • Nancy Espinoza • Juan Esquivel • Ramon Estrada • Sandra Eto • Carol Evans • Nicole Everett
Richard Faber • Melissa Fairchild • Michael Fairchild • Joseph Falardo • Danny Falcon • Steven Farinella • Richard Faucher • Paul Felker
Michael Findley • Faunta Finley • Andrea Finnegan • Robert Firasek • John Fitzsimmons • Cynthia Flores • Maria Forbes • Scott Foster
John Franklin • Richard Fraser • Karla Fritchman • Terrance Fulp • Owen Fulsome • Jason Fyffe • Meagan Fyffe • Anthony Gagajewski
Jeannette Gambone • Glenn Garcia • Peter Gardner • Shaoru Garner • Gregg Garnett • William Garrity • Jorge Garza • Nathaniel Gee
Christa Gerber • Maria Germain • David Gifford • Roy Given • Hazel Gomez • Susana Gomez • Joseph Gonzales • Peter Gonzales
Vivian Gonzales • George Gonzalez • George Gorum • Leslie Goudie • Patricia Gower • Joseph Grabish • Joseph Graef • Kimberly Graham
David Greene • William Greer • Russell Grimes • Suzanne Grinsted • Raedell Grosvenor • Chas Raymond Gruber • Michael Guerrissi
Keith Guidry • Corey Gumbert • David Gunderson • Reymundo Gutierrez • Shannon Gutierrez • Juan Guzman • Aaron Haack • Shawn Haaksma
Richard Haas • Connie Hack • Michael Hack • Josiah Haig • Harry Hairston • Alexis Hall • Clint Hall • Geoffrey Hall • Eve Halper
John Hamamoto • Christopher Hamilton • Shanon Handley • Carol Hansen • Christopher Hanson • Peter Harbauer • Daron Hargadine
Mark Harris • Jackie Hartman • Carla Hastings • Mitchell Haws • Cristina Hayden • Charles Hays • Nicholas Heatwole • Elizabeth Hedrick
Janice Hellen • Douglas Hendrix • Laura Henning • Jeffrey Henshaw • Robert Henslee • Jessica Herndon-Ladewig • Dalenna Hessling
Patricia Hicks • Athena Christine Higgins • Elizabeth Higgins • Julian Higuera • Hal Hill • Holly Hill • Jeffrey Hill • Leroy Hill
Brandon Hilliard • Denise Hinds • Mary Hinson • William Hodges • Michael Hollins • Teresa Holm • Michael Holmes • Nanette Holmes
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Stuart Howell • Marilyn Hudson • Steven Hvinden • Gail Iglitz • Michael Igoe • Michael Ireland • Kenneth Isakson • Joseph Israel
Edward Jackson • Michael Jackson • Patrick Jacobs • Vikki Jacobs • David Janda • Roxanna Jarred-Mccue • Maria Elisa Jaurigue • Lauren Jelinek
Colleen Jensen • Carly Jerla • Bridget Johanning • Brittany Johnson • David Johnson • Destiny Johnson • Genevieve Johnson • Robert Johnson
Robert Johnson • William Johnson • Jessie Jones • Patricia Jones • Gary Jordahl • John Jorgenson • Christopher Joyce • Joseph Kahl
James Kangas • Larry Karr • Leevonnie Kates • Geoffrey Keller • Timothy Kelly • David Kent • John Key • Rebecca Key • Janet Kirsch
Lesli Kirsch-Burke • Brian Kitt • Ronald Knight • James Knowles • Sonja Kokos • Gary Krzisnik • Donna Krzystek • Susanna Kuettel
Kurumi Kuroda • Ricky Labistre • Matthew Lafave • John Lakovich • Vincent Lammers • Douglas Lancaster • Norma Lancaster • Jeffrey Lantow

Fredrick Leavitt • Jose Lee • Nathan Lehman • Joseph Lejeune • Michael Lendway • Nathan Lenon • Steve Leon • John Leslie • Susan Levin
Cecil Levy • Desi Lewis • Ingrid Lewis • Robert Lewis • Eric Liming • Kevin Lister • Gordon Loehr • Elijah Long • Eric Loomis • Tracie Lopata
Chris Lopez • Iris Lopez • Lonnie Lopez • Marteen Lopez • Shannon Lynch • Shawn Lynch • Jeffrey Lynn • Frank Macaluso • Michael Macosko
Jason Magdaleno • Toyya Mahoney • Karen Majewski • Keshaw Mallick • Olivia Manary • Kevin Margetts • Lawrence Marquez • Thomas Marsh
Aaron Marshall • Bill Martin • William Martin • Joe Martinez • Ruben Martinez • Michael Massey • Doreen Masterson • Paul Matuska
Gordon Matzinger • Marc Maynard • Brittany McAleese • Bruce McBride • Donald McBride • Victor Mccall • Charles McCaughey
Jennifer McCloskey • Marc McClung • Jeffrey McCormick • Kevin McDowell • John McElrath • Richard McEntee • John Mcglothlen
Cynthia McLeod • Scott McLeod • Lisa Mcmanus • Heidi McMaster • Douglas McPherson • Cora McReaken • Julito Mejia • Julie Merchen
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Raymond Miller • Jeff Milliken • Joanne Miravete • Randall Miskowic • Catherine Mohar • Francis Mones • Ann Montana • Dean Montgomery
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Christopher Mundson • Terence Murphy • Sheldon Murray • Kimberly Musser • Mario Najarro • Rebecca Nance • John Neader • Douglas Neitzke
Beverly Nelson • Jon Nelson • Kaylee Nelson • Kelli Nelson • Willie Nelson • Jason Nemeth • Marcia Nesby • Dave Nesmith • Chau Nguyen
Hong Nguyen-Decorse • Thomas Nichols • Ana Nicholson • Narmo Nieves • Whee-Anne Nogra • Michael Norris • Derrick North
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Andrea Ondreyco • Sharon Opfermann • Enrique Ornelas • Alejandro Orosco • Joseren Orsini • Robert Ortega • Joseph Ostrowski
Robert Owen • Thomas Pafundi • David Palumbo • Diana Panchal • Brenda Paquette • Jared Parry • Christopher Patane • Kenneth Patterson
Gregory Paulson • Linda Paxton • Johnny Pearce • Devin Pearson • Allen Peevy • Corey Pemberton • Keven Peppers • Virginia Ann Marie Perez
Jarrett Peters • Russell Phelps • Kenneth Phillips • Robert Pich • William Pierce • Anna Pinnell • Jacob Piper • Luigi Plancher • Tracy Plathe
Lindsay Poggemeyer • David Polan • Steven Politsch • Christopher Pope • Michael Potter • Jason Potthoff • Michelle Pratt • Bradley Prudhom
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Maria Ramirez • John Rasmussen • Barbara Raulston • Stephen Redmond • Mary Reece • Adrianne Reed • Donald Reiff • Michelle Reilly
Amanda Repik • Anh Rhodes • Cindy Rice • Kieth Richard • H. Richardson • John Ricker • Adam Ricks • Billy Riley • Jeffrey Riley
Louis Rintoul • Erma Rivera • Fernando Rivera • James Roach • Michael Robinson • Christina Robinson-Swett • Jesus Robles • Jonathan Rocha
Deborah Rodriguez • Diane Rodriguez • Francisco Rodriguez • Manuel Rodriguez • Veronica Rodriguez • Eugene Rogers • Rebecca Rogers
Michael Rolfe • Nancy Rolfe • Maria Romasanta • Elsa Romero • Carolyn Ronning • Kevin Ronzheimer • Rosa Rosas • Jennifer Rottinghaus
Jennifer Rudd • Nathan Rudd • Sally Ruhnau • Jacqueline Runco • Damian Runge • Laura Sabin • Jonathan Sanchez • Jose Sanchez
Mary Sanchez • Anna Sander • Jeff Sanderson • Laura Sandor • Jason Sandoval • Noe Santos • Nicole Sapp • Jovito Saul • Theresa Saumier
Jolaine Saxton • William Schermerhorn • Jennalyn Schilke • Leonard Schilling • Michael Schultz • Nicholas Schultz • Joshua Schwab
Carrie Scott • David Scott • Drew Scott • Yvette Scott • Brian Scro • Margot Selig • Stephen Semeraro • Edward Seum • Ricardo Sevilla
James Seward • Wesley Shaw • John Shields • Dustin Shigematsu • Stephen Shiverts • Dennis Shotwell • Lisa Shourds • John Simes
Valerie Simon • Jonathon Sinclair • Robert Skordas • Mark Slaughter • Alexander Smith • Jeffery Smith • Jeneal Smith • Joshua Smith
Juli Smith • Rodney Smith • Ron Smith • Roselynn Smith • Roy Smith • Shawn Smith • Stanley Snow • Doreen Song • John Sorace
Brian Sorensen • Brandon Sparks • Terry Staggs • James Stauffer • Laura Steele • William Steele • John Steffen • Jessica Stegmeier
John Stemmer • Marianne Stemmer • Matthew Stemmer • Megan Stemmer • Shane Stemmer • Alexander Stephens • Amy Stephenson
Paula Stetka • Jerry Stewart • Kathleen Stewart • Larry Stewart • Richard Stewart • Robert Stewart • Thomas Stewart • James Stolberg
Jeffrey Stone • Faye Streier • Joseph Stubitz • Timothy Sullivan • Robert Swain • Bruce Swanson • Gregory Swanson • John Swatzell
John Swett • Katherine Swinn • Jason Takeshita • John Tarabilda • James Tate • Lisa Tate-Jones • James Taylor • Timothy Taylor
Chonette Taylor-Smith • Salvador Teposte • Ruth Thayer • Lori Thomas • Michael Thomas • Warren Thomas • Shawna Thompson • Shana Tighi
Glenn Timme • Kenneth Tindall • Virginia Toledo • Sean Torpey • Pedro Torres • Ronnie Torres • Deborah Tosline • Daniel Townsend
Andrew Trader • David Trimm • Jeremy Tripp • Tanya Trone • Phyllis Tsosie • Edith Tucker • Caireen Ulepic • Daniel Umshler
Randall Unverrich • Lindsey Upton • Megan Urban • Ronald Vaeth • Jesus Valadez • Sandra Valderrama • Stephen Valderrama
Paul Francis Valdez • Robert Vallely • Patricia Vanderwal • Dennis Vanryckeghem • Gustavo Varela • Laura Vecerina • Lorena Vera
Edward Virden • William Waddilove • Stacy Wade • Melanie Wahlbrink • Christopher Wallace • Maria Wallior • Christopher Wallis • Lyola Walls
James Wambeke • Bart Wapler • Nathalie Washington • April Webb • Rebecca Weir • John Weiss • Valerie Weisser • Veronica Welch • Scott Wells
George Wendt • Crystal White • Julie White • Leslie White • Dwight Whitlow • Vivian Whitlow • Debra Whitney • Leonard Willett
Dedina Williams • Georgie Willis • Eric Willson • Richard Willson • Brenda Wilson • Mark Wilson • Nicole Wilson • Terri Wilson
Brian Wingfield • Edward Wisner • Amy Witherall • Corinna Wittig • Dennis Wolfe • George Wolfe • June Wolfe • Ty Wolters • Peter Wong
Cheri Woodward • Emme Woodward • Grant Woodward • Linda Wright-Mitchell • Damon Yabo • Tess Yiamarelos • Gloria Yoakum
Elizabeth Young • Gary Zahlen • Katherine Zander • Alexis Zegers • Kevin Zito

Regional Management Team

Regional Director
Terry Fulp

Deputy Regional Director
Jennifer McCloskey

Deputy Regional Director
Dave Palumbo

Special Assistant to the Regional Director
Angela Adams

Regional Liaison
Sean Torpey

Safety & Occupational Health Office
Juli Smith

Lower Colorado Dams Office
Rob Skordas

Phoenix Area Office
Leslie Meyers

Southern California Area Office
Bill Steele

Yuma Area Office
Maria Ramirez

Acquisition & Assistance Management Office
Beverly Nelson

Boulder Canyon Operations Office
Steve Hvinden

Desert Landscape Conservation Cooperative
Genevieve Johnson

Engineering Services Office
Len Schilling

Equal Employment Opportunity Office
Linda Rivera

External Affairs Office
Rose Davis

Financial Management Office
Rick Leavitt

Human Resources Office
Lisa Cronister

Management Services Office
Stacy Wade

Multi-Species Conservation Program
John Swett

Native American Affairs Office
Ruth Thayer

Power Office
Chau Nguyen

Resource Management Office
Val Simon

Security Office
Dan Cowden

Offices and Facilities

Our activities are accomplished through the cooperative, coordinated efforts of several offices located throughout the Region.

Regional Office

Location: Boulder City, NV

Area of Operation: Primarily southern Nevada and southern Utah; works with Area Offices to accomplish Region's programs.

Major Responsibilities: Regional Director and Deputies oversee and have overall management responsibility for Regional activities. Programmatic offices – Acquisitions and Assistance, Equal Employment Opportunity, Engineering Services, External Affairs, Financial Management, Human Resources, Management Services, Native American Affairs, Power, Resources Management, Safety and Occupational Health, Security, and Lower Colorado River MSCP – direct, manage or work closely with Area Offices to achieve various programs and activities.

Contact: Lower Colorado Regional Office, Bureau of Reclamation, PO Box 61470, Boulder City NV 89006
Phone: (702) 293-8000 Web site: www.usbr.gov/lc

Boulder Canyon Operations Office

Location: Boulder City, NV

Area of Operation: Colorado River from Lee Ferry in northern Arizona to Davis Dam north of Laughlin/Bullhead City

Major Responsibilities: Supports the Region's water and hydropower management efforts. Works closely with the Yuma Area Office, Lower Colorado Dams Office, water and power contractors, Indian Tribes, and others to manage and schedule water and power operations on the lower Colorado River. Develops and administers water delivery contracts. Accounts for annual Colorado River water use in the lower basin and deliveries to Mexico. Oversees the region's water conservation program.

Contact: Boulder Canyon Operations Office, Bureau of Reclamation, PO Box 61470, Boulder City NV 89006
Phone: (702) 293-8400 Web site: www.usbr.gov/lc/riverops.html

Lower Colorado Dams Office

Location: Headquartered at Hoover Dam

Area of Operation: Manages, operates and maintains Hoover, Davis and Parker Dams and their associated powerplants and facilities.

Major Responsibilities: Through coordinated operations with Boulder Canyon Operations and Yuma Area Offices, delivers reliable water supply to contractors in Arizona, Nevada, California, and to Mexico. Generates power that is marketed in the three states under long-term contracts. Operates dams to provide flood protection when needed. Manages public tours of Hoover Dam; about one million people a year tour this iconic engineering structure.

Contact: Lower Colorado Dams Office, PO Box 60400, Boulder City NV 89006
Phone: (702) 494-2301 Web site: www.usbr.gov/lc/hooverdam/lcdo.html

Phoenix Area Office

Location: Glendale, AZ

Area of Operation: Most of Arizona and the Gila River Basin in western New Mexico.

Major Responsibilities: Oversees the operation and maintenance of the Salt River and Central Arizona Projects, both of which were constructed by Reclamation but are managed by other entities. Maintains an oversight role with the entities that manage recreation at the New Waddell Dam reservoir and canal-side facilities developed on Reclamation-owned project lands. Continues Reclamation's historic role of partnering with state, local and tribal governments and others to address contemporary water management needs. Works with the Department of the Interior and others to implement Indian water rights settlements.

Contact: Phoenix Area Office, 6150 W. Thunderbird Rd., Glendale AZ 85306
Phone: (623) 773-6215 Web site: www.usbr.gov/lc/phoenix

Southern California Area Office

Location: Temecula, CA

Area of Operation: California south of the Tehachapi Mountains except for the Imperial, Coachella and Colorado River valleys.

Major Responsibilities: Supports and cooperates with southern California water agencies, Tribes and others to help them develop or enhance their water supplies or improve their water management practices. Supports water conservation, wastewater reclamation and reuse projects, desalination research, and drought assistance programs. Provides technical assistance to Native American tribes, and water resources planning activities throughout southern California.

Contact: Southern California Area Office, 27708 Jefferson Ave., Ste. 202, Temecula CA 92590
Phone: (951) 695-5310 Web site: www.usbr.gov/lc/socal

Yuma Area Office

Location: Five miles west of Yuma, AZ

Area of Operation: Lower Colorado River below Davis Dam; southwestern Arizona and southeastern California.

Major Responsibilities: Coordinates with Boulder Canyon Operations and Lower Colorado Dams Offices to schedule and deliver Colorado River water to users in southwest Arizona, southeast California, and Mexico. Operates and maintains large-scale well fields to help maintain water tables near Yuma. Oversees the Yuma Desalting Plant, one of the world's largest reverse osmosis desalination facilities. Conducts advanced water treatment research at a state-of-the-art research center. Participates in water conservation outreach and demonstration projects with local irrigation districts and Native American tribes. Maintains levees and other Reclamation facilities along the lower river.

Contact: Yuma Area Office, 7301 Calle Agua Salada, Yuma AZ 85364
Phone: (928) 343-8100 Web site: www.usbr.gov/lc/yuma