



— BUREAU OF —  
RECLAMATION

# The Lower Colorado Basin Fiscal Years 2019 & 2020



A photograph of a sunset over a large body of water. The sun is low on the horizon, creating a bright, shimmering reflection on the water's surface. The sky is filled with soft, golden light and scattered clouds. In the distance, a range of dark mountains is visible against the horizon. The overall mood is peaceful and serene.

## **Mission Statements**

**The Department of the Interior conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.**

**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.**

## Regional Director's Message

I am pleased to share with you the Lower Colorado Basin Region's biennial report for Fiscal Years 2019 and 2020. This report highlights our accomplishments, achieved only through the skill, dedication, and hard work of our 800+ employees.

Our Region continues to manage, protect, and enhance a broad range of water, power, land, and ecosystem resources throughout the Southwest in the interest of the American public. Our commitment to transparent and collaborative problem-solving, with the involvement of all our partners and stakeholders, is paramount to the way we have and will continue to do business.

I am extremely proud of what we have been able to accomplish these two years, even in the face of a global pandemic in 2020.

I invite you to read this report and learn more about our challenges and successes over the past two years. Please share any feedback you may have via email at [lcrpublicaffairs@usbr.gov](mailto:lcrpublicaffairs@usbr.gov).

Sincerely,



Terrance J. Fulp, Ph.D.  
Regional Director  
Lower Colorado Basin





**Fog rising off the Colorado River at the Yuma East Wetlands**





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## Acronyms

af	acre-feet
AOP	Annual Operating Plan for Colorado River Reservoirs
BLM	Bureau of Land Management
CADO	Centralized Administrative Dispatch Office
CAP	Central Arizona Project
DCP	Drought Contingency Plan
FY	Fiscal Year
kWh	kilowatt-hour
maf	million acre-feet
MW	megawatt
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
SRP	Salt River Project



## Lower Colorado Basin Region – At a Glance

The Bureau of Reclamation's Lower Colorado Basin Region encompasses about one-tenth of the land area of the western United States, spanning southern Nevada, southern California, and most of Arizona. Our numerous projects and facilities constructed in the Region – including the Salt River Project, Hoover Dam, the Central Arizona Project, and the Southern Nevada Water System – have and will continue to contribute significantly to the Southwest's economic growth and development.

Building water and power facilities was the Region's major role for most of the 20th century. Today, our primary focus is operating and maintaining our facilities; efficiently delivering water and power; ensuring the safety and security of our projects, employees, and visitors; and preserving and enhancing

natural and recreational resources related to our projects.

The financial resources we receive from Congressional appropriations, cost-sharing, and other sources, coupled with efforts of our partners and 800+ employees, enable us to:

- Manage 15 dams and 13 reservoirs
- Deliver 3 trillion gallons of Colorado River water annually
- Operate and maintain 14 hydropower plants that annually produce about 5 billion kilowatt-hours of energy
- Cooperate with 61 Native American tribes and 1 international neighbor
- Manage 32 recreation areas and 2 National Water Trails
- Manage 1.3 million acres of public land

Lee's Ferry on the Colorado River





# Lower Colorado Basin F



**817**  
Employees

**14**  
Hydropower  
plants

**13**  
Reservoirs

**4.9 Billion**  
Kilowatt-hours  
produced in 2020

**1**  
Border neighbor  
(Mexico)





# Region By the Numbers

**\$439.7 Million**

FY 2020 budget

**34.1 Million**

Acre-feet of reservoir capacity  
(An acre-foot is 325,851 gallons)

**2**

National Water Trails

**1.3 Million**

Acres of land owned/managed

**2,602**

Megawatts of hydropower capacity

**61**

Native American tribes

**Nearly 3 Trillion**

Gallons of Colorado River water delivered

**32**

Recreation areas

**\$3 Billion**

Value of water related outdoor recreation activities





## FYs 2019 & 2020 Budget Highlights

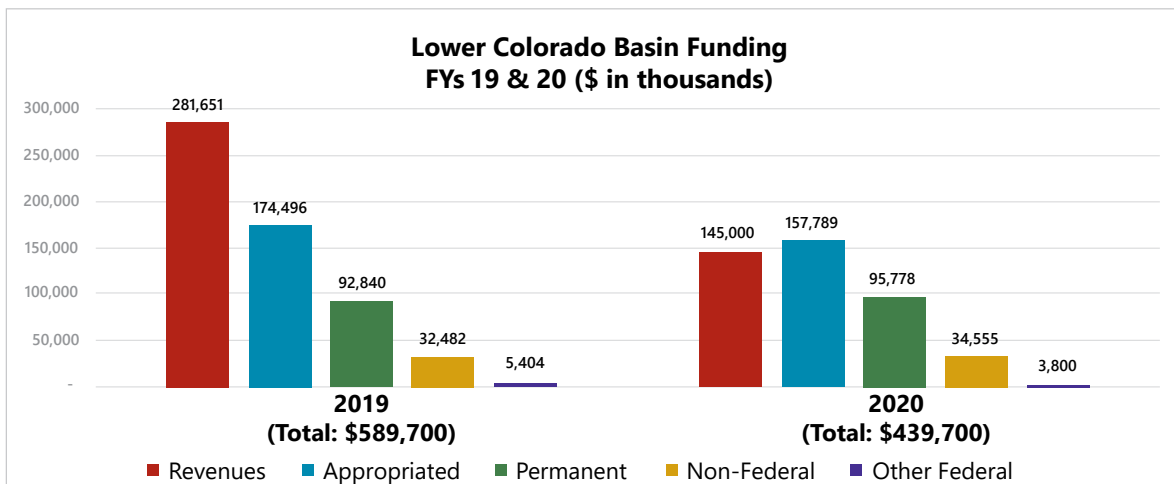
The Region’s total operating budgets, \$589.7 million in Fiscal Year (FY) 2019 and \$439.7 million in FY 2020, were derived from the following funding sources:

- Congressional appropriations,
- “permanent funding” from the sale of Hoover Dam power,
- revenues received for Central Arizona Project activities, including Navajo Generating Station surplus power sales,
- non-federal funds from Parker-Davis Project power contractors and Lower Colorado River Multi-Species

Conservation Program cost-share partners, and

- other federal funds provided by the Bureau of Indian Affairs through the Southern Arizona Water Rights Settlement Act.

Most of our annual operating funds are provided by program revenues or project partners. Of the total operating budgets in FYs 19 and 20 (fiscal years are from October 1 through September 30 of each year), Congressional appropriations comprised about 30% and 36%, respectively.



## FYs 2019 & 2020 Financial Commitments

For both FYs 19 and 20, the Region obligated approximately \$660 million for project-related activities through the award of 1,461 contract actions, 423 financial assistance agreements, 15 Public Law 93-638 Indian Self-Determination contracts and modifications, and 23,929 micro-purchases.

- Through these awards and purchases, small businesses and tribes benefited by approximately \$94.1 million and \$72 million, respectively.

- Contract awards to Small Businesses increased by \$3 million from FY 2019 to FY 2020, and in both years, we exceeded our Small Business goals.
- We completed 297 financial transactions, separate from the acquisitions process, awarding more than \$392 million in support of key programs and projects within the Region, ranging from 242 Wellfield expansion construction to projects at the Salton Sea.

## Managing the Lower Colorado River

Delivery of water is our primary responsibility in the management of the lower Colorado River. The total amount of water delivered each year is based on a number of factors, including the amount of water apportioned for use in Arizona, California, and Nevada; interstate and other agreements; and operational decisions by individual water districts throughout the year. In addition, addressing the ongoing drought and increasing water availability through conservation and other activities is vital to ensure the sustainability of the River.

### Water Operations

Our Region implements the Department of the Interior Secretary's "water master" responsibilities in the Lower Basin that include annually determining the water supply condition for meeting reasonable Colorado River use in Arizona, California, and Nevada; contracting with entitled water users for water delivery; and accounting for all water use, also on an annual basis.

Major accomplishments include:

- Developed the 2019 and 2020 Annual Operating Plans (AOPs) for Colorado River Reservoirs, in cooperation with the Upper Colorado Basin Region and partners and stakeholders Basin-wide.
- Delivered 8.03 million acre-feet (maf) in 2019 and projected to deliver approximately 8.22 maf in 2020 in accordance with each year's AOP.
- Scheduled water releases from our mainstream dams on a monthly, daily, and/or hourly basis to meet downstream water deliveries and other operational needs.

- Minimized the volume of excess flows at the Northerly International Boundary with Mexico, thereby saving water in Lake Mead. In CY 2019, the excess volume was 39,700 acre-feet (af), as compared to the annual average of 82,900 af based on the 10-year period that preceded the construction and operation of Brock Reservoir.
- Measured, recorded, and reported all water diverted and returned to the mainstream. Approximately 98% of these data are tracked on a real-time basis and incorporated into an annual water use forecast that is updated daily.
- Published the annual Colorado River Accounting and Water Use Reports for 2018 and 2019, available at [www.usbr.gov/lc/region/g4000/wtracct.html](http://www.usbr.gov/lc/region/g4000/wtracct.html).
- Executed 48 water contract actions, including those related to the delivery and lease of water, inclusion/exclusion of land within agricultural districts, and system conservation.

### 2019 & 2020 System Status

Approximately 90% of the Colorado River Basin's annual water supply originates in the Upper Basin, primarily from snow precipitation and runoff. In Water Year (WY) 2019 (October 1, 2018 through September 30, 2019), the cumulative precipitation within the Upper Basin was 112% of the 30-year average (1981 through 2010). The unregulated inflow (accounting for the effects of operations upstream) into Lake Powell was 120% of the 30-year average. WY 2019 was only the fifth year since WY 2000 with inflow above average. In WY 2020, however, precipitation



and runoff were only 77% and 54%, respectively.

Basin-wide, the amount of water stored in Colorado River system reservoirs increased from 47 to 53% of capacity in WY 2019 (an increase of 3.62 maf of water in storage). In

WY 2020, however, total system storage decreased from 53% to 48% of average (a decrease of 2.75 maf).

The table below provides a summary of Colorado River system conditions for 2019 and 2020.

<b>Summary of System Conditions<sup>1</sup></b>			
		2019	2020
<b>Upper Basin – Lake Powell</b>			
Unregulated Inflow into Lake Powell <sup>2</sup> (WY)	% average <sup>3</sup>	120	54
Cumulative Precipitation (WY)	% average <sup>3</sup>	112	77
Lake Powell Annual Release (WY)	million acre-feet (maf)	9.00	8.23
<b>Lower Basin - Lake Mead</b>			
Inflow into Lake Mead <sup>4</sup> (WY / CY)	maf	10.09 / 10.11	9.09 / 9.03
Lake Mead Annual Release (CY)	maf	8.51	8.75
Lake Mead Elevation (Start of CY)	feet	1,081.46	1,090.49
Lake Mead Storage (Start of CY)	maf	10.13	10.90
	% capacity	39	42
Change in Elevation (CY)	feet	+9.03	-5.50
Change in Storage (CY)	maf	+0.77	-0.47
<b>Basin-wide System Conditions</b>			
Total System Storage (Start of WY)	% capacity	47	53
Total System Storage (End of WY)	% capacity	53	48
Change in System Storage (WY)	maf	+3.62	-2.75

<sup>1</sup> A water year (WY) is based on the period from October 1 through September 30. A calendar year (CY) is based on the period from January 1 through December 31. CY 2020 values are projected.

<sup>2</sup> Approximately 90% of the Colorado River Basin’s annual water supply originates in the Upper Basin.

<sup>3</sup> Based on a 30-year average from 1981 through 2010.

<sup>4</sup> The total inflow into Lake Mead is a combination of the water released from Glen Canyon Dam and inflows to the river from tributaries between Glen Canyon and Hoover dams.

## Addressing Drought

The Colorado River Basin continues to experience its worst drought in recorded history. The period from 2000 through 2020 marked the driest 21-year period in more than 100 years of record-keeping on the Colorado River. Since the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and

Coordinated Operations for Lake Powell and Lake Mead were implemented, voluntary water conservation and storage activities have added approximately 2.85 maf to Lake Mead through 2019, bolstering its elevation by approximately 35 feet. This additional water from conservation and increased releases

from Lake Powell (based on improved hydrologic conditions) have kept the Lower Basin from shortage every year since 2016.

After nearly six years of hard work and collaboration, consensus-based Drought Contingency Plans (DCPs) were agreed to on May 20, 2019 for both the Upper and Lower Basins to reduce the risk of reaching critically low elevations at Lake Powell and Lake Mead. In the Lower Basin DCP, Arizona, California, and Nevada water users and Reclamation agree to take proactive water conservation and system efficiency improvement actions to increase storage in Lake Mead by specified amounts based on the reservoir's elevation. Additional operational flexibility for the long-term storage of conserved water in Lake Mead is also included. The execution of the U.S. agreement also activated the Binational Water Scarcity Contingency Plan under Minute 323 of the 1944 Water Treaty with Mexico which contains similar provisions.

Implementation of the Lower Basin DCP and the Binational Water Scarcity Contingency Plan began in 2019. It is estimated the actions taken under these plans in 2019 and 2020 will increase Lake Mead's elevation by about 10 feet.

## Increasing Water Availability

Adequate water supply is essential for survival, a healthy ecosystem, energy production, and economic sustainability. The Region supports a variety of programs to help water users and stakeholders meet these demands.

Major accomplishments include:

- Reclamation's WaterSMART (Sustain and Manage America's Resources for Tomorrow) Program provides assistance to water or power organizations to help address changing water supplies and demands, and secure water resources for growing communities, economies, and

Signing of Drought Contingency Plans at Hoover Dam, May 2019





ecosystems. Projects are selected through a competitive process, and awards are made through agreements for technical and/or financial assistance that typically require a 50% to 75% non-federal cost share.

- o FY 19 – In partnership with the Salt River Project (SRP), completed a reservoir operations pilot study to identify potential impacts of changing water supply on Salt and Verde river operations.
- o FYs 19 & 20 – Awarded WaterSMART grants totaling \$16,943,698 for 46 projects in FY 19, and in FY 20, 35 projects were awarded a total \$12,248,466 of grant funds.
- o FYs 19 & 20 – Continued work on the San Diego Basin Study in California, and the West Salt River Valley, Lower Santa Cruz River, and Eloy and Maricopa-Stanfield basin studies in Arizona to assess the potential changes of future water supply and demand in those areas.
- o FYs 19 & 20 – Continued 24 water and related resources strategic planning studies annually totaling \$2.6 million, including approximately \$1.3 million of in-kind services provided by study partners.
- o FYs 19 & 20 – Under Title XVI of P.L. 102-575, awarded \$10.6 million for new grants and \$47.4 million to existing grants for construction of Southern California water recycling and treatment plants.
- o FYs 19 & 20 – Completed Title XVI projects (46 in Southern California and two in Southern Nevada) produced more than 375,000 af of water each FY.
- o FY 20 – Awarded nearly \$1 million for three Title XVI water reclamation and reuse research projects.
- o FY 20 – Under P.L. 114-322, the Region awarded \$15.6 million for three new desalination construction projects in Southern California.
- FYs 19 & 20 – Invested \$1.7 million for equipment replacements and infrastructure repair in the aging Yuma Desalting Plant, which has the capability to desalinate up to 72 million gallons per day of highly saline irrigation flows that could be returned to the Colorado River. Additionally, in FY 20, Reclamation completed a value planning study on alternatives for the future of the Plant. A study was initiated to further explore four of these alternatives – facility transfer, abandonment, public/private partnership, and operating the plant.
- FY 20 – In partnership with SRP, initiated an appraisal level study to identify and analyze potential alternatives to restore lost capacity and mitigate future sediment impacts through the development of new infrastructure on the Verde River.
- FY 20 – Reclamation’s Technical Service Center, in collaboration with SRP and the U.S. Army Corps of Engineers, began evaluating potential dam safety and operational changes to provide increased water supply resilience.

## Binational Program

The Colorado River is a vital resource to the people, environment, and economy of both the U.S. and Mexico. During FYs 19 & 20, we continued our partnership with the International Boundary and Water Commission, federal and state agencies, water districts, and non-governmental organizations in both countries to develop and implement approaches to address water conservation, drought responses, and environmental enhancement. These proactive and collaborative efforts between the two countries are outlined in Minute 323 to the 1944 Water Treaty with Mexico, and exemplify the commitment of both nations to collaborative Colorado River Basin management.

Major accomplishments include:

- FYs 19 & 20 – Initiated and implemented the conditions of the Binational Water Scarcity Contingency Plan under which

Mexico will conserve additional water when Lake Mead reaches certain low elevation reservoir conditions. The conserved water will be recovered when reservoir conditions improve.

- FYs 19 & 20 – Continued storing deferred Mexican water in the U.S. and investing in water conservation projects in Mexico.
- FYs 19 & 20 – Continued sharing hydrologic models, scientific data, and operational information with stakeholders in the U.S. and Mexico to guide best practices in the implementation of Minute 323.
- FYs 19 & 20 – Continued environmental enhancement and flows monitoring projects in the Colorado River Limitrophe and Delta, through a collaborative and coordinated effort between stakeholders and partners in both countries.



**Reclamation Commissioner Brenda Burman (center left) and U.S. and Mexican partners tour a restoration site established as part of Minute 319 provisions along the Colorado River in Mexico.**



## Power Operations

Reliable, low-cost hydropower generated at the Region's projects has provided tremendous value to the Southwest, providing firm electric power to rural communities as well as services to support interconnected grid reliability. We also administer a comprehensive power operations and maintenance program to ensure our power facilities are safe, reliable, and cost effective.

Best known are our large powerplants on the Colorado River – Hoover, Davis, and Parker dams. Although drought has significantly lowered Lake Mead water levels and reduced Hoover Dam powerplant's available capacity from 2,074 megawatts (MW) to about 1,570 MW (about a 24% reduction), net generation from the three plants was about 5 billion kWh in both FY 19 and FY 20.

Major accomplishments include:

- Hoover Dam operates as a peaking powerplant, responding at four-second intervals to meet peak electrical demands

of Western Area Power Administration, which markets the electricity produced under long-term contracts to 46 customers.

- o FY 19 – Completed modernization of three generating unit pressure relief valves and recoated the interior of the Upper Arizona Penstock.
- o FY 20 – Completed a \$12 million multi-year project to replace nine 16.5 Kilovolt unit circuit breakers.
- o FY 20 – Completed a \$500,000 project to re-wedge the Nevada 4 stator (the stationary part of a rotary system) inside the generator.
- o FY 20 – Despite the impacts of the COVID-19 pandemic on Hoover Dam visitation, successfully mitigated an

**Western Area Power Administration linemen maintain the transmission lines extending from Hoover Dam near Lake Mead.**



- \$8.5 million loss of Hoover Dam Visitor Center revenue without significantly impacting Hoover operations and without increasing power customer rates. This was accomplished with budget line items savings in the FY 20 budget and by rescheduling projects for future years.
- Parker and Davis dams operate as run-of-the-river powerplants coordinating with Western Area Power Administration, which markets the electricity produced under long-term contracts. They provide power to 40 customers, ranging from electric cooperatives and municipalities to irrigation districts and tribes.
    - FY 19 – Completed replacement of five transformers at Davis Dam as part of a multi-year \$13 million project to ensure optimal performance of the plant. The project replaced four 65-year-old original transformers and a 20-year-old transformer. The 20-year-old transformer remains on-site as a spare for use during emergencies.
    - FY 19 – Installed three unit breakers, completing a \$3 million project at Davis Dam.
    - FY 19 – Several projects (improved air conditioning units, sound abatement panels installation, improved electrical system components) were completed to improve safety and increase the reliability of systems within the Davis powerplant.
    - FY 20 – Completed a \$300,000 project that installed dissolved gas monitors on the five new Davis transformers, providing real time gas analysis of the operating transformers.
    - FY 20 – Completed the upgrade and redesign of the switchgear, and station service protection system relays at Parker Dam and Davis Dam, respectively. These projects enhance personnel safety, increase reliability of the station service systems, and bring designs up to current standards.
    - FY 20 – Completed a \$1.05 million project to replace an asbestos domestic water line at Parker Dam, routing the new line off the roadway to minimize future disruptions to water delivery and traffic.
  - FY 20 – Negotiated and executed nine contracts associated with the Central Arizona Project (CAP) and Navajo Generating Station in coordination with power customers in Arizona, California, and Nevada for activities ranging from continued operation and maintenance of area transmission systems to the establishment of an oversight committee for Station decommissioning activities.
  - FY 20 – Coordinated efforts that defer Right of Way costs for the Navajo Western Transmission system, which will provide long-term cost savings for the Navajo Nation, CAP, and others.
  - FY 20 – Continued to advise and assist the Navajo Nation with opportunities for the development of renewable generation on Nation lands.



## Protecting and Enjoying Water-related Resources

Managing and protecting natural and cultural resources by complying with laws like the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and others is an important part of our mission.

We oversee more than a million acres of Reclamation lands for operations and projects. Evolving public demands and regulatory requirements mean these lands are now also needed for other purposes, such as non-hydro renewable energy production, recreation, and environmental activities.

### Lower Colorado River Multi-Species Conservation Program

The Region administers one of the largest environmental programs in the nation – the Lower Colorado River Multi-Species Conservation Program – which balances the use of water resources along 400 miles of the Colorado River with the conservation of native species and their habitats.

Twenty-seven species, including eight listed as threatened or endangered under the federal Endangered Species Act, are covered under this 50-year program which celebrated 15 years of implementation in FY 20. The partnership, comprised of 57 entities, is completing 13 general conservation measures and 67 species-specific conservation measures.

Major accomplishments include:

- To date (FY 20), five Habitat Conservation Plan conservation measures have been completed and 17 conservation areas established.

- FYs 19 & 20 – Established 468 acres of new riparian and backwater habitat, bringing the total area managed for native species to more than 6,900 acres since the program began.
- FYs 19 & 20 – More than 61,000 native fish were raised and/or stocked during the two FYs, bringing the totals to about 366,000 razorback suckers and 114,500 bonytail stocked since the program began.

### Environmental and Cultural Resources

The Region oversees more than a million acres of Reclamation lands for operations and projects ranging from local utility and renewable energy projects to communications facilities and electric transmission lines.



Major accomplishments include:

- FYs 19 & 20 – Completed 168 NEPA-related actions, ensuring environmental compliance for a variety of activities ranging from WaterSMART projects to reallocation of CAP water.
- FYs 19 & 20 – Consulted with more than 40 Native American tribes, numerous public and non-government organizations, and five state historic preservation offices.
- FYs 19 & 20 – Conducted annual audits on Reclamation facilities to ensure compliance with federal and state environmental laws and regulations.
- FYs 19 & 20 – Assisted with efforts to maintain and construct weirs that help control flows in the Las Vegas Wash, which carries more than 150 million gallons of water a day through a wetlands corridor to Lake Mead.
- As part of conservation measures associated with CAP water deliveries, at the end of FY 20, completed 9 of 13 barriers on Gila River Basin streams to prevent non-native fish from moving upstream into natural habitats. Maintenance continued on the existing barriers and planning/design was conducted for new barriers.
- FY 20 – Funded and helped establish three populations of endangered fish – the Gila Topminnow, two populations of Loach Minnow, and a population of Spikedace. In total, 2,761 fish were stocked in five different streams across the Gila River Basin.
- FY 20 – Cultural staff contacted/consulted with more than 23 Native American tribes in Arizona, California, Nevada, and Utah, as well as

with other public and non-government organizations and three state historic preservation offices, all to help identify and protect cultural and historic resources on Reclamation lands.

- FY 20 – Completed a cultural resource survey of 2,875 acres in the Clark County Wetlands Park along the Las Vegas Wash and the archaeological survey of a 757-acre parcel in Henderson, NV at the base of the River Mountains.
- FY 20 – Conducted Section 110 cultural resource survey work on Reclamation lands that may potentially be affected by changes in reservoir and river elevations, as a result of NHPA.
- FY 20 – Provided environmental compliance assistance for water contracts, right-of-use and easement grants and approvals, recreation development partnerships, and Title XVI and WaterSMART grants.

### **Reducing Our Environmental Footprint**

Through our Sustainability and Environmental Management System, we ensure sustainable practices are followed in business routines that highlight energy efficiency, water conservation, waste reduction, and the conservation of biological, cultural, and natural resources. This Regional program continues to be used as a “best practice” model throughout the Bureau of Reclamation.

Major accomplishments include:

- The Region’s Human Resources Office implemented electronic forms, resulting in 350 pounds of paper each year being eliminated from the waste stream.



## Administration Building Renovations

In FY 19, we completed renovations on the Region's headquarters Administration Building in Boulder City, Nevada. Constructed in 1932, the building is one of the oldest in Reclamation's portfolio. The renovation modernizes, repairs, and updates the building's mechanical, electrical, and plumbing systems and substantially increases their efficiency. Our efforts to restore and preserve the valued historical aspects of the building while modernizing its interior for contemporary uses and LEED-level certification is evidence of our commitment to preserve, enhance, and promote Boulder City's unique history and heritage, and ensure the building's unique features will continued to be enjoyed by future generations.



- Installed in 2018, the Yuma Office's solar carport now generates 24 megawatt-hours of energy each month.
- Yuma also expanded a recycling program and expects to recycle approximately five tons of sandblast media and 750 pounds of desiccant this year. HDPE (a plastic polymer) pipe scraps are also recycled.
- The Phoenix Office reduced its CO<sub>2</sub> emissions by eliminating three fleet vehicles and exchanging two others for a hybrid and an all-electric vehicle.
- In addition, Phoenix installed a dual port Energy Star-rated electric vehicle charging station and adopted a local process which allows employees to utilize the station to charge their personal vehicles, further reducing greenhouse gas emissions.
- Phoenix also installed 2,765 square feet of window film, further reducing annual air conditioning load and energy consumption.
- Fluorescent lights were converted to LED lights in the Phoenix Office, resulting in reduced heat and increased energy savings.
- FY 20 – Ensured sustainable building practices are included in the planning of two major renovations on our Lower Colorado Basin Campus in Boulder City, NV. One building's energy efficiency was improved with new roof-mounted air

conditioning units and new insulation. Engineering safety measures were also included in the design with the installation of an internal ladder that allows access to the roof without the need to use extension ladders outside the building.

- With the Lower Colorado Basin Region campus home to four LEED-certified facilities, the Region is a leader in sustainable operations. Additionally, three buildings on the main Date Street campus are supported by a one-half megawatt solar field that produced 615 megawatt-hours over the FY 19 and FY 20 period. With repairs and upgrades, it is projected that the solar field will provide a 31% increase in power production in the FY 20 through FY 22 period.

### **Tackling Invasive Species and Maintaining Water Quality**

Several invasive species have migrated into the Lower Colorado River Basin. We are addressing the threats these species pose to water, hydropower, the environment, and recreational activities. Additionally, our staff coordinates with other partners to make water quality data available for management decisions, studies, and modeling.

Major accomplishments include:

- FY 19 – Continued long-term monitoring of plankton and water quality at Lakes Mead and Havasu to evaluate long-term effects of quagga mussels.
- For the 15th consecutive year (FY 19), partnered to reduce and control the further spread of giant salvinia, an invasive aquatic weed discovered in the Colorado River near Blythe, CA.

- FY 19 – Treated 10 acres of land to remove tamarisk and invasive weeds and planted approximately 250 native plants on 1.5 acres.
- FYs 19 & 20 – Funded watercraft inspection and decontamination stations at Lakes Mead, Havasu, and Pleasant, and helped the State of Arizona develop their mobile watercraft inspection and decontamination station capacity.
- FYs 19 & 20 – Provided support for the State of Colorado to enhance and maintain a database used by most Western states to help track watercraft movement and inspections throughout the West.
- FYs 19 & 20 – Conducted long-term monitoring of biological and water quality conditions at Lakes Mead, Mohave, and Havasu, and in the Las Vegas Wash and in other locations on the lower Colorado River.
- FY 20 – Provided technical expertise to other Reclamation and Interior Department offices' Aquatic Invasive Species programs to assist with program support, merit reviews, subject matter expert reviews, and other data and information sharing efforts.
- FY 20 – Responded to a nuisance filamentous algae bloom in the Coachella Canal by coordinating with the Reclamation dive team, collecting samples, and preparing a report of findings.
- FY 20 – Developed a plan within the Colorado River Comprehensive Watershed Study to help determine future water quality monitoring activities based on data gaps and needs of Reclamation and our water quality partners.



## Salton Sea Program

Reclamation owns approximately 90,000 acres of land under and adjacent to the 375 square-mile Salton Sea, located in Southern California. We are an active participant in California's process to manage resources at the Sea and work closely with partners to identify and prioritize projects to reduce dust emissions, improve water quality, restore habitat, and provide local economic development opportunities.

Major accomplishments include:

- FYs 19 & 20 – Provided nearly \$2 million for boat access restoration for habitat monitoring and recreational benefits, construction of habitat for migratory birds, evaluation of the effectiveness of improved water delivery to the Sea, dust mitigation activities, reduction of playa emissions, and expansion of wetland habitat.
- FY 20 – Coordinated with the U.S. Army Corps of Engineers, Bureau of Land Management, and U.S. Fish and Wildlife Service to improve the environmental compliance and permitting processes for proposed projects around the Sea.

## Recreation on Reclamation Lands and Waters

The Region's projects and lands provide year-round recreational opportunities to millions of visitors annually through partnerships with state, local, public and private entities, and other federal agencies.

Major accomplishments include:

- FY 19 – Began work on the 5-mile-long Arizona section of the Colorado River Heritage Trail, that will connect to the existing trails on the Nevada side of the Colorado River near Laughlin, NV.

- FY 19 – Completed a new fishing pier at Contact Point on Lake Havasu.
- FYs 19 & 20 – Hosted on Reclamation lands in Arizona the PGA Tour's Waste Management Phoenix Open, the Barrett-Jackson Scottsdale Collector Car Auction, and the Scottsdale Arabian Horse Show, which featured a combined attendance exceeding one million visitors each year.
- FYs 19 & 20 – Developed nearly 18 miles of non-motorized trail and continued planning for an additional 39 miles of trail along the Central Arizona Project canal.
- FYs 19 & 20 – Completed renovations to the Hoover Dam Visitor Center Theater Level and awarded a contract for Exhibit Level renovation designs to update the facility with new, easy-to-maintain fixtures and finishes, accessible features, and updated interpretive exhibits.
- FY 20 – Hoover Dam implemented a Commercial Use Authorization permit requirement for commercial tour companies conducting tours at Hoover Dam. This is projected to provide \$4 million in annual revenue to help offset the cost of providing Visitor Services and improves oversight of commercial use tour groups during their visits to the dam.
- In FY 19, about 5 million people visited Hoover Dam, with over 680,000 of those visitors participating in dam tours and special events. The dam also achieved a 98% overall satisfaction rate, based on surveys conducted for nine public programs at the site. By March 2020, when the dam – and all tour activity – was closed to the public as a measure to protect against the spread of the Coronavirus, approximately 255,000 visitors had toured the dam.

# Hoover Dam Visitor Center Improvements

Hoover Dam Visitor Center Theater Level renovations were completed in March 2019. Constructed in 1995, the center is undergoing a series of transformations to ensure visitors will continue to have enjoyable and pleasant experiences. The original fixtures and finishes were replaced with bright, durable, and easy-to-maintain elements and accessible features. This portion of the renovation provides a beautiful space to welcome visitors as they begin their experience at Hoover Dam.



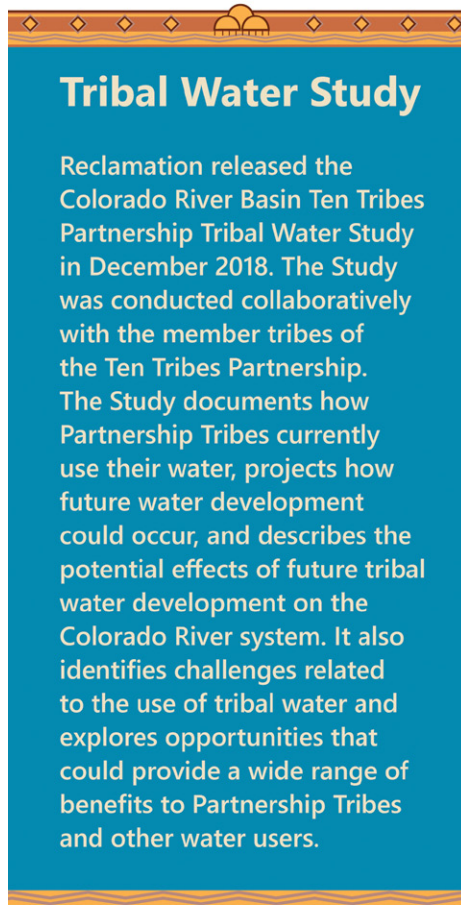


## Supporting Native American Tribes and Communities

The Region works closely with Native American tribes to assist tribal governments to protect, manage, and develop their water and related resources. These cooperative efforts advance opportunities that provide a wide range of benefits to the tribes, and also help sustain resources for other water users. We help fulfill the United States' trust responsibility for the 61 federally recognized tribes in the Region through planning, operational, financial, and technical assistance that help the tribes develop and manage their water resources.

Major accomplishments include:

- FY 19 – Removed approximately 37,000 cubic yards of sediment on the Colorado River Indian Reservation to improve flow of the Colorado River.
- FY 19 – Worked with the Fort Yuma Quechan, Cocopah, Fort Mojave, Hualapai, Chemehuevi, and Colorado River Indian tribes in monitoring the clean-up of toxic hexavalent chromium found in groundwater near Needles, CA.
- FYs 19 & 20 – Collaborated with the Hopi Tribe, Navajo Nation, and Pueblo of Zuni in activities related to the retirement of the Navajo Generating Station.
- FYs 19 & 20 – Provided nearly \$3 million in technical assistance funding to aid nine tribes in Arizona and California with projects ranging from water infrastructure repair to evaluating and designing improvements to groundwater systems.
- FYs 19 & 20 – Awarded more than \$2 million for plans and studies related to negotiation and implementation of Indian water rights settlements.
- FYs 19 & 20 – Awarded contracts totaling \$36.8 million (FY 19) and \$34.2 million



(FY 20) under the Indian Self-Determination and Education Assistance Act to the Tohono O'odham Nation and the Gila River Indian Community in Arizona to support the construction of tribal irrigation distribution systems.

- FYs 19 & 20 – Provided funding and assistance for projects and activities implemented pursuant to water rights settlements in Arizona.
- FY 20 – Created approximately 55,000 acre-feet of long-term storage credits for CAP water stored in Lake Mead and in underground storage facilities, and effluent stored through recharge agreements. The credits will be used to meet the U.S. firming obligation pursuant to the Arizona Water Settlements Act.

## Safeguarding and Managing Our Resources

The Lower Colorado Basin Region is committed to ensuring the reliability and serviceability of our water and power project facilities by identifying, planning, scheduling, and performing all maintenance, replacements, and rehabilitation work in a cost-effective, efficient, and timely manner. The Region's facilities also use new technology and scientific information, when possible, to enhance operations and project benefits.

### Maintaining Safe Infrastructure

We ensure the Region's dams and other facilities, some of which are over a half-century old, continue to operate safely and reliably. To reduce potential risk, we assess structural and performance reliability and implement modifications using state-of-the-art design and construction practices through our Safety of Dams and Review of Operations and Maintenance programs.

Major accomplishments include:

- FYs 19 & 20 – The Region's 15 high hazard dams all received the highest Facility Reliability Rating of "Good" based on a variety of safety, operational, and maintenance factors, demonstrating the effectiveness of the safety review program.
- FYs 19 & 20 – Conducted five Comprehensive Facility Reviews and one Periodic Facility Review, resulting in no major findings or recommendations.
- FYs 19 & 20 – Conducted 17 Review of Operations and Maintenance inspections on our canals, bridges, siphons, and pipelines, resulting in no major deficiencies or safety concerns.

- FYs 19 & 20 – Inspected sections of ten canals in three water districts that could potentially flood urban areas if a failure were to occur. All were found to be in good condition.
- FYs 19 & 20 – Inspected 90 of 200 Reclamation bridges in the Region and conducted 19 underwater and 14 rope access examinations of structures. No significant safety issues or concerns were found.

We also have a key role in maintaining our facilities to ensure safe operations and consistent water deliveries.

- FY 19 – Established a multi-year contract for sediment removal of lower Colorado River wash fans which deposit large amounts of sediment and debris into the River, resulting in increased erosion and compromised banklines.
- FYs 19 & 20 – Secured over \$2 million in Federal Lands Transportation Program funding to make necessary improvements to our transportation assets, including replacing bridge decks on the Gila and California Sluiceway bridges downstream of Imperial Dam, resurfacing two roads that provide recreational access to Senator Wash and Imperial Dam, replacing the Chapay Bridge in the Yuma area, and transportation improvements at Horse Mesa Dam.
- FY 20 – Conducted nearly \$1 million in infrastructure repairs on the 23-mile-long Yuma Desalting Plant's Bypass Drain.

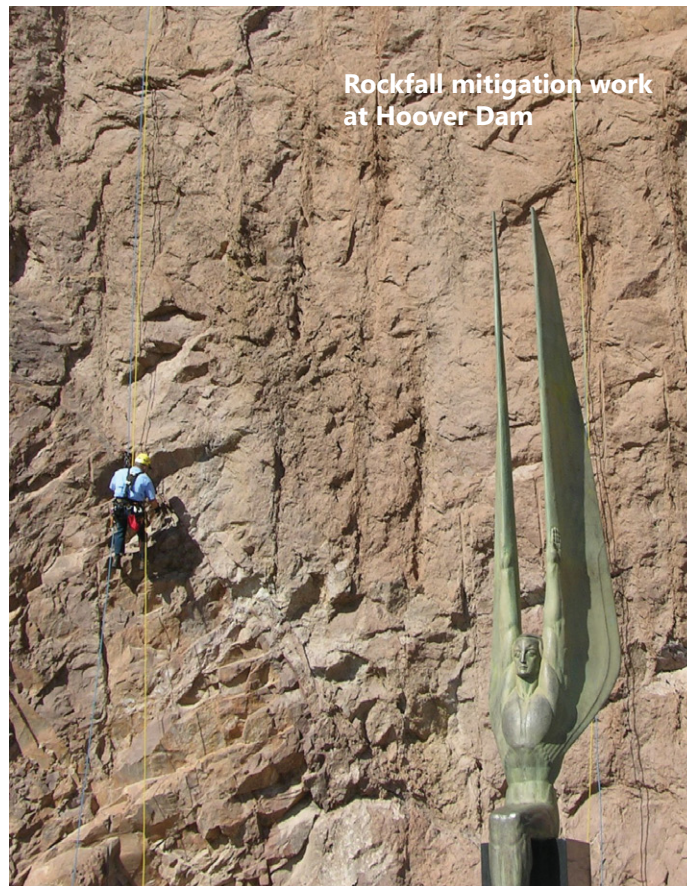


## Ensuring the Safety of Our Employees, Contractors, and Visitors

The Region's Safety Commitment is, "every employee, contractor, and visitor arrives at work safely, conducts business safely, and returns home safely every day." Meeting this Commitment demands that we always follow safety guidelines and safe practices.

Major accomplishments include:

- FYs 19 & 20 – Promoted workplace safety by publishing safety articles, fostering Campus and Regional safety committees, and renewing our Occupational Medical Contract that provides medical surveillance and monitoring for our employees.
- FYs 19 & 20 – Completed a nearly \$1.5 million contract to replace an out-of-code sprinkler system in the Yuma Office's administration building.
- FY 20 – Reviewed over 90 Hazardous Material Authorizations.
- FY 20 – Implemented new health program initiatives and training, including Regional Hazard Communication and Bloodborne Pathogens programs, reviewed new or updated Reclamation Safety and Health Standards sections, updated existing Regional Safety and Health Programs including the Automated External Defibrillator Program, Respiratory Protection, and Hearing Protection guidelines, and drafted new site-specific guidance for Confined Spaces and Ladder Safety.
- FY 20 – Completed \$1.5 million in rockfall mitigation projects at Hoover and Parker dams which improve the safety of



workers and visitors to the sites, and help prevent damage to the critical infrastructure.

## Security and Law Enforcement

The Region has a robust security and law enforcement program to ensure our facilities, employees, and visitors are safe and secure. Our program includes a Security Response Force and private security at Hoover Dam, as well as law enforcement support from other agencies.

Major accomplishments include:

- FY 19 – Supported a night-time field exercise at Hoover Dam conducted by the U.S. Army's Special Operations Command, providing boats and rescue divers to provide safety for Army personnel on the river.



## Field Employee Safety

In FY 19, we negotiated an agreement with the Bureau of Land Management (BLM) in Arizona to provide dispatch services for field-going personnel. Regional employees traveling to remote areas can now take along a GPS tracking device that is monitored by BLM's interagency Centralized Administrative Dispatch Office (CADO) in Phoenix. If an employee does not check in at an appointed time, CADO and the employee's supervisor can locate them using the device, communicate with them using satellite text messages, and send aid, if needed. The CADO is also used by the U.S. Forest Service, U.S. Fish and Wildlife Service, and National Park Service.





- FYs 19 & 20 – Conducted five Periodic Security Reviews and six Comprehensive Security Reviews at several Reclamation dams and canal reaches, resulting in no significant findings.
- FY 20 – Completed construction of a \$3.5 million barrier system along the roadway atop Hoover Dam to reduce the likelihood of pedestrian and moving vehicle interactions.
- FY 20 – Awarded a \$7.8 million contract for a new security entrance and inspection station on the Nevada approach to Hoover Dam to improve traffic flow, enhance security guard safety, and provide a welcoming entrance to the site.
- FY 20 – Completed work on vessel barrier security modifications for all SRP dams.
- FY 20 – Awarded a contract for an acoustic hailing device to discourage boaters, jet skiers, and the general public from coming past or tying up to the buoy line downstream of Davis Dam.
- FY 20 – Continued to operate our USAccess Credentialing Center during the pandemic to support local federal agencies' needs.

### **Program/Project Support**

Without the employees and offices that support our programs, projects, and activities, we could not successfully accomplish our mission. How we collect and analyze information, how we purchase resources, and even how we interact with each other has been revolutionized by technology – which will continue to evolve and change. The Region's information technology investments, records management, property management, and other support programs focus on

accessible, user-friendly design and promote business efficiencies which are vitally important to achieving our goals.

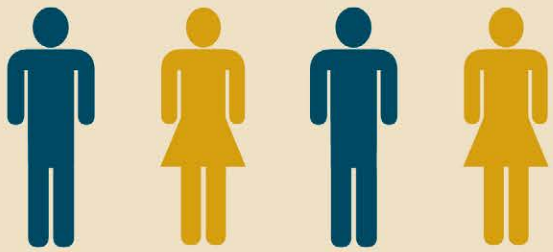
Major accomplishments include:

- FYs 19 & 20 – Addressed more than 15,000 information technology service requests, averaging approximately 25 per workday.
- FYs 19 & 20 – Processed 44 FOIA requests, releasing more than 3,000 records totaling nearly 33,000 pages, and trained more than 120 Regional employees in the use of the Interior Department's Electronic Content System.
- FYs 19 & 20 – Oversaw the secure shredding of more than 37 tons of paper to be turned into home insulation.
- FYs 19 & 20 – Handled more than 8,300 pieces of mail and processed nearly 4,000 FedEx packages.
- FYs 19 & 20 – Completed more than 500 large print requests to support mission needs.
- FYs 19 & 20 – Oversaw the acquisition, tracking, and disposition of approximately 3,800 accountable asset items valued at about \$40 million, including more than 200 vehicles.
- FYs 19 & 20 – Annually accounted for real property including 229 buildings, totaling 1.1 million square feet with a total replacement value of nearly \$191 million, and 398 structures with a total replacement value of more than \$23 billion.
- FY 20 – Distributed 120 “loaner” laptops for remote assignments and telework during the pandemic and extended service hours to support multiple work schedules.



# WORKFORCE SNAPSHOT

as of September 30, 2019



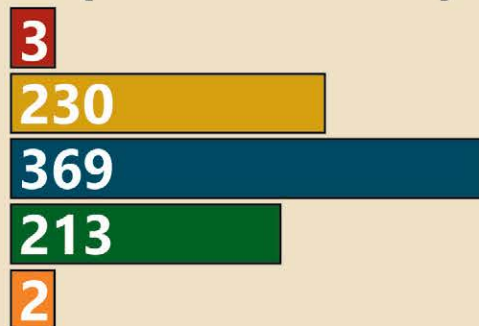
**66%**

542 males

**34%**

275 females

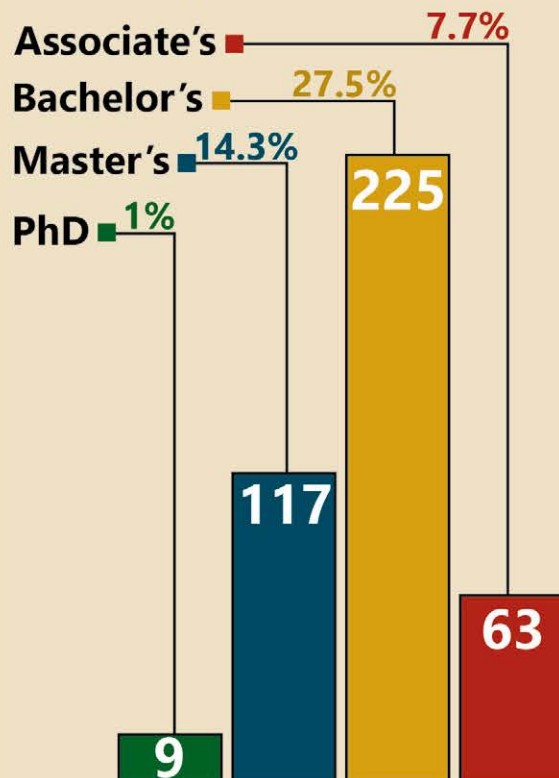
## GENERATION (AGE GROUPS)



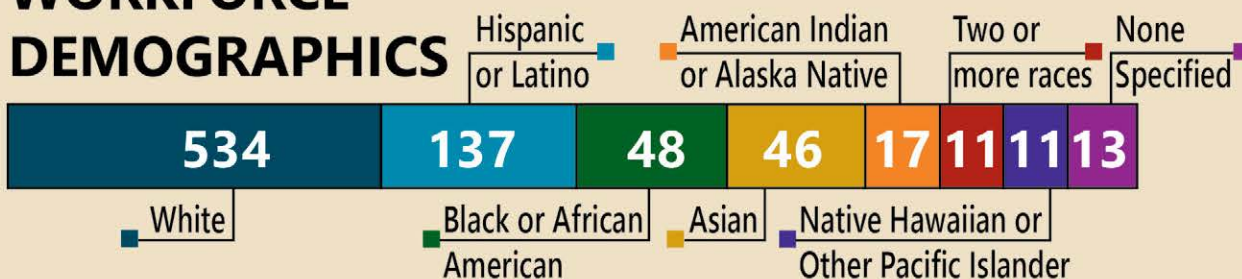
- Traditionalists (1922 - 1945)
- Baby Boomers (1946 - 1964)
- Generation X (1965 - 1980)
- Generation Y (1981 - 1997)
- Generation Z (1998 - 2014)

## EDUCATION

817 – High school or equivalency  
414 – College Degrees



## WORKFORCE DEMOGRAPHICS





## The Human Element

We strive to create a strong connection between each employee's responsibilities and the Region's mission. Employee engagement fosters a culture of respect, accountability, cooperation, and collaboration, and, thus, creates a productive and rewarding work environment.

## Employee Development

Our Equal Employment Opportunity and Human Resources professionals employ forward thinking strategies to ensure the Region attracts, selects, develops, and retains talented individuals with the technical and professional skills to meet our mission. We have created a high-performing, results-oriented and inclusive environment to achieve meaningful results by addressing skill gaps and developing a highly skilled workforce. We conduct vigorous outreach, integrate competency models in leadership and development, and conduct both on-site and virtual training based on needs assessments and course evaluations.

Major accomplishments include:

- FY 19 – Delivered more than 200 hours of sessions to employees that focused on effective communication, time management, conflict management, and emotional intelligence behaviors. Additionally, conducted 15 training sessions specifically targeting supervisory development for more than 60 regional leaders.
- FYs 19 & 20 – Hosted 28 DOI University classes – both on-site and virtually – that were attended by more than 380 students representing 12 bureaus.
- FY 20 – Coordinated the attendance of 160 employees in a Department-wide

training opportunity for “Intergenerational Sensitivities and Bystander Intervention” hosted by DOI University.

- FY 20 – Coordinated with various partners to shift more than two dozen planned on-site trainings to virtual delivery options due to the pandemic.

## Recruitment and Career Skills Outreach

We recognize that it is critically important that we engage, integrate, and educate the next generation of workers to inform them on what we do and why.

Major accomplishments include:

- FY 19 – Supported 879 students from 65 schools during the Southern Nevada Regional Student Model Bridge Building Contest.
- FY 19 – Provided expert speakers at local schools to share knowledge about Reclamation careers and hosted federal employment application workshops for college and high school students.
- FYs 19 & 20 – Mentored at-risk students, and assisted them with resume building, interview skills, USAJobs navigation, and a variety of employment-related skills.
- FYs 19 & 20 – To improve diversity and inclusion, and increase employment of veterans, individuals with disabilities, Youth in the Great Outdoors, etc., participated in 37 outreach activities including job/careers fairs, and connected with nearly 2,300 traditional students and youth between the ages of 18-25, recent graduates, veterans, military spouses, and multiple targeted special emphasis

candidates in underrepresented and diverse populations.

- FYs 19 & 20 – Employed 30 students as part of 8-week Summer Internship programs to provide youth with opportunities to explore federal positions while continuing their education.



## External Outreach

In addition to educational outreach activities, we participate in many events that encourage new generations to connect with the natural resources we manage. We also connect to the public through diverse media, ranging from interviews with news outlets, updates to our Internet pages, and providing tours of our facilities.

Major accomplishments include:

- FY 19 – Encouraged new generations to connect with the natural resources we manage at three large community events (Get Outdoors Nevada Day, Las Vegas Science Festival, and Life and Death Festival–Día de los Muertos) and other public outreach and educational events.
- FY 19 – Featured Reclamation’s mascot, Otto Otter, at several Yuma community events to highlight river and canal safety and hosted local junior high schools and colleges in Yuma Desalting Plant tours.
- FY 19 – Participated in the Yuma Water Festival for nine local schools with more than 500 students, to educate students on the science of groundwater, the water cycle, and the watershed.
- FY 19 – Supported 720 volunteers in the San Diego River Park Foundation’s Clean and Green river cleanups and invasive species removal campaigns.
- FY 19 – Supported “Catch A Special Thrill” (C.A.S.T.) for Kids events at Lake Mead and Lake Pleasant.
- FYs 19 & 20 – Hosted Hoover Dam tours for more than 5,000 students.
- FYs 19 & 20 – Processed more than 250 media inquiries, hosted nearly 30 media tours of Hoover Dam, and provided assistance to the public over 500 times.
- FYs 19 & 20 – Planned and supported major events, including the signing of the Drought Contingency Plans in May 2019 and a memorandum of understanding among the Bureau of Reclamation, Department of Energy, and the U.S. Army Corps of Engineers on Hydropower Day in August 2020.



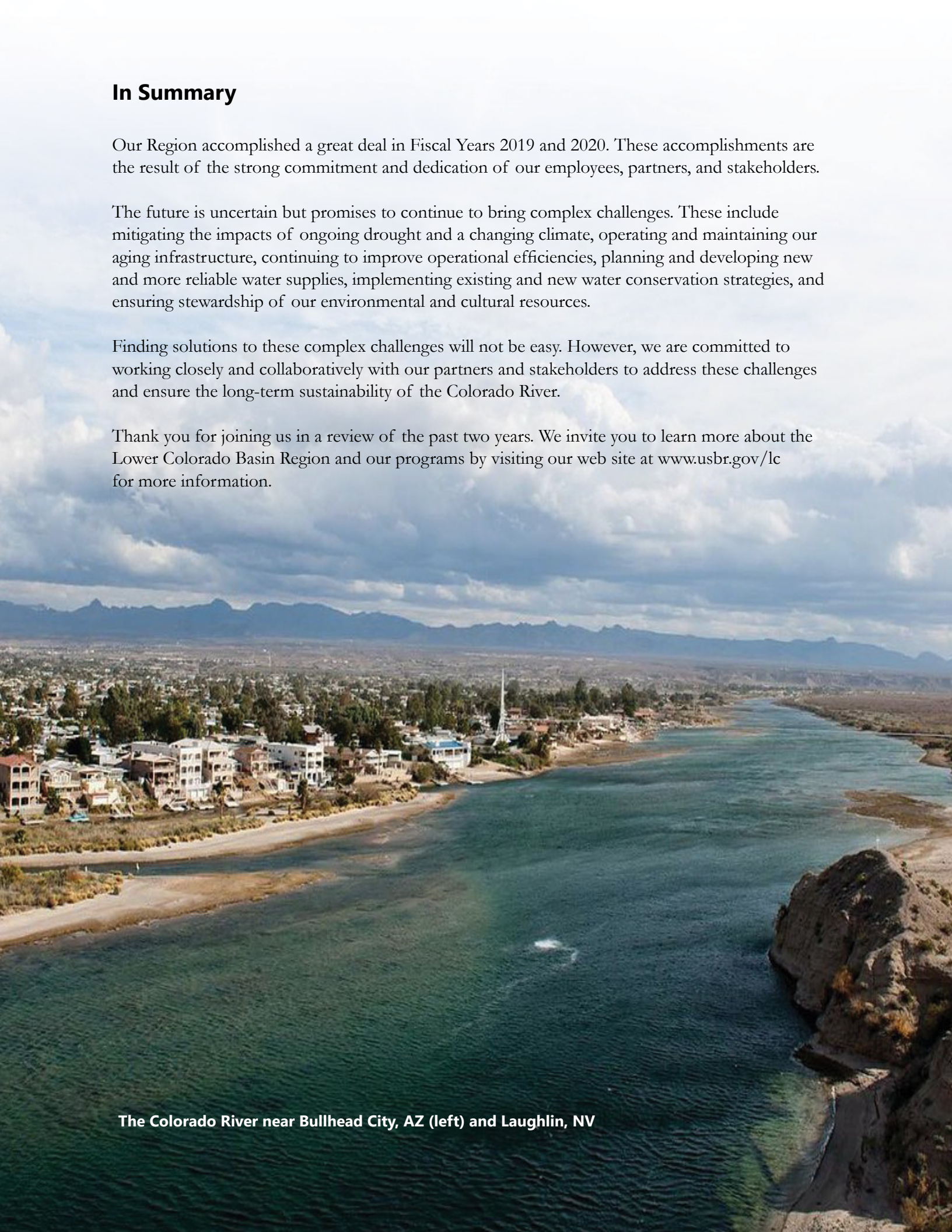
## In Summary

Our Region accomplished a great deal in Fiscal Years 2019 and 2020. These accomplishments are the result of the strong commitment and dedication of our employees, partners, and stakeholders.

The future is uncertain but promises to continue to bring complex challenges. These include mitigating the impacts of ongoing 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, implementing existing and new water conservation strategies, and ensuring stewardship of our environmental and cultural resources.

Finding solutions to these complex challenges will not be easy. However, we are committed to working closely and collaboratively with our partners and stakeholders to address these challenges and ensure the long-term sustainability of the Colorado River.

Thank you for joining us in a review of the past two years. We invite you to learn more about the Lower Colorado Basin Region and our programs by visiting our web site at [www.usbr.gov/lc](http://www.usbr.gov/lc) for more information.



**The Colorado River near Bullhead City, AZ (left) and Laughlin, NV**



A large, reddish-brown rock formation with a river and a rafting party at the base. The rock face is composed of vertical, layered strata, showing signs of weathering and erosion. The river is dark and calm, reflecting the sky. A group of people in a blue raft are visible on the river. The overall scene is a dramatic landscape of a river canyon.

## Supplemental Materials

**Rafting on the Colorado River**





BUREAU OF RECLAMATION

# Interior Region 8:

### DOI Western Regions



- Utu Utu Gwaitu Paiute
- Bishop Paiute
- Big Pine Paiute
- Fort Independence Paiute
- Lone Pine Paiute-Shoshone

- Death Valley
- Timbi-sha
- Shoshone

NEVADA

CALIFORNIA

PACIFIC OCEAN

**Legend**

- Cities
- ★ Regional Headquarters
- ◆ Area Office
- Dam with powerplant
- Dam without powerplant
- Other powerplant
- - - Canals / Aqueducts
- ~ Rivers
- Lakes / Reservoirs
- - - Region 8
- Tribes
- Lower Colorado Hydrologic Basin
- States

### Southern California Tribes

- |                    |                        |
|--------------------|------------------------|
| 1 Agua Caliente    | 16 Morongo             |
| 2 Augustine        | 17 Pala                |
| 3 Barona           | 18 Pauma and Yuima     |
| 4 Cabazon          | 19 Pechanga            |
| 5 Cahuilla         | 20 Ramona              |
| 6 Campo            | 21 Rincon              |
| 7 Capitan Grande   | 22 San Pasqual         |
| 8 Ewiiapaayp       | 23 Santa Rosa Cahuilla |
| 9 Inaja and Cosmit | 24 Santa Ysabel        |
| 10 Jamul           | 25 Soboba              |
| 11 La Jolla        | 26 Sycuan              |
| 12 La Posta        | 27 Torres-Martinez     |
| 13 Los Coyotes     | 28 Twenty-Nine Palms   |
| 14 Manzanita       | 29 Viejas              |
| 15 Mesa Grande     |                        |

Regional HQ  
Lower Colorado Dams Office

Lake Mead  
Hoover Dam  
Lake Mohave  
Davis Dam

Fort Mojave  
Lake Havasu  
Chemehuevi City

Parker Dam  
Lake H

Blythe  
Colorado R Indian Trib

Senator Wash Dam  
Imperi

Siphon Drop  
Laguna D

Quechan  
Yuma Area

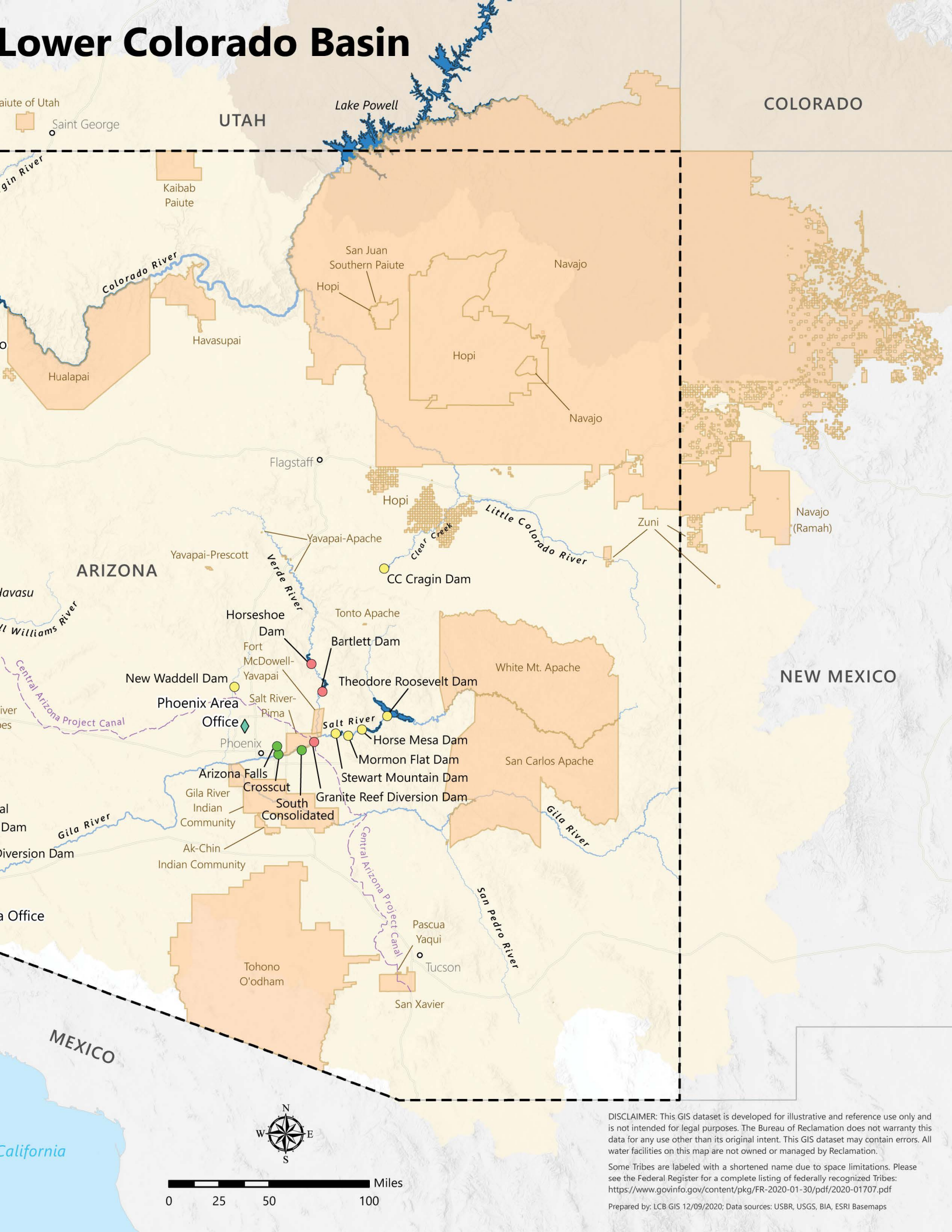
Brock Reservoir  
Cocopah

La Cienega de Santa Clara

Golfo de C



# Lower Colorado Basin



DISCLAIMER: This GIS dataset is developed for illustrative and reference use only and is not intended for legal purposes. The Bureau of Reclamation does not warranty this data for any use other than its original intent. This GIS dataset may contain errors. All water facilities on this map are not owned or managed by Reclamation.

Some Tribes are labeled with a shortened name due to space limitations. Please see the Federal Register for a complete listing of federally recognized Tribes: <https://www.govinfo.gov/content/pkg/FR-2020-01-30/pdf/2020-01707.pdf>

Prepared by: LCB GIS 12/09/2020; Data sources: USBR, USGS, BIA, ESRI Basemaps



# Fiscal Years 2019 & 2020 Lower C

Patricia Aaron · Patrick Abbott · Harris Abellon · Angela Adams · Pamela Adams · Bruce Agostinelli · Elissa Aguilar · Dianna Aispuro · Bryson Akiona  
Genevieve Allan · Megan Allen · Celestino Altamirano · Jesus Alvarado · Aimee Amador · Cort Ancman · Jeffrey Anderson · Laken Anderson  
Tracy Anderson · Marco Angulo · Angela Aniasco · Marwan Aouad · John Arcenas · David Arend · Michael Arend · Randolph Argote · William Arndt  
Larry Arnold · Jessica Asbill-Case · Andrew Ashby · Douglas Ashford · Bradley Ashwood · Patrick Atkinson · Eugene Authery · Patrick Avila · Elise Baer  
Brian Baker · Jason Baker · Micheal Baker · Sarah Baker · Scott Baker · Derek Ball · Dianne Bangle · Michael Banting · Aaron Baptista · Kara Barcomb  
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Charles Bullen · John Bun · Daniel Bunk · Taggart Bunn · James Burke · Oswin Burnett · Scott Bush · Robert Butler · Claudia Cain · Katherine Calagua  
Siegfried Calixtjan · Robert Callen-Young · Tracy Callen-Young · Tambi Calvert · John Campers · Linda Carbone · Rudy Cardona · Daniel Carr  
Jamel Carry · Reba Carter · Eric Carty · John Castaneda · Megan Castaneda · Peter Castaneda · Charles Castle · Connie Castle · Altamirano Celestinno  
Paula Cerda · Todd Chapman · Gustavo Chavarria · Arien Chavez · Christina Chavez · Joshua Chavez · Michael Chearney · Rodney Chelius  
Cynthia Choa · Thad Christensen · Alan Clabeaux · Robert Clark · Travis Clark · Olivier Clavel · Howard Clayton · Nicholas Clements · Leslie Cleveland  
Brad Cochran · Justin Cody · Nicholas Coe · Eric Collins · Kevin Collins · Jessie Conden · Manuel Contreras · Phillip Conver · Mark Cook  
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Elizabeth Covarrubias · Daniel Cowden · Michael Craig · Michael Cramer · David Crandall · Kenneth Crane · Archibald Crawford · Karen Renee Cress  
Montserrat Cristando-Romo · Gilberto Cristobal · James Crocker · Ronald Crouch · Fred Croxen · Joseph Crugnale · Drake Cruz · Querube Cruz-Mcdougall  
Luis Hernandez · Robert Cummings · Andrew Cummins · Christopher Cummins · Eric Curtis · Joseph Cusson · Meller Dacayanan · Michael Dalton  
Michael Daniel · Eric Darby · Thomas Darrohn · Brian Davis · Janard Davis · Jeannette Davis · Dale Dawson · Robert Dazzio · Nicholas Decorse  
Christopher Deeks · Peni-Nicole Dela Pena · Cory Delgado · Todd Delong · Patricia Delrose · Justin Demaio · Julian Desantiago · Preston Dickens  
Marcus Dickerson · Corey Dickson · Nancy Didonato · Leslie Dieguez · Deanna Diehn · Jeremy Dodds · Christopher Dodge · Jesucita Doering  
John Doering · Ian Donnelly · Joseph Donnelly · Thomas Downs · Robert Dubois · Jordan Dugas · Joel Dunbar · Lisa Duncan · Jeanelle Dupree  
Colleen Dwyer · GERALYNN DYKSTRA · Mark Eagleson · Richard Eastland · Michael Eaton · Christopher Edington · Joe Eldridge · Troy Elenbaum  
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Lily Fillman · Andrea Finnegan · Robert Firasek · John Fleming · Cynthia Flores · Joseph Ford · Ernest Foster · Nicole Fox · Michael Franklin  
Elizabeth Freeman · Adam Frieholtz · Karla Fritchman · Terrance Fulp · Owen Fulsome · Jason Fyffe · Meagan Fyffe · Luis Gallardo · Marc Garcera  
Angel Garcia · Glenn Garcia · Heidi Garcia · Samuel Garcia · Peter Gardner · Cindy Garibay · Shaoru Garner · Yadira Garnica · William Garrity · Jorge Garza  
Nathaniel Gee · Kathryn Gegen · Jeneen George · Bryce Geraud-Neunuebel · Christa Gerber · Maria Germain · David Gifford · Jeremy Giralde  
Cody Goering · Hazel Gomez · Leonard Gomez · Susana Gomez · Joseph Gonzales · Peter Gonzales · George Gonzalez · Noel Gormay · Tracy Gossett  
Leslie Goudie · Jacklynn Gould · Danielle Grabish · Joseph Grabish · Joseph Graef · Eric Gray · Dominic Graziani · Bryon Green · Kelli Greene  
Jeffrey Griffith · Suzanne Grinstead · Candace Grof · Raedell Grosvenor · Joel Guerrero · Michael Guerrissi · Keith Guidry · Andre Gulley · David Gundlach  
Daniel Gurrola · Angel Gutierrez · Reymundo Gutierrez · Juan Guzman · Aaron Haack · Connie Hack · Michael Hack · Harry Hairston · Geoffrey Hall  
Matthew Hall · Randall Hall · Eve Halper · John Hamamoto · Shanon Handley · Storm Hanks · Christopher Hanson · Peter Harbauer · Megan Harkins  
Maureen Harrington · Perry Harris · Thomas Harris · Mikenzie Hart · Thomas Hart · Wilbur Harthoorn · Charles Hays · Shawn Head · Sean Heath  
Nicholas Heatwole · Martin Hekmati · Douglas Hendrix · Laura Henning · Roy Henry · Jeffrey Henshaw · Manuel Hernandez · Jessica Herndon-Ladewig  
Ronald Herring · Dalenna Hessling · Charles Hibbard · Athena Higgins · John Higgins · Julian Higuera · Kalina Hildebrandt · Holly Hill · Jeffrey Hill  
Daigo Hirayama · Brian Hollandsworth · Sonia Holloway · Gabriella Holm · Teresa Holm · Michael Holmes · Nanette Holmes · Jesse Holt · Jordan Holt  
Lee Holt · Robert Holt · Joshua Hoover · Jeannie Horton · Linda Howell · Charles Hubbard · Darlene Hurlocker · Christopher Hutchinson  
Steven Hvinden · Amy Hutson · Saidee Hyder · Michael Ireland · Kenneth Isakson · Joseph Israel · Michael Jackson · Trinal Jacobo · Patrick Jacobs  
Vikki Jacobs · Roxanna Jarred-Mecue · Maria Jaurigue · Lauren Jelinek · Alice Jenkins · Carly Jerla · Bridget Johanning · Brittany Johnson · David Johnson  
Destiny Johnson · Dustin Johnson · Genevieve Johnson · Matthew Johnson · Jessie Jones · John Jorgenson · Cevonia Joshua · Joseph Kahl · Andrea Kayser  
Yasmine Kekahuna · Geoffrey Keller · Timothy Kelly · Jamaal Kennebrew · Chelsea Kennedy · David Kent · Scott Kerns · Jessica Khaya  
Raymond Kilmer · Nathanael Kingsland · Lesli Kirsch-Burke · Stephen Klingbyll · Ronald Knight · James Knowles · Edward Kromer · Junior Krows  
Gary Krzisi · Donna Krzystek · Steve Kupsak · Ricky Labistre · John Ladd · Matthew Lafave · John Lakovich · Vincent Lammers · Jeffrey Lantow



# Colorado Basin Region Employees

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Smith · Alexander D. Smith · Amoryn Smith · Jeffery Smith · Jeneal Smith · Joshua Smith · Juli Smith · Rebecca Smith · Rodney Smith · Ron Smith · Shawn Smith · Nathaniel Snively · John Sorace · Brian Sorensen · Louis Sorrentino · Brandon Sparks · Natalie Starfish · James Stauffer · Fatuma Steele · John Steffen · Jessica Stegmeier · Brian Steinle · John Stemmer · Marianne Stemmer · Matthew Stemmer · Megan Stemmer · Shane Stemmer · Amy Stephenson · Paula Stetka · Kathleen Stewart · Matthew Stewart · Richard Stewart · Thomas Stewart · William Stewart · James Stolberg · Rebecca Stolberg · Adrienne Stone · Jeffrey Stone · Faye Streier · Michael Streight · Teigan Struck · Joseph Stubit · Timothy Sullivan · Bruce Swanson · John Swatzell · Emily Swett · John Swett · Valerie Swick · Faith Swisher · Marcos Tabieros · Larry Tabita · Jason Takeshita · James Tate · Lisa Tate-Jones · James Taylor · Timothy Taylor · Aaron Tellez · Jeremy Tenorio · Freddy Terzo · Meghan Thiemann · Michael Thomas · Terri Thomas · Warren Thomas · Donald Thompson · Kevin Tibbs · Shana Tighi · Jeanette Timm · Glenn Timme · Virginia Toledo · Ithiel Torres · Pedro Torres · Ronnie Torres · Deborah Tosline · Daniel Townsend · Andrew Trader · Jeremy Tripp · Tanya Trone · Andrew Trouette · Andrew Trujillo · Phyllis Tsosie · Edith Tucker · Taiari Ubbens · Michael Udomratsak · Caïreen Uleplic · Daniel Umshler · Sandra Vaden · David Valdez · Paul Valdez · Derek Valentine · Dennis Vanryckeghem · Gustavo Varela · Douglas Varner · Laura Vecerina · Jennifer Vega · Magda Velarde · Chad Vellinga · Daniel Vernon · Jose Villalobos · Edward Virden · Nisan Vue · William Waddilow · Stacy Wade · Maria Wallior · Christopher Wallis · James Wambeke · Bart Wapler · Nathalie Washington · Zachary Waters · Ashlie Way · Henry Weckesser · Rebecca Weir · John Weiss · Valerie Weisser · Veronica Welch · Scott Wells · Crystal White · Julie White · Dwight Whitlow · Vivian Whitlow · Debra Whitney · Mark Wilkinson · Dedina Williams · Rusty Williams · Eric Willson · Mark Wilson · Nicole Wilson · Pandora Wilson · Brian Wingfield · Tanya Wirth · Troy Wirth · Edward Wisner · Amy Witherall · Corinna Wittig · Nicholas Wolf · George Wolfe · Charles Wolford · Ty Walters · Cheri Woodward · Melissa Worthen · Linda Wright-Mitchell · Damon Yabo · Tess Yamarelos · Gloria Yoakum · Abdullah Yusufzai · Gary Zahlen · Katherine Zander · Alexis Zegers · Anthony Zeppetella · Kevin Zito · Christopher Zurkan



# Regional Management Team



**Regional Director**  
Terry Fulp



**Deputy Regional Director**  
Jacklynn Gould



**Deputy Regional Director**  
Stacy Wade



**Regional Liaison**  
Sandy Eto



**Binational Program**  
Amy Witherall



**Equal Employment Opportunity Office**  
Brittany Johnson



**Lower Colorado Dams Office**  
Len Schilling



**Phoenix Area Office**  
Leslie Meyers



**Southern California Area Office**  
Jack Simes (Acting)



**Yuma Area Office**  
Terri Thomas



**Acquisitions & Assistance Management Office**  
Meagan Fyffe



**Boulder Canyon Operations Office**  
Steve Hvinden



**Engineering Services Office**  
Nathaniel Gee



**Financial Management Office**  
Jolaine Saxton



**Human Resources Office**  
Susan Mical



**Information Management Technology Office**  
John Ricker



**Lower Colorado River Multi-Species Conservation Program**  
John Swett



**Native American Affairs Program**  
Pam Adams



**Power Office**  
Dave Arend



**Public Affairs Office**  
Patti Aaron



**Resource Management Office**  
Mary Reece



**Safety & Occupational Health Office**  
Juli Smith



**Salton Sea Program**  
Genevieve Johnson



**Security Office**  
Dan Cowden

## Contact Information

### Regional Office

Lower Colorado Basin Region, Bureau of Reclamation, P.O. Box 61470, Boulder City NV 89006  
Phone: (702) 293-8000 Web site: [www.usbr.gov/lc](http://www.usbr.gov/lc)

### Boulder Canyon Operations Office

Bureau of Reclamation, P.O. Box 61470, Boulder City NV 89006  
Phone: (702) 293-8415 Web site: [www.usbr.gov/lc/4000](http://www.usbr.gov/lc/4000)

### Lower Colorado Dams Office

Bureau of Reclamation, P.O. Box 60400, Boulder City NV 89006  
Phone: (702) 494-2301 Web site: [www.usbr.gov/lc/hooverdam/lcdo.html](http://www.usbr.gov/lc/hooverdam/lcdo.html)

### Phoenix Area Office

Bureau of Reclamation, 6150 W. Thunderbird Rd., Glendale AZ 85306  
Phone: (623) 773-6200 Web site: [www.usbr.gov/lc/phoenix](http://www.usbr.gov/lc/phoenix)

### Southern California Area Office

Bureau of Reclamation, 27226 Via Industria, Ste. A, Temecula CA 92590  
Phone: (951) 695-5310 Web site: [www.usbr.gov/lc/socal](http://www.usbr.gov/lc/socal)

### Yuma Area Office

Bureau of Reclamation, 7301 Calle Agua Salada, Yuma AZ 85364  
Phone: (928) 343-8100 Web site: [www.usbr.gov/lc/yuma](http://www.usbr.gov/lc/yuma)



**The Colorado River flowing through the Grand Canyon**





