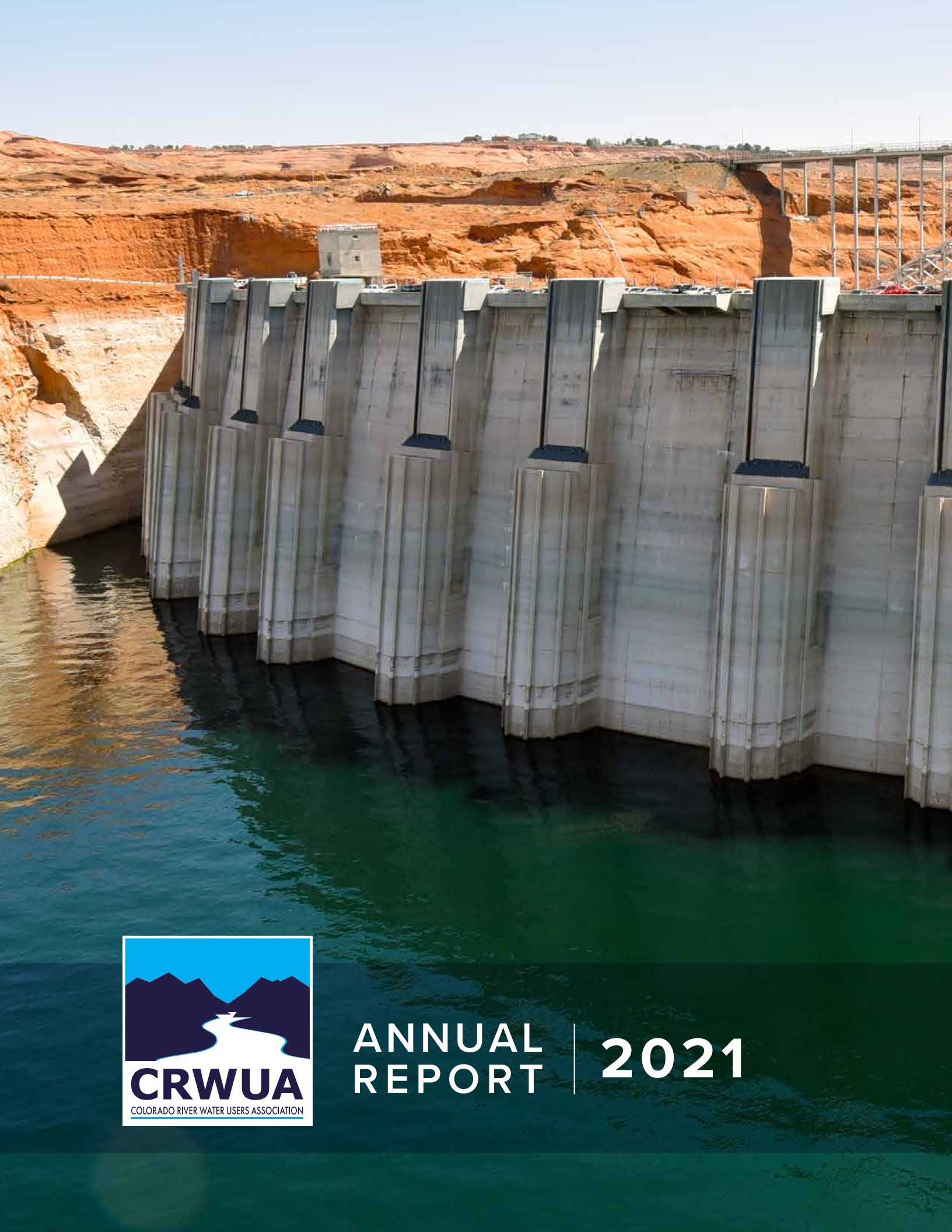


CRWUA
COLORADO RIVER WATER USERS ASSOCIATION

ANNUAL REPORT | 2021

This annual report does not contain the CRWUA membership directory because membership is based on attendance of the annual conference, which was canceled in 2020.

BACKGROUND

The Colorado River Water Users Association (CRWUA) is a nonprofit, nonpartisan organization providing a forum for exchanging ideas and perspectives on Colorado River use and management with the intent of developing and advocating common objectives, initiatives and solutions.

MISSION & RESOLUTIONS

CRWUA is an organization made up of nearly 1,000 members from throughout the upper (Colorado, New Mexico, Utah and Wyoming) and lower (Arizona, California and Nevada) basins and serves as an annual forum for openly discussing important issues on the river. The cooperative efforts that emerge from these meetings reflect the successful history of CRWUA members working together to create solutions for Colorado River challenges. CRWUA annually updates and adopts a comprehensive set of resolutions addressing the major issues affecting the sharing, use and further development of the Colorado River Basin's water supply. Resolutions can be viewed at **CRWUA.org**.

CRWUA
COLORADO RIVER WATER USERS ASSOCIATION

Arizona

PRESIDENT'S MESSAGE

When I addressed you this time last year, there was so much uncertainty surrounding the global pandemic and a dramatic shift to all the things that we came to associate with "normal" life. Despite the cancellation of our 2020 conference, along with virtually every in-person event around the world, I promised you then that we would gather again in 2021.

And here we are, with a new-found appreciation for discussions and debates, fist- and elbow-bumps, and all the dialogue and discourse that come with tackling—together—the important issues surrounding the Colorado River Basin.

We are all keenly aware that it is a new normal. Our daily working lives now include telecommuting, face masks, vaccinations, sanitizing, social-distancing protocols, and some continued level of uncertainty. Yet even the upheavals of a global pandemic cannot stop the work that needs to be done to secure the Colorado River resources we all rely on. Together, we have embarked on innovative solutions, including cost-sharing infrastructure to secure alternative water sources, and engaging private enterprises and think-tanks to develop new technologies to extend our water supplies. Thanks to the ongoing collaboration of the Basin States and our proactive Drought Contingency Plan commitments, we will be better prepared when a federal shortage declaration takes effect in 2022.

In the coming months and years, our reputation for diligence in pursing creative, collaborative solutions will be put to the test. Even with our past successes, the ongoing pressures of climate change and other dynamics impacting the drought-stricken Colorado River drive us to continually reinvent ourselves and forge ahead to make the river more secure. The work of this organization is integral to both ensuring the sustainability of the river and the livelihood of the communities that rely upon it. As the saying goes, much has been done, yet there is much to do.

As we come together to address current and future challenges along the river, it is my hope that we can pause long enough to reflect on how good it is to be truly together again.

John Entsminger
CRWUA President

PROFIT & LOSS

April 2020 through March 2021

Ordinary Income/Expense

INCOME		
Interest Income	**$**	9,523.77
Program Income		
Sponsorship		10,000.00
Membership Dues		210.00
Total Program Income		10,210.00
TOTAL INCOME		19,733.77
EXPENSE		
Contract Services		
Admin Fees		14,424.16
Total Contract Services		14,424.16
Travel and Meetings		
Exhibits Committee		10,788.71
Public Affairs Committee		8,000.00
Total Travel and Meetings		18,788.71
TOTAL EXPENSE		33,212.87
NET INCOME	**$**	**(13,479.10)**

Lake Mead

BALANCE SHEET

As of March 31, 2021

ASSETS		
Current Assets		
Checking/Savings		
US BANK	$	445,033.44
Total Checking/Savings		445,033.44
Total Current Assets		445,033.44
Other Assets		
TRONA VALLEY FCU CD		349,214.83
Total Other Assets		349,214.83
TOTAL ASSETS		794,248.27
LIABILITIES & EQUITY		
Equity		
Opening Balance Equity		448,383.61
Unrestricted Net Assets		359,343.76
Net Income		(13,479.10)
TOTAL EQUITY		794,248.27
TOTAL LIABILITIES & EQUITY	$	794,248.27

OFFICERS & TRUSTEES

OFFICERS

President – John Entsminger

Vice President - Aaron Chavez

Secretary-Treasurer - Greg Walch

Assistant Secretary-Treasurer - Mitch Bishop

TRUSTEES

Arizona
Tom Buschatzke
Ted Cooke
Elston Grubaugh

California
Bart Fisher
Glen Peterson
John Powell

Colorado
Jim Broderick
Stanley Cazier
Steve Wolff

Nevada
John Entsminger
Priscilla Howell
Sara Price

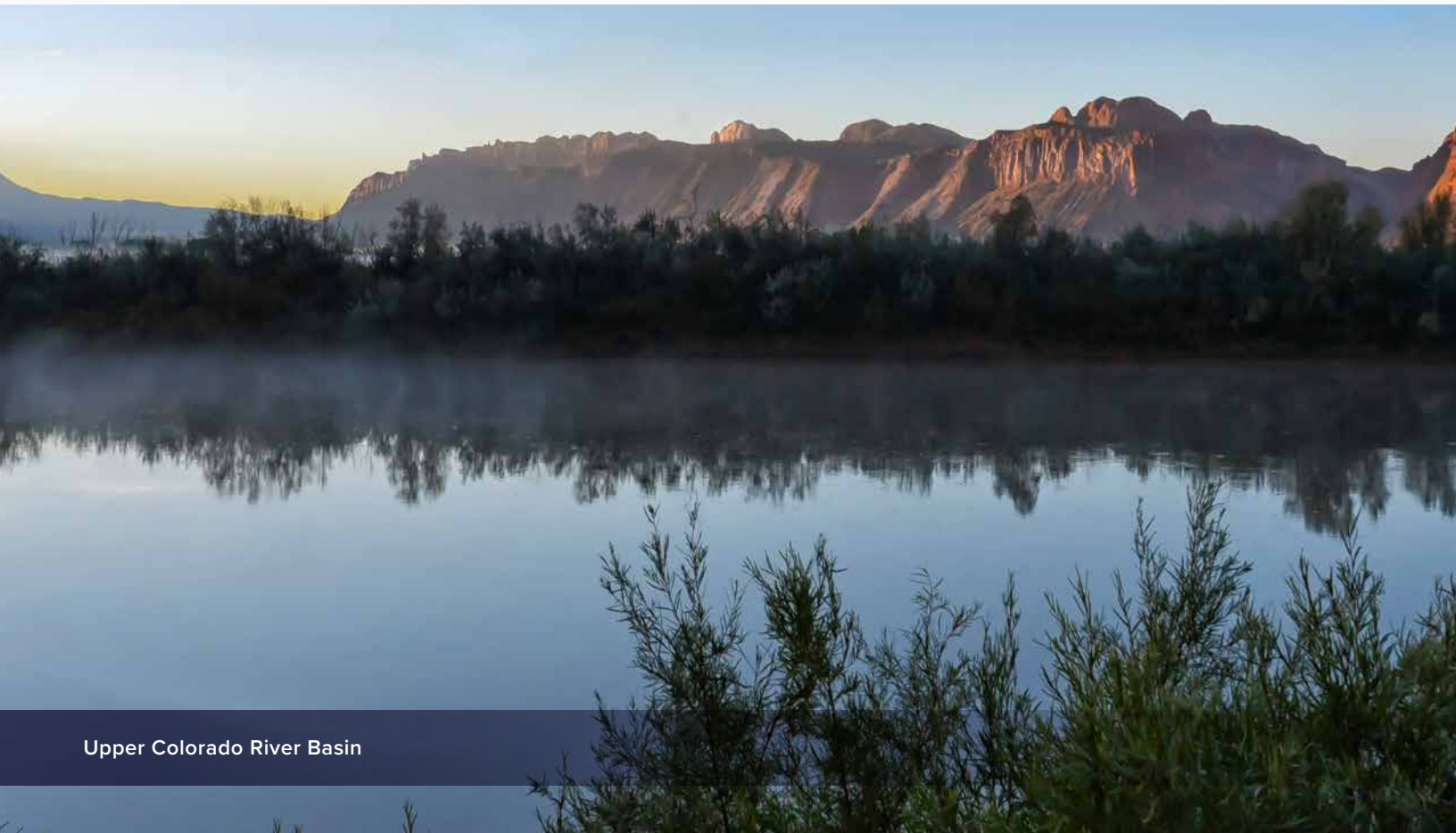
New Mexico
Aaron Chavez
Jim Dunlap
Keith Lee

Utah
Gene Shawcroft
Gawain Snow
Zach Renstrom

Wyoming
Keith Burron
Al Harris
Bryan Seppie

Ten Tribes Partnership
Rosa Long
Crystal Tulley-Cordova
Daryl Vigil

Immediate Past President
Jim Broderick



Upper Colorado River Basin

COMMITTEE CHAIRS

Audit
Chair - Glen Peterson, California
Andy Belanger, Nevada
Keith Burron, Wyoming
Keith Lee, New Mexico
Gawain Snow, Utah

Budget
Chair - Al Harris, Wyoming
Jim Broderick, Colorado
Jay Burnham, New Mexico
John Powell, California
Dave Roberts, Arizona

Exhibits
Chair - Greg Gould, Nevada
Kevin Bergschneider, Colorado
Christine Finlinson, Utah

Housing and Arrangements
Chair - Andy Belanger, Nevada
Aaron Chavez, New Mexico

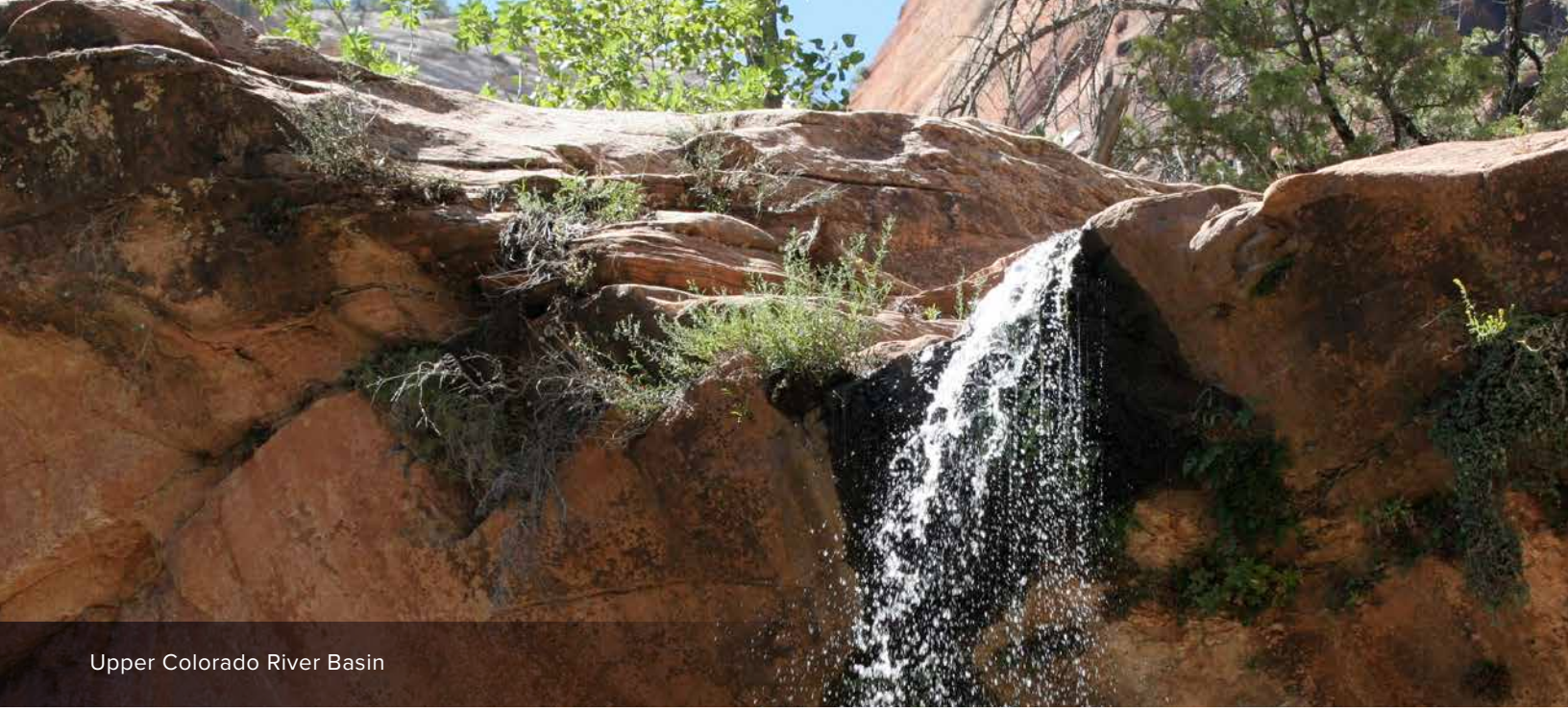
Membership
Chair - Jim Broderick, Colorado
Jacqueline Allcorn, New Mexico

Nominations
Chair - Dave Roberts, Arizona
Andy Belanger, Nevada
Charles Blassingame, New Mexico
Stanley Cazier, Colorado
Alan Harris, Wyoming

Program
Co-Chair - Christine Finlinson, Utah
Co-Chair - Bart Leeflang, Utah
Mitch Basefsky, Arizona
Mitch Bishop, Nevada
Doug Bonamici, Ten Tribes Partnership
Jim Broderick, Colorado
Jordan Bunker, Nevada
Keith Burron, Wyoming
Aaron Chavez, New Mexico
Doug Echols, New Mexico
John Entsminger, Nevada
Bart Fisher, California
Taylor Hawes, Colorado
Jeanine Jones, California
Edalin Koziol, Colorado
Colby Pellegrino, Nevada
Crystal Tulley-Cordova, Ten Tribes Partnership
Debbie Vanoy, Utah
Daryl Vigil, Ten Tribes Partnership

Public Affairs
Chair - Crystal Thompson, Arizona
Patti Aaron, Bureau of Reclamation
Teresa Garcia, New Mexico
Becki Bryant, Bureau of Reclamation
Bruce Hallin, Arizona
Scott Huntley, Nevada
Robert Kirk, Ten Tribes Partnership
Bob Muir, California
Karry Rathje, Utah
Bryan Seppie, Wyoming
Jeff Stahla, Colorado

Resolutions
Chair - Wade Noble, Arizona
Steven Anderson, Nevada
Nathan Bracken, Utah
Keith Burron, Wyoming
Aaron Chavez, New Mexico
Joanne Curry, Ten Tribes Partnership
Morgan Drake, Utah
Jim T. Dunlap, New Mexico
Sandra Fabritz, Arizona
Jeff Gray, Arizona
Jared Hansen, Utah
Gary Hathorn, New Mexico
Laura Lamdin, California
Rosa Long, Ten Tribes Partnership
Tom Maher, Nevada
Lee Miller, Colorado
John Morris, California
Jessica Newland, Arizona
Zach Renstrom, Utah
Bridget Schwartz-Manock, Arizona
Meghan Scott, Arizona
Grant Smedley, Arizona
Liz Taylor, New Mexico
Lisa Yellow Eagle, Ten Tribes Partnership



Upper Colorado River Basin

RECLAMATION

The Colorado River Basin continued to face multiple challenges in 2021, including the persisting COVID-19 pandemic, severe wildfires and enduring poor hydrologic conditions.

2021 marked the 22nd consecutive year of drought in the Basin and saw both Lake Powell and Lake Mead reach their lowest levels since they originally filled.

The Bureau of Reclamation recognizes the impacts of drought to partners, tribes, fisheries, wildlife, and communities across the West and is leveraging the best available science to maximize the efficient use of Colorado River water. It also is prepared to adopt further actions to protect the elevations of Lake Powell and Lake Mead.

The 2007 Interim Guidelines, Minute No. 323, and the Drought Contingency Plans (DCPs) give us a solid foundation for our short-term operations through 2026, and Reclamation is committed to collaborating with all our partners across the Basin as we work toward a viable future.

Colorado River Basin Conditions

The Upper Colorado Basin Region (UCBR) experienced an exceptionally dry spring in 2021, with April to July runoff into Lake Powell totaling just 26% of average. Water year 2021 unregulated inflow into Lake Powell—the amount that would have flowed to Lake Mead without the benefit of storage behind Glen Canyon Dam—was approximately 32% of average. Total Colorado River system storage at the end of the 2021 water year (Sept. 30, 2021) was 39% of capacity, down from 49% at the same time in 2020.

Consistent with the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines), Reclamation's August 2021 24-Month Study set the operational parameters for Lake Powell and Lake Mead for 2022. The August study projected Lake Powell's Jan. 1, 2022, elevation to be 3,535.40 feet. Lake Mead's Jan. 1, 2022, elevation was projected to be 1,065.85 feet, about 10 feet below the shortage determination threshold of 1,075 feet. Based on these projections, Lake Powell is operating in the Mid-Elevation Release Tier in water year 2022 (Oct. 1, 2021 – Sept. 30, 2022) and Lake Mead will operate in a first-ever Level 1 Shortage Condition during calendar year 2022, with water delivery reductions to Arizona, Nevada and Mexico in the amounts of 320,000 acre-feet, 13,000 acre-feet and 50,000 acre-feet, respectively.

Implementation of the Drought Contingency Plans and Drought Response Operations

In 2019, the Upper Basin and Lower Basin DCPs were signed and approved by Congress. The DCPs outline strategies to address the ongoing historic drought in the Colorado River Basin.

The Drought Response Operations Agreement (DROA) is one element of the Upper Basin DCP.

Under the emergency provision of the DROA, Reclamation started supplemental water releases in July 2021 to Lake Powell from the upstream reservoirs of Flaming Gorge, Blue Mesa and Navajo. These releases were designed to deliver up to 181,000 acre-feet of water from these initial units of the Colorado River Storage Project from July through December 2021.

Reclamation continues to closely monitor hydrologic conditions and projections and is working with Upper Basin states on a Drought Response Operations Plan if additional water releases under DROA are necessary in 2022 and beyond to protect critical elevations at Lake Powell.

Consistent with the Lower Basin DCP, Arizona and Nevada made water savings contributions of 192,000 acre-feet and 8,000 acre-feet, respectively, in calendar year 2021. Because Lake Mead was projected to be below the Lower Basin DCP elevation threshold of 1,090 feet on Jan. 1, 2022, Arizona and Nevada will again make water savings contributions to Lake Mead totaling 200,000 acre-feet in calendar year 2022. Consistent with the Binational Water Scarcity Contingency Plan under Minute No. 323, Mexico will contribute 41,000 acre-feet of water savings to Lake Mead in calendar year 2021 and 30,000 acre-feet in calendar year 2022. These water savings contributions are in addition to the shortage reductions.

Pilot System Conservation Program Report to Congress

In 2021, Reclamation provided a report to Congress that evaluated the effectiveness of the Pilot System Conservation Program (Pilot Program) through 2019. The Pilot Program tested new approaches to conserve water in the Colorado River System. Water conserved as a result of the Pilot Program was for the sole purpose of increasing storage levels in Lake Powell and Lake Mead and did not accrue to the benefit or use of any individual water user. According to the report, the Pilot Program successfully demonstrated that voluntary, compensated water conservation projects can preserve water in the Colorado River System and help mitigate the impacts of drought. The report concluded that widespread interest in system conservation activities and the lessons learned by participating parties through the Pilot Program will serve as a platform for future collaboration on system conservation activities and help mitigate drought in the Colorado River Basin. The Department of the Interior supports such activities and recommends they be continued.

Review of the 2007 Interim Guidelines

Consistent with Section XI.G.7.D. of the 2007 Interim Guidelines Record of Decision, Reclamation reviewed the implementation of the guidelines (7.D. Review). The review offers a retrospective of past operations and actions under the 2007 Interim Guidelines and is not a consideration of future activities. Through this 7.D. Review, Reclamation built a solid technical foundation that informs future consideration of operations and brings partners, stakeholders and the public to common understanding of past operations and their effectiveness. The 7.D. Review was completed in December 2020.

COVID-19 Response

Due to the COVID outbreak, Reclamation adapted operations to keep employees and the public safe and adopted a “protect the pilot” plan to protect critical dam operations staff from infection while still maintaining essential functions. Elements of the plan included staggered shifts, reduced crew sizes, controlled access, sanitization between shifts, back-up and remote operations, and use of virtual meetings through a secure internet connection.

Parria Riffle, Arizona

Lake Nighthorse Reservoir, Colorado

The visitor centers at Hoover Dam, Glen Canyon Dam and Flaming Gorge Dam were closed in March 2020 in response to COVID. In 2021, Glen Canyon Dam Visitor Center remained closed. Hoover Dam Visitor Center re-opened at 25% capacity and remained closed for tours. Flaming Gorge Dam Visitor Center operated from May to mid-October 2021 at 25% capacity but did not offer tours. These efforts allowed work and public visitation to continue and protected against the spread of COVID.

Technical Modeling of the Colorado River System

Reclamation's Upper and Lower Colorado Basin Regions use two reservoir operation models for annual, mid- and long-term planning. The Colorado River Mid-term Modeling System and the Colorado River Simulation System are comprehensive models of the Colorado River system using the RiverWare™ commercial river modeling software, developed by the Center for Advanced Decision Support for Water and Environmental Systems at the University of Colorado Boulder. The models are updated and maintained continually by Reclamation's Upper and Lower Colorado Basin Regions.

WaterSMART Financial Assistance

Reclamation continues to work cooperatively with states, tribes and local communities through the WaterSMART Program as it plans for and implements actions to increase water supply and promote water conservation. In 2021, Reclamation selected 125 projects to be funded with $64.6 million in WaterSMART funding across the western states. Reclamation announced the investment of $15.4 million to help communities mitigate drought and climate change impacts in the western United States.

Fifty-five new projects were selected to receive a total of $42.4 million to conserve and use water more efficiently. Reclamation announced $2.1 million for 11 collaborative watershed management projects developed by groups and stakeholders working together to address critical water supply needs and water quality concerns. Reclamation selected seven new water marketing strategy grants to receive a total of $1.1 million. Reclamation also established or expanded watershed groups, DCPs and water management option pilot programs.

Hydropower

In February, during the extreme cold weather in Texas, and again in June, during an extreme heat wave in the Southwest, Reclamation increased hydropower generation at Hoover and Davis dams in response to these electrical emergencies and to help stabilize the grid. Reclamation adjusted water schedules so the dams could respond rapidly to electrical system emergencies and swings in demand.

Reclamation owns and operates 12 hydropower plants in the Colorado River Basin with a total capacity of 4,200 MWh. The two largest dams in the basin, Hoover and Glen Canyon, produce about 75% of that energy. Power generated at the Basin's hydropower dams is marketed by the Western Area Power Administration.

Since 2000, drought conditions have reduced total Basin hydropower generation by 13%, to an annual average of 10.5 million MWh. Because of the severity of the drought over the last two years, hydropower generation is projected to decrease by an additional 20%, to 8.4 million MWh in 2022-23.

The 2020 Hydropower Memorandum of Understanding (MOU) and resulting Action Plan, released on June 2, will enhance collaboration and coordination across the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy, the U.S. Department of the Interior's Bureau of Reclamation and the Department of the Army through the U.S. Army Corps of Engineers. These three agencies create opportunities to align collective efforts and utilize expertise across agencies for federal hydropower customer participation. The Action Plan details various proposed projects within five topic areas: asset management; value of hydropower; workforce; water supply reliability; and environmental outcomes. The interagency project teams also will help inform the signatory agencies on potential future MOU projects such as research and case studies to benefit the federal hydropower program. The Action Plan is considered an evergreen document that will be updated as needed to reflect any notable changes in projects' direction or scope.

The UCBR awarded a lease of power privilege (LOPP) to the Orchard Mesa Irrigation District and Grand Valley Water Users Association to develop a new non-federal hydroelectric powerplant on the Grand Valley Project in Colorado. The existing Grand Valley Powerplant has reached the end of its operational life span and will be decommissioned upon the startup of the new Vinelands Power Plant. Negotiations on the LOPP contract are still taking place and construction began in the fall of 2021 with initial startup expected in the fall of 2022.

Fulfillment of Reclamation's Tribal Trust Responsibilities

Tribal engagement and consultation were at the forefront of Reclamation's Colorado River activities in 2021. In February, Reclamation and the Inter-Tribal Council of Arizona executed an MOU to establish the Colorado River Roundtable to engage Arizona tribes in intra-Arizona Colorado River shortage discussions. The goal of the MOU is to foster an open dialogue with Arizona tribes that will provide data and other information to inform decision making for individual tribes. In addition to the roundtable, communication with all Lower Basin tribes was initiated to ensure Reclamation meets both its contractual and trust responsibilities for Colorado River operations and tribal water deliveries.

The Ten Tribes Partnership, a coalition of Upper and Lower Basin mainstem Colorado River tribes, and the Water & Tribes Initiative also are coordinating with their constituents to inform decision-making on Colorado River operations.

Reclamation continues to build tribal water infrastructure authorized pursuant to Indian water rights settlements approved by Congress. The Lower Colorado Basin Region (LCBR) provided about $13.7 million in 2021 for Native American Water Rights Settlement Projects authorized pursuant to the Arizona Water Settlements Act and the Claims Resolution Act.

In the LCBR, 28 Native American tribes in Arizona, California, Nevada and Utah were consulted to help identify and protect cultural and historic resources on Reclamation lands. About 2,000 acres of land were inventoried along the Salton Sea for dust abatement and revegetation projects, and Reclamation continued to work with tribes on numerous cultural resource projects within the region.

In the UCBR, Reclamation continues to make great progress on the Navajo-Gallup Water Supply Project, making the first drinking water deliveries on the Cutter Lateral. The Cutter Lateral Water Treatment Plant (CLWTP) construction was completed in October 2020 and, as of the end of May 2021, drinking water deliveries are being made to all Navajo Tribal Utility Authority public water systems along the U.S. Highway 550 corridor, serving eight communities in seven Navajo chapters. Drinking water from the CLWTP also was introduced to the southwestern corner of the Jicarilla Apache Nation in August, and

now a total of 6,000 people or 1,500 households are the recipients of this clean, reliable and sustainable drinking water supply. In addition, Reclamation continues to construct the San Juan Lateral along the U.S. Highway 491 corridor with our project partners, including the Block 4c-8 water transmission pipeline between Little Water and Naschitti, New Mexico, the Tooh Haltsooi Pumping Plant near the community of Sheep Springs, and the Bahastl'ah Pumping Plant near the communities of Twin Lakes and Coyote Canyon. These pumping plants will convey water through the project pipeline from the San Juan River to Navajo communities and the city of Gallup, N.M. Reclamation continues design work and intends to award the construction contract in late 2021 for the Navajo Code Talkers Sublateral that will convey water from Ya-ta-hey along State Highway 264 to the Arizona state line, and when complete will provide water to the Rock Springs and Tsayatoh chapters in New Mexico and eventually to Window Rock/Ft. Defiance communities in eastern Arizona.

Reclamation is incorporating the San Juan Generating Station (SJGS) water conveyance facilities into the project water supply, which became an opportunity when the Public Service Company of New Mexico announced plans to shut down the power plant in June 2022 and integrate into the design of the San Juan Lateral water supply. SJGS facilities, including the SJGS reservoir, will provide a consistent and high-quality water supply to the San Juan Lateral and will yield capital and operation and maintenance cost savings to previous intake options. The facilities also will reduce operational risk and increase operational flexibility by allowing the intake to reservoir storage to be shut down during poor water quality in the San Juan River.

Additionally, 2021 saw the introduction and passage of new water settlement legislation. The 115th Congress ended its session without passing the Utah Navajo Settlement legislation, so Senate Bill S. 1207 by Sen. Mitt Romney, and House Bill H.R. 644 by Rep. Rob Bishop were reintroduced in the 116th Congress. These bills included the consensus language of their predecessors and were supported by the Navajo Nation and Department of the Interior. These bills were ultimately combined with the Consolidated Appropriation Act (H.R. 133), which was approved and signed into law at the end of December 2020.

Navajo Reserved Water Rights in Utah consist of 81,500 acre-feet of depletion annually, with a maximum diversion rate of 435 cubic feet per second. The water has priority dates of 1884 and 1958 and can be marketed within the Colorado River Basin in Utah. The settlement specifies a $198.3 million water development fund along with a $11.1 million operations and maintenance fund.

Prevention of Invasive Quagga and Zebra Mussels

Every year, invasive quagga and zebra mussels cost millions of dollars in lost economic activity and cause significant environmental impacts to water bodies in the Upper and Lower basins. In fiscal year 2021, Reclamation participated in several interagency task forces focused on addressing the potential impacts of these invasive species infestations on water-related infrastructure, including Interior's Invasive Mussels Team.

LCBR provided funding support to the National Park Service for both permanent and mobile quagga mussel decontamination stations within the Lake Mead National Recreation Area, including funds to Arizona through the U.S. Fish and Wildlife Service for mandatory inspection/decontamination stations in Arizona and support to Nevada for operation of two seasonal watercraft inspection/decontamination stations in southern Nevada.

UCBR is providing financial help to the states of Utah, Colorado, Wyoming and a contractor in New Mexico to interdict and decontaminate boats with any

Glen Canyon Dam Spillway

Colorado River below Glen Canyon Dam

mussels present prior to launching in clean waters. Reclamation supported an evaluation and installation of a dip tank to decontaminate boats leaving Lake Powell. Glen Canyon Dam is continuing efforts to monitor mussel population growth, which will help determine the magnitude of the impacts and calibrate the response.

Environmental Programs

Reclamation is committed to the environmental protection in the Colorado River Basin. In July, the U.S. Fish and Wildlife Service proposed reclassifying the razorback sucker from endangered to threatened under the Endangered Species Act. This follows a similar proposal from March 2020 in which the Service proposed reclassifying the humpback chub from endangered to threatened. These proposed reclassifications are based on recent assessments showing the razorback sucker and the humpback chub are no longer in danger of immediate extinction because of recovery efforts completed by the Upper Colorado River Endangered Fish Recovery Program and San Juan River Basin Recovery Implementation Program (RIPs), the Lower Colorado River Multi-Species Conservation Program, and the Glen Canyon Dam Adaptive Management Program.

Program partners work closely to enact conservation measures such as restoring river flows through water release from reservoirs and removing non-native predators. The UC and SJ RIPs have built, operate and maintain many fish passages, fish screens and fish-entrainment barriers. The two RIPs have stocked millions of razorback suckers, Colorado pikeminnow and bonytails to help reestablish populations. Reclamation and the Upper Basin RIP work together to ensure spring flows connect with floodplain wetlands to enhance entrainment of razorback sucker larvae into these productive rearing habitats, including flow and on-the-ground floodplain wetland management. The Lower Colorado River Multi-Species Conservation Program added 29 acres of new riparian and backwater habitat, bringing the total area managed for native species to about 6,840 acres since the program began in 2005. This year, over 43,000 native fish were raised and stocked below Davis Dam, bringing the totals to about 259,000 razorback suckers and 125,500 bonytail stocked in those river reaches since the program began. Experts believe that actions taken under the programs benefit other native fishes in the basin and prevent them from becoming endangered. These actions also keep Reclamation operations in compliance with environmental regulations.

Lake Powell Pipeline Environmental Review

On Oct. 28, 2019, the Secretary of the Interior assigned Reclamation as the lead agency to analyze the impacts of the proposed Lake Powell Pipeline project in a draft Environmental Impact Statement (EIS) that was issued in June 2020. Reclamation received approximately 14,000 comments and began addressing those comments in modifying the EIS. Major modifications being made to the EIS included clarifications and additions to the existing water exchange contract; the addition of a new conservation-based alternative; updated modeling of the Colorado River conditions; analyses of water impacts down to Lake Mead; and additional analyses for key resource areas like socioeconomics, cultural and ethnographic resources, and threatened and endangered species. The new alternative will likely require additional consultation with the affected and interested tribes in the area. As project work continues, there is no formal schedule for its completion due to the uncertainty associated

Colorado River at Lees Ferry

with the timing of the proponent's coordination and collaboration with the other affected states.

Aside from Reclamation, the proponent is working with the other states in the Upper and Lower basins to come to some agreement on the legal nature of moving Upper Basin water to the Lower Basin. The proponent is adjusting its Virgin River Daily Simulation Model in response to discussions with the Basin States, and the proponent has proposed an adaptive management plan wherein no return flows reach the river. While the proponent works with the other Basin States regarding these concerns, Reclamation is moving forward with the proponent to continue to address comments, make modifications to the EIS documents, and shepherd the project to the next phase.

Salton Sea

Reclamation owns about 90,000 acres of land under and adjacent to the 375 square-mile Salton Sea, located in Southern California. The agency actively participates in California's process to manage Salton Sea resources and works closely with partners to identify and prioritize projects that help reduce dust emissions, improve water quality, restore habitat, and provide local economic development opportunities.

Safety, Security and Law Enforcement Activity

Reclamation's Safety of Dams program assigns engineers to ensure that dams, canals and other related facilities continue to operate safely and reliably. With the onset of COVID, some work was briefly delayed, but work has commenced on upgrades to Reclamation dams and facilities. New LCBR security program elements include the installation of a full-length continuous boom line at Hoover Dam to discourage boaters, jet skiers and the general public from passing or tying up to the vessel barrier line on the lake side; the completion of a $3.5 million Hoover Dam pedestrian safety project; and the expansion of this project on the Arizona side entrance roadway, just east of the dam. Among other projects were: the near completion of a $8.5 million visitor checkpoint on the Nevada side of Hoover Dam under Reclamation's fortification account; a new mass notification system to enhance emergency notifications; and the addition of two uniformed Bureau of Land Management Patrol Rangers to the LCBR Regional Law Enforcement program to provide dedicated law enforcement services on Reclamation lands in the region. The key members of the Regional Law Enforcement program coordinate on a daily basis with the U.S. Border Patrol and other federal, state, local and tribal law enforcement agencies to ensure the safety of all Reclamation staff and contractors near the southern United States border.

The UCBR Safety Team successfully completed its onsite dam safety inspections with remote support and review by regional and headquarters-level engineers to protect staff from COVID. UCBR also is replacing and upgrading the security camera systems at the Power Office's field divisions. Under this project, Glen Canyon Dam will be the first facility to upgrade from analog to digital cameras, which will provide better surveillance,

low-light capabilities, the ability to turn video into data that detects and tracks objects of interest, and other features that will enhance security measures at Reclamation's facilities. Completion of this project is scheduled during the first quarter of 2022.

Colorado River Water Quality

To address Colorado River salinity, under the 2019 Funding Opportunity Announcement (FOA), Reclamation awarded $37.2 million for 11 salinity control projects in Colorado and Wyoming through its Basin-wide and Basin States Salinity Control Programs. When the salinity control features are installed, these projects will prevent about 23,426 tons of salt from entering the river system each year. A new FOA will be posted fiscal year 2022 with an estimated $40 million to be awarded for new projects to reduce salinity.

Water quality sampling and analyses in the LCBR continued with long-term monitoring of biological and water quality conditions, although some sampling trips were cancelled due to COVID travel restrictions. Sampling trips during 2021 included four Lake Mead events and six Lake Havasu events. Reclamation collaborated with Southern Nevada Water Authority and others to make data available for water quality management decisions, studies, and modeling.

Reclamation released a Final Environmental Impact Statement (FEIS) on Dec. 11, 2020, that evaluated brine disposal alternatives at the Paradox Valley Unit. Reclamation identified "no action" as the preferred alternative. The no-action alternative includes continued operation of the PVU until it becomes no longer feasible to operate. Because the existing brine injection well is nearing the end of its useful life, Reclamation investigated alternatives for disposing of the brine.

The no-action alternative achieves the best balance among the various goals and objectives outlined in the FEIS, including optimizing costs; minimizing adverse effects on the affected environment; minimizing the use of nonrenewable resources; consistency with Bureau of Land Management Resource Management Plans; and being in the best interest of the public, including considerations of health and safety.

New technically, environmentally and economically viable alternatives may be investigated in the future to continue salinity control at Paradox Valley.

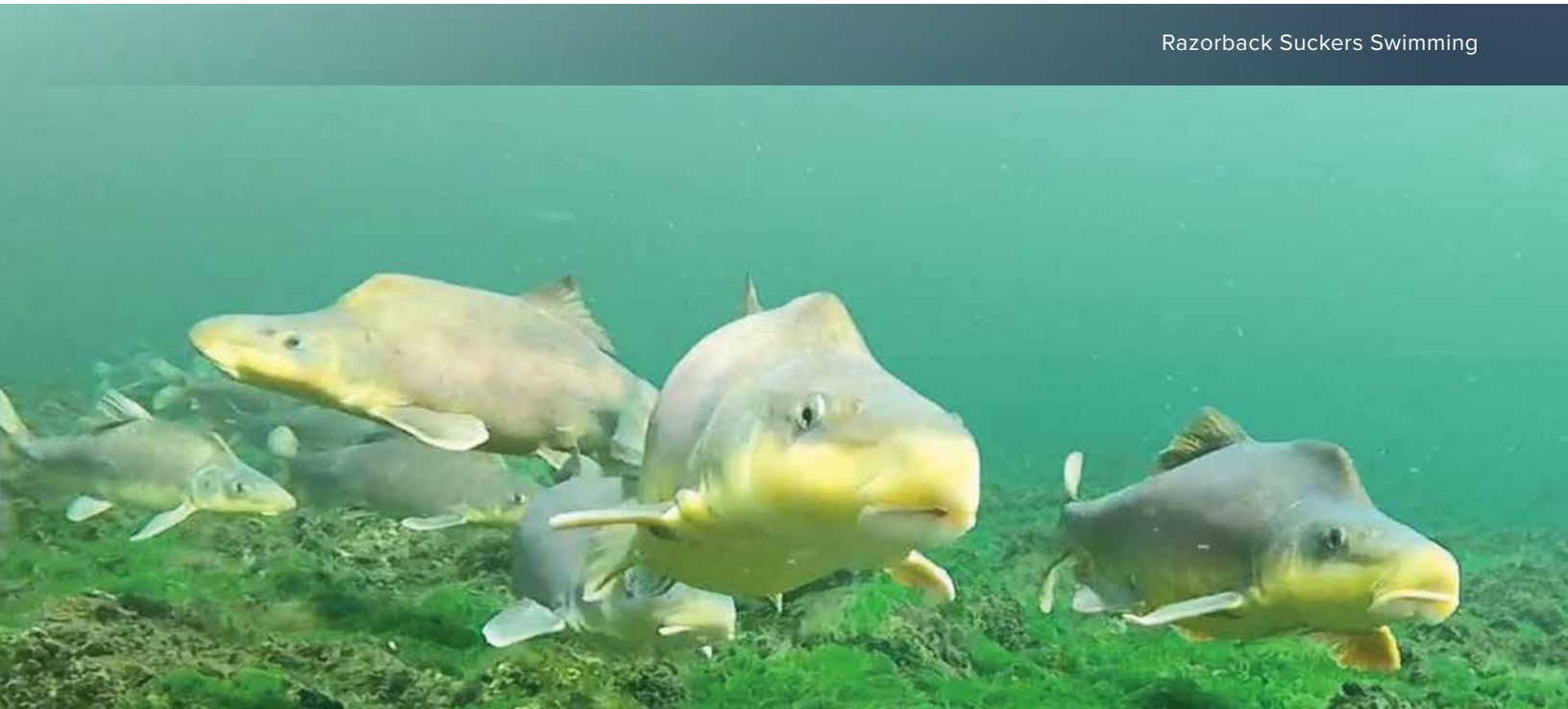
Recreation

Recreation along the Colorado River spans vast and diverse landscapes through many national parks, recreation areas, forests, and state and local parks. Reclamation lands and reservoirs are among the nation's most popular recreational areas and play a major role in meeting the increasing public demands for water-based outdoor recreation opportunities in the West.

In 2021, visitors were welcomed back at the outdoor areas at Hoover Dam and Flaming Gorge Dam, and other visitor services continued to be offered with limited capacity to protect both the public and Reclamation staff.

As Lake Powell and Lake Mead levels are projected to continue to decline in 2022, Reclamation continues to collaborate with recreation partners on safety and messaging efforts to recreationists.

Razorback Suckers Swimming



ARIZONA

Based on the Bureau of Reclamation's August 24-Month Study projections, by the start of 2022, the storage level at Lake Mead is projected to be at 1,065.85 feet above sea level. Under the terms of the 2007 Guidelines, shortage reductions and incremental Drought Contingency Plan (DCP) contributions, Arizona agreed to leave 512,000 acre-feet of its 2.8 million acre-foot annual allocation in Lake Mead once the reservoir's elevation was projected to be below 1,075 feet, a Tier 1 shortage condition.

This Tier 1 shortage will cut about 30% of Central Arizona Project's normal Colorado River supply; nearly 18% of Arizona's total River supply; and approximately 8% of Arizona's total water use.

Arizona started 2021 operating under DCP's Tier Zero, which reduced Arizona's Colorado River supplies by 192,000 acre-feet, although for several years prior to the Tier Zero declaration, Arizona water users had been voluntarily leaving up to that amount in Lake Mead.

To address these Tier 1 cuts, Arizona has a DCP implementation plan to partially mitigate the impacts. The reductions to tribal communities and municipal and industrial users will be fully mitigated with substitute water supplies or financial compensation.

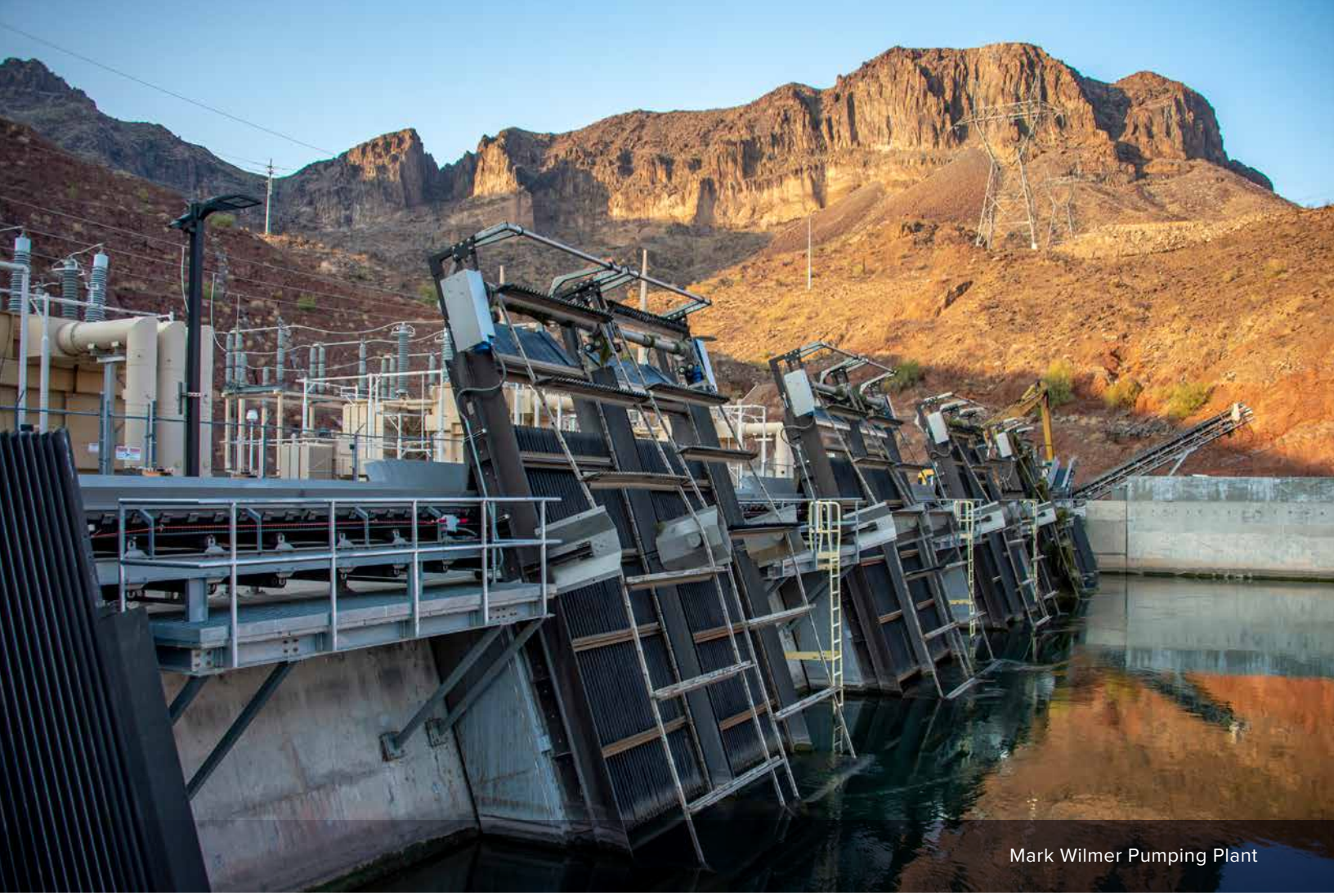
The reductions to agricultural users will be partially mitigated with substitute water supplies and money for infrastructure and efficiency improvements. The Arizona Water Banking Authority will not be mitigated.

Shortly after the Aug. 16 shortage declaration, Arizona and its Lower Basin partner states entered into discussions triggered by an adaptive-management provision in the DCP, commonly referred to as the "elevation 1,030 feet provision."

This provision requires Arizona, Nevada, California and the Department of the Interior to "consult and determine what additional measures will be taken to protect against the potential for Lake Mead to decline below elevation 1,020 feet." Actions are being developed and expected to be approved this year; the resulting program is called the 500+ Plan.

During the year, the Arizona Legislature also created a Drought Mitigation Fund and a board to administer it. The fund is designed to explore opportunities to augment Arizona's water supplies with new water from outside the state. One potential project being explored as part of the implementation of Minute No. 323 to the 1944 Mexico Water Treaty is binational desalination opportunities in the Sea of Cortez. Those discussions are ongoing.

Waddell Pump/Generating Plant



Mark Wilmer Pumping Plant

Salt & Verde Watershed

For the Salt and Verde watersheds, the 2021 water year began with extremely dry watershed conditions following a record dry 2020 summer monsoon season. Record low fall inflows from October to December in 2020 (38% of median) were recorded. Winter (Dec. 2020 to March 2021) precipitation on the Salt and Verde watershed at 55% of normal did not improve conditions. Total inflow into Salt River Project (SRP) reservoirs from the entire winter runoff season was a paltry 104,156 acre-feet, the second lowest on record. Not surprisingly, storage decreased at Roosevelt Lake during the winter from 82% full to 77% full between Oct. 1 and May 1 with the Verde reservoir system declining to 32% capacity by May 1.

The 2021 summer "monsoon" season experienced well above normal precipitation throughout the watershed. SRP reservoir inflow for July through Sept. 2021 was the 10th highest on record with 257,898 acre-feet or 233% of median. While the near-record dry winter across the watershed strengthened drought conditions and decreased reservoir levels through June, the wet monsoon significantly improved conditions throughout the watershed. SRP reservoir levels increased over the peak demand summer months (Verde Storage increased from 30% to 52% and Roosevelt remained at 68%). Heading into winter 2021, the storage on the Salt and Verde reservoir system is in good condition at 70% of capacity as of Sept. 30.

During the past year SRP, in partnership with the Bureau of Reclamation, initiated two projects to evaluate changes in operation and infrastructure needed to help adapt to expected impacts of climate change and improve water resiliency in the Phoenix Metropolitan Area: the Verde Reservoirs Sediment Mitigation Study (VRSMS) and the Roosevelt Flood Control Space (FCS) Operational Flexibility Project.

The two projects – being conducted in partnership with Reclamation and other federal and local agencies – look to leverage existing infrastructure to reduce reliance on non-renewable groundwater and manage impacts of Colorado River shortages. SRP and partners hope to be able to operate under enhanced operational flexibility in the Roosevelt FCS beginning in calendar year 2023 and initiate a feasibility study of options to modify Bartlett Dam as recommended by the VRSMS in calendar year 2022.

CALIFORNIA

As drought along the Colorado River reached its 21st year, in 2021 California grappled with unprecedented drought conditions facing its water resources. Water years 2020 and 2021 were the driest two-year sequence on record for California, exemplified when Lake Oroville – the principal reservoir on the State Water Project – reached its lowest point ever since being filled in the 1970s in August and dropped to a level that could no longer generate hydropower.

Expectations are that the California Department of Water Resources will not have any water to allocate in its initial SWP allocation for 2022. And if drought conditions continue, the state could do something it has never done before – provide only enough water as deemed necessary to protect the health and safety of Californians that receive water from the State Water Project. Under this never-before-used provision of the SWP contract, the state has indicated it would constrain water deliveries to a level that may prevent any outdoor watering.

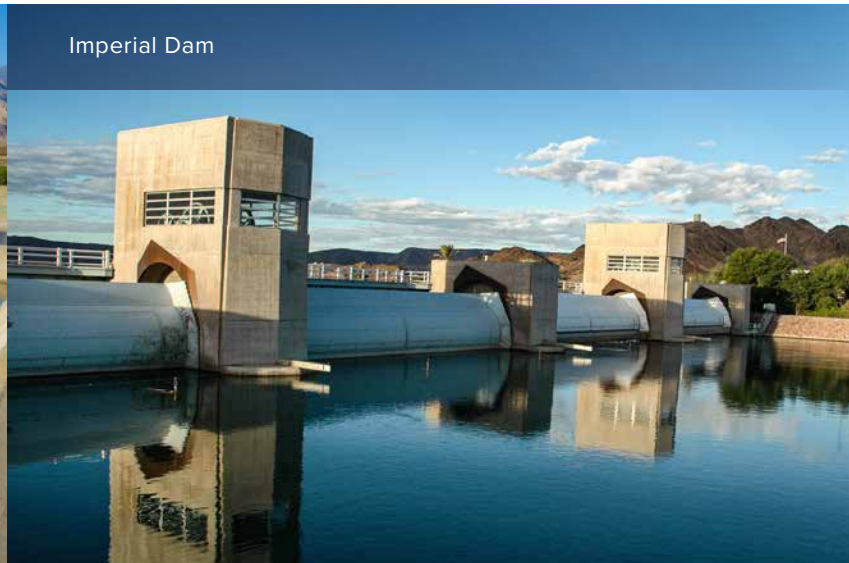
In October, Gov. Gavin Newsom expanded his Executive Order declaring a statewide drought emergency to include all citizens of California. In November, the board of directors of the Metropolitan Water District of Southern California followed up by declaring a Drought Emergency and called for increased efforts to maximize conservation, especially in communities facing the greatest challenges. The Metropolitan board action marked the latest in a series of actions Metropolitan has taken to ramp up conservation in the Southern California. In August, Metropolitan's board declared a Water Supply Alert for the region, calling for consumers and businesses to voluntarily reduce their water use and help preserve the region's storage reserves.

In August, seizing every opportunity to use Colorado River resources as efficiently and effectively as possible and to help slow Lake Mead's declining levels, water agencies across the Southwest partnered with the federal government to fund a short-term agricultural land fallowing program in the Palo Verde Valley that will conserve water on a large scale. The partnership among the U.S. Bureau of Reclamation, Metropolitan, Central Arizona Project, Southern Nevada Water Authority and Palo Verde Irrigation District (PVID) is expected to conserve up to 180,000 acre-feet of system water over the next three years, amounting to about a 3-foot increase in Lake Mead's water level.

Metropolitan reached agreement with Arizona water agencies in October to advance development of one of the largest water recycling plants in the country – a project that would help restore balance to the over-stressed river. The agreement calls for the Central Arizona Project and Arizona Department of Water Resources to all contribute up to $6 million to environmental planning of Metropolitan's Regional Recycled Water Program, a project that would purify treated wastewater to produce a new, drought-proof water supply for Southern California that could be shared with partners along the Colorado River. Southern Nevada Water Authority signed a similar agreement with Metropolitan in December of 2020. If fully developed, the $3.4 billion project would produce up to 150 million gallons daily, enough to serve more than 500,000 homes.

In September, Imperial Irrigation District (IID), California's largest agricultural user, and Metropolitan signed an agreement settling a two-year legal dispute. The agreement supports ongoing efforts to secure funding for the Salton Sea restoration and

Oasis Reservoir



Imperial Dam

Regional Recycled Water Advanced Purification Center

provides incentives for IID to conserve and store additional water in Lake Mead. The additional IID storage will not only benefit elevation building efforts at Lake Mead, but backstop IID's On-Farm Efficiency Conservation program, which has generated nearly a million acre-feet of conserved water since its 2014 rollout, by ensuring that excess conservation ultimately returns to IID's community.

Since 2003, IID has generated over 6.2 million acre-feet of conserved water from both on-farm and system efficiency programs to meet its water transfer obligations and storage objectives. IID's commitment to conservation, with program yields averaging nearly a half million acre-feet annually, will continue to enable the successful implementation of the nation's largest agriculture-to-urban water transfer, providing water supply resiliency for the benefit of California and the Lower Basin.

Coachella Valley Water District (CVWD), alongside the other Groundwater Sustainability Agencies in the region, neared completion of the 2021 Indio Subbasin Water Management Plan Update and 2021 Mission Creek Subbasin Water Management Plan Update. Both updates outline plans to meet future water demands; maintain stable groundwater levels; manage and protect water quality; collaborate with stakeholders on shared objectives; manage future costs, minimize environmental impacts; and reduce vulnerability to climate change and drought impacts. CVWD manages the groundwater basin through replenishment activities at three facilities, including the Palm Desert Groundwater Replenishment Facility, which began operations in 2019. CVWD is in the process of building the Oasis In-Lieu Recharge Project, which will reduce groundwater pumping through source substitution.

CVWD continues to engage stakeholders in the development of new programs and efforts to reduce water demand. CVWD's Agricultural Water Advisory Group includes representatives from the CVWD, the U.S. Department of Agriculture, Resource Conservation District, academia and agricultural customers. The group meets regularly to discuss studies, regulations, customer service and ideas related to water use efficiency. A similar group, the Coachella Valley Golf and Water Task Force, meets bi-monthly to discuss water use within the golf industry. CVWD also continued its rebate programs to domestic water customers, which reduces groundwater pumping and protects the groundwater basin.

PVID continued to explore additional agricultural conservation measures in the Palo Verde Valley as the district worked to complete a three-year study of deficit irrigation. Conducted by Dr. Ali Montazar of the UC Cooperative Extension program in Holtville, the study explores both water savings and impacts on crops when skipping an irrigation. If the study proves to be successful, deficit irrigation can be implemented in other places of the Colorado River Basin.

In September, Michael Mullion and Brad Robinson were elected to the PVID board, with Robinson filling the vacancy left by Danny Robinson who passed away in May. Earlier in July, Adel Hagekhalil, a national water and infrastructure leader, was named the 14th general manager in Metropolitan's 93-year history. Hagekhalil succeeded Jeffrey Kightlinger, who led Metropolitan since 2006 and maintained Metropolitan as a globally respected leader in the water industry.

COLORADO

At the end of 2020, Colorado leaders recognized that even though the largest wildfires in the state's history had been contained and controlled, their aftermath would require attention for years to come.

In total, more than 650,000 acres burned across the state of Colorado in 2020, including the two largest fires in state history.

The East Troublesome Fire, named after the Colorado River tributary near where it started, ignited on Oct. 14, 2020, well past the traditional wildfire season at that altitude in Colorado. Just more than one week later, an unprecedented windstorm drove the fire through dry terrain with alarming speed, devouring nearly 200,000 acres of forest and rangeland in the uppermost portion of the Colorado River watershed.

Elsewhere in the Colorado River Basin, the Grizzly Creek Fire consumed more than 32,000 acres in the watershed that serves as a water supply for the city of Glenwood Springs.

In 2021, the effects of those fires and others on the landscape took center stage as water managers developed plans to mitigate them and protect infrastructure that serves a large share of Colorado's population.

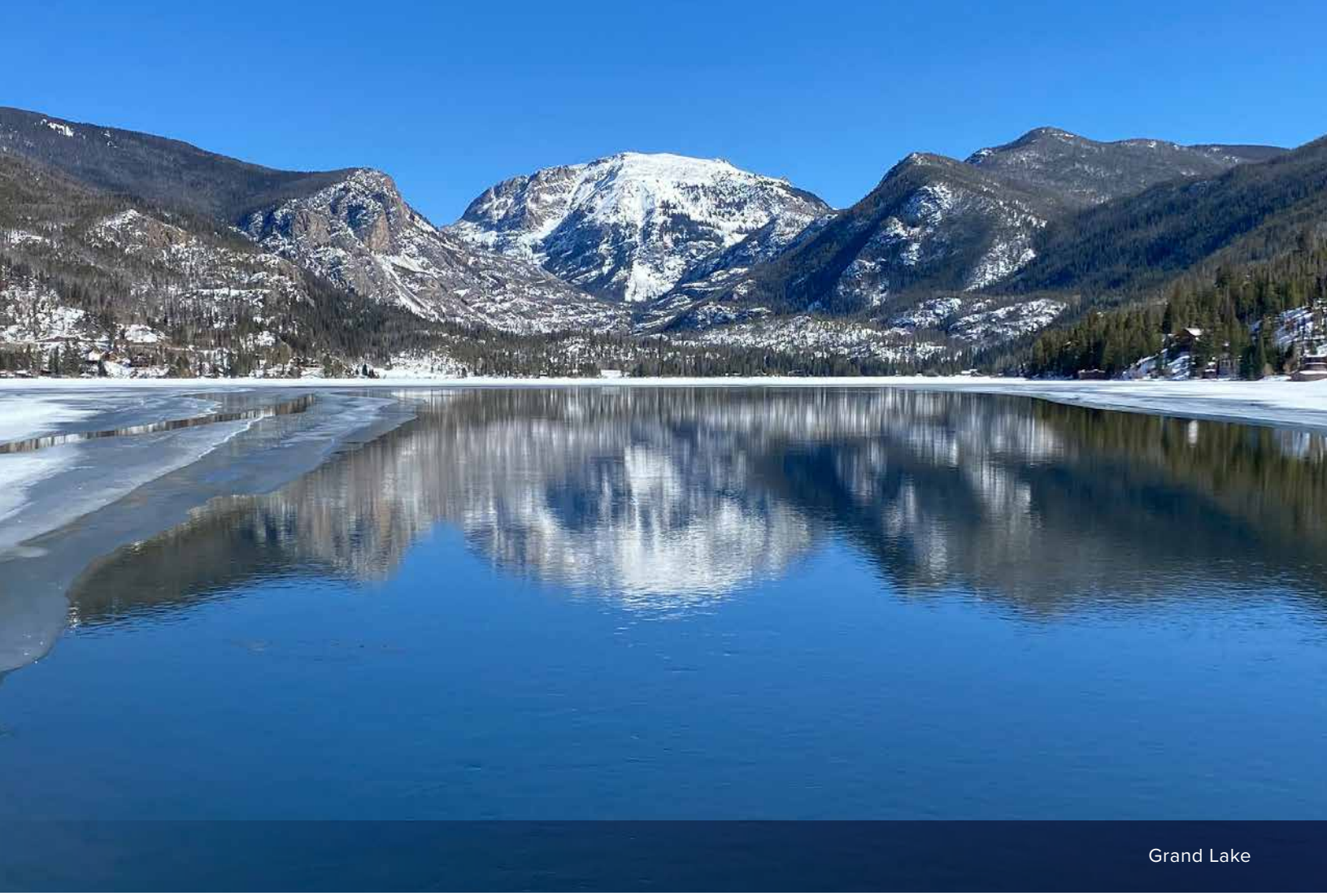
A disappointing 2020-21 snowpack, coupled with very dry soil moisture, meant the threat to water infrastructure was not from the usual spring runoff but from the monsoons that came later in the summer. As with many other locations in the American West, the summer monsoon season brought rainfall that helped to improve the overall moisture profile. However, the monsoons came at a high cost.

On July 29, a rainstorm stalled over the Grizzly Creek Fire burn scar and caused mudslides of ash and fire debris throughout Glenwood Canyon, a conduit for the Colorado River and Interstate 70, the major east-west highway in the state of Colorado. The debris carried by those mudslides forced the closure of Interstate 70 for 17 consecutive days, and the threat of additional slides prompted state officials to pre-emptively close the interstate several more times through the season, causing significant disruptions to commerce in the state.

At the same time, those slides and others from the opposite side of the Colorado River from the highway created new barriers in the river, altering its channel in places and creating concern about water quality for users downstream.

In the headwaters of the Colorado River, federal, state and local officials cooperated to stabilize the burn scar areas in critical areas. Using funds from the Emergency Watershed Protection Program offered through the Natural Resources Conservation Service, officials worked to drop stabilizing mulch on ashen

Aerial Mulching



Grand Lake

landscapes, install debris booms on West Slope storage reservoirs in the Colorado-Big Thompson Project and capture mudslides where possible on ephemeral drainages in the region.

Work will continue to mitigate fire effects well into 2022 and beyond.

Elsewhere in the state, construction work began on Chimney Hollow Reservoir, a new 90,000 acre-foot reservoir east of the Continental Divide that will firm water supplies from the Windy Gap Project at the confluence of the Fraser and Colorado rivers. Work on the $500 million reservoir should take about four years, with first fill being dependent on hydrology. In addition, mitigation work will include construction of the Colorado River Connectivity Channel to connect the river above and below Windy Gap Reservoir. Final design for that project will occur in 2022, with construction taking place in 2022 and 2023.

Reclamation and the Southeastern Colorado Water Conservancy District are moving ahead with the Arkansas Valley Conduit (AVC). To date, the AVC has $40 million in federal funding, with $10 million expected in FY2022. The Colorado Water Conservation Board has committed another $90 million in loans and $10 million in grants over the 15-year construction period. Total cost is estimated to be about $600 million for 250 miles of pipeline. Contract negotiations for the project are scheduled for late 2021, and construction will begin in 2022.

The Colorado State Water Plan is being updated by the Colorado Water Conservation Board. The update will be released to the public in summer 2022. The CWCB also is leading statewide discussions about Colorado's Drought Contingency Plans, convening numerous sessions to work toward a consensus.

Denver Water and Boulder County have reached an agreement that will allow Denver Water to move forward with its Gross Reservoir Expansion Project. Denver Water agreed to provide $13 million in environmental mitigation to settle permitting issues and allow the project to be built. Construction is set to begin in April 2022 on the $464 million project that will add 77,000 additional acre feet of storage to Gross Reservoir in Boulder County, located northwest of Denver. When completed Gross Reservoir will become the tallest dam in Colorado at 471 feet.

NEVADA

In 2021, Southern Nevada intensified its already progressive water conservation program in preparation for reduced Colorado River water deliveries in the years ahead.

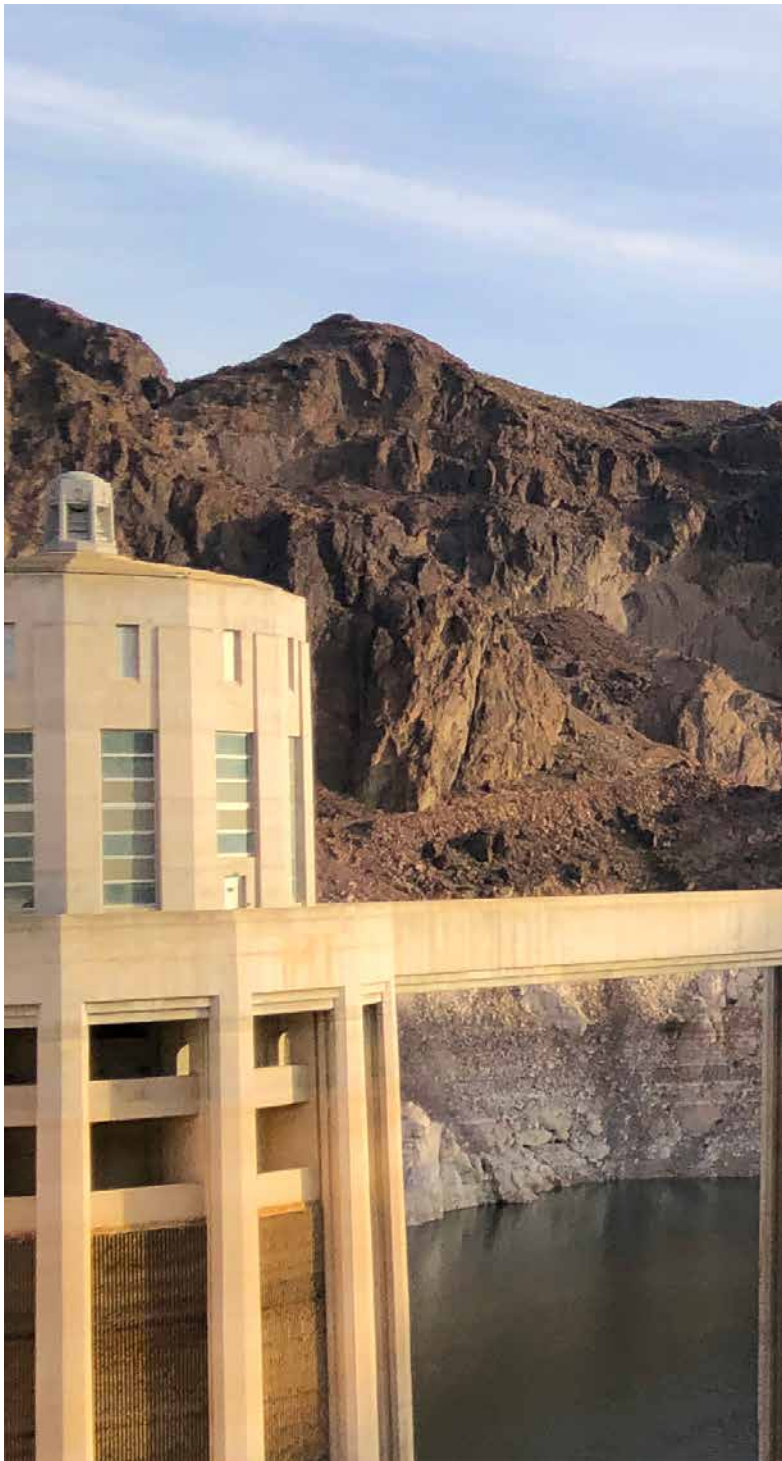
Chief among the new efforts, Nevada Gov. Steve Sisolak signed legislation to enforce the removal of nearly 4,000 acres of non-functional turf in the Las Vegas Valley by 2027. The Southern Nevada Water Authority (SNWA) appointed a citizens committee to provide recommendations to implement the new legislation, which prohibits using Colorado River water to irrigate non-functional, non-residential turf. The committee plans to present its recommendations to the SNWA Board in early 2022.

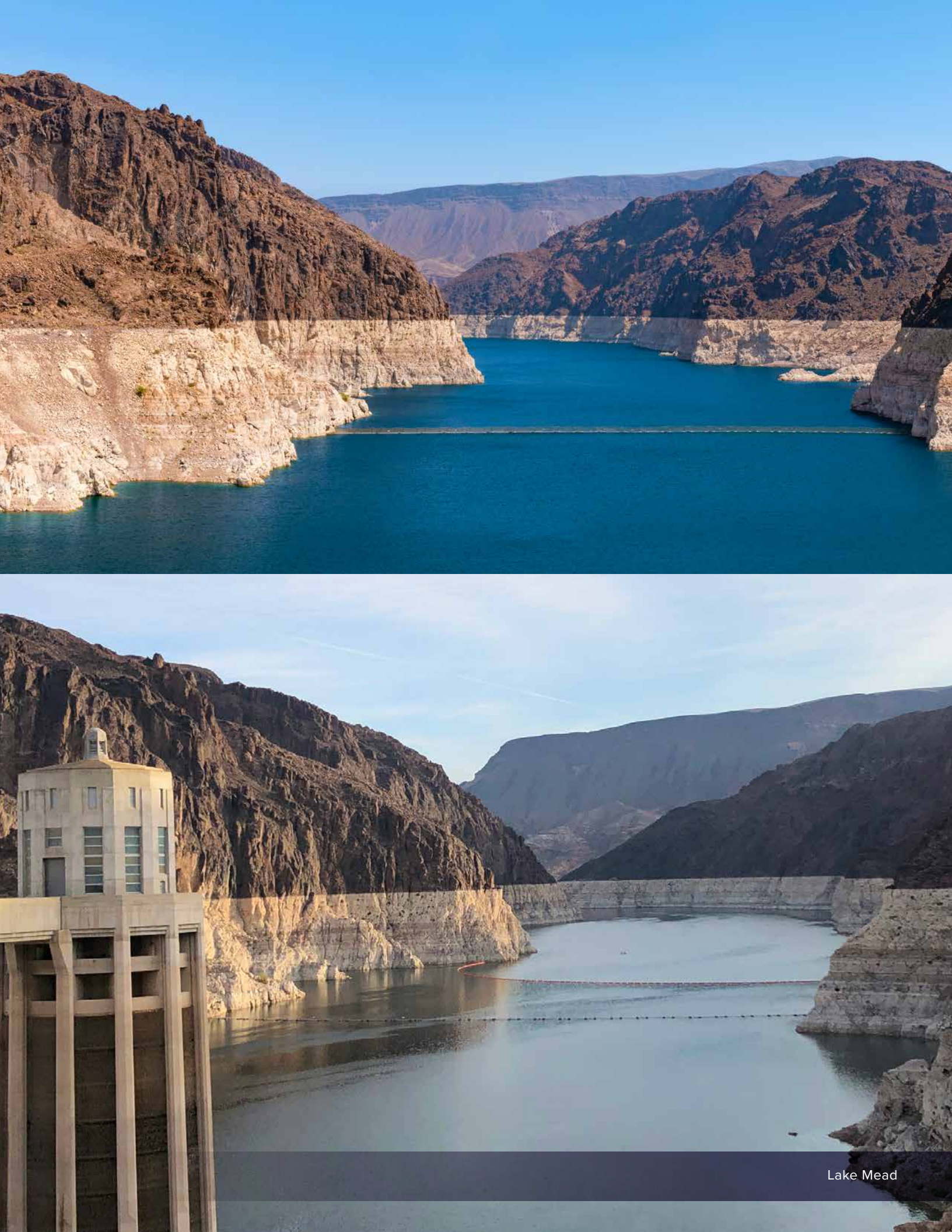
Projected to save nearly 30,000 acre-feet of water annually, the legislative mandate focuses primarily on non-functional turf surrounding business complexes, along streets and medians, and within Homeowner Association common areas. Single-family residential lawns are excluded, as homeowner participation in the popular Water Smart Landscapes rebate program has already yielded record water savings. Through this program, Southern Nevada has replaced more 200 million square feet of grass with water-smart landscaping since the rebate program began in 1999.

The SNWA continues to enforce seasonal watering restrictions, distributing more than 2 million customized watering schedules and seasonal reminders to households throughout the Las Vegas Valley this past year, as well as increasing water-waste enforcement with neighborhood patrols and a new mobile app launched to engage the community in water-waste reporting.

As part of the ongoing collaboration with our Colorado River partners to further conservation efforts along the river, the SNWA Board approved funding to participate with the Metropolitan Water District of Southern California in the development of a large-scale regional recycled water program in Southern California. The program has the potential to treat and reuse up to 168,000 acre-feet of treated wastewater, extending local water supplies and reducing demands on the Colorado River and Lake Mead.

This type of collaboration within the Colorado River Basin is vital to the health and conservation of the river system, as ongoing drought and climate change continue to influence the future availability of water supplies. SNWA researchers utilize climate change models to evaluate the long-term forecast for Colorado River flows and impacts on Lake Mead water levels. These projections are reflected in annual updates to the SNWA's Water Resource Plan, which also incorporates best practices to help ensure the long-term sustainability of the Southern Nevada community.





Lake Mead

NEW MEXICO

Since 2000, New Mexico like the other Upper Basin states has experienced shortages in water supply. In August 2021 the Bureau of Reclamation released its August 24-Month Study, which projects water levels in the Colorado River System, including Lakes Powell and Mead through July 2023. For this reason, the Department of the Interior and the seven Colorado River Basin states are escalating implementation of the Drought Contingency Plans (DCP) that were signed in 2019. In response to the drought situation, the Upper Basin states of New Mexico, Colorado, Utah and Wyoming, and the Bureau of Reclamation are implementing the Drought Response Operations Agreement (DROA), which is part of the Upper Basin DCP.

In July, Reclamation and the states initiated a drought response plan in accordance with the imminent need provision of the DROA. According to the current plan, Reclamation planned to release an additional 181,000 acre-feet of water from the Upper Basin reservoirs of Navajo, Aspinall and Flaming Gorge between July and December. The San Juan Basin Recovery Implementation Program Biology Committee recommendations for the Navajo Reservoir portion of the DROA called for the release of 20,000 acre-feet of water on top of normal operations over the course of 10 days rather than 60 days, from Nov. 25 to Dec. 5, 2021. This release will provide an average extra 1,000 cubic feet per second (cfs) of supplies per day, to meet the minimum target baseflow, with the release varying from 1,300 to 1,400 cfs. These releases will help protect the water level elevation at Lake Powell so the obligations under a century-old agreement are satisfied, while the power plant at Lake Powell can keep generating electricity for citizens across the Southwest, including New Mexico.

“New Mexicans benefit from the power generated at Lake Powell and from its direct revenues. While it is disappointing that the hydrology in this basin is deteriorating, the states have been preparing for this very difficult time over a number of years,” said John D’Antonio, New Mexico state engineer and Gov. Lujan Grisham’s appointed representative on the Colorado River. “New Mexico officials are working diligently and collaboratively with the other states, the Department of the Interior and our partners in the Republic of Mexico to implement the adaptive management actions contemplated under the DCPs to boost the water levels in Powell and Mead, while protecting New Mexico’s water uses for New Mexicans, including, our Native American tribes, pueblos and nations.”

Gov. Grisham tasked the New Mexico Interstate Stream Commission (NMISC) to produce a 50-Year Water Plan for the state of New Mexico. The NMISC is leading a collaborative effort to develop the long-term p plan to address the importance of water to New Mexico and the critical need to chart a course that will allow for more flexibility in managing water supplies and infrastructure development in the face of weather extremes brought on by a changing climate. As part of the development of the 50-Year plan, a team of research experts provided an assessment of changing temperature and water resource conditions and provided a description of what New Mexico’s water resources could look like over the next 50 years.

One of the most important components of the planning process has been to make the expert projections of water resource conditions in the future relatable to the public, communities and industry. Through the planning process, the intent is to learn what the public is doing today to prepare for a warmer and more variable water supply in the future. There will be a parallel outreach process with the tribes and pueblos. Ultimately, the plan will provide an update on the readiness of New Mexicans to prepare for changing water resource conditions, provide an assessment of potential water resource challenges in various sectors of the state due to expected continued warming conditions. It will bring New Mexico stakeholders to the table through Interstate Stream Commission meetings and by teaming with multiple partners including the New Mexico Water Dialogue (NMWD), New Mexico Water Resources Research Institute (WRRI), New Mexico Bureau of Geology and Mineral Resources, and the United States Army Corps of Engineers to create opportunities for dialogue between the Advisory Board, state and federal agency experts, and local experts. Water Plan goals include reducing risk and improving water resilience while creating a sustainable plan for the next 50 years. The process will include discussion of water resource issues and strategies, while ensuring inclusive water planning. Details can be found on the New Mexico Office of the State Engineer website.

The first requested water release by an Animas La-Plata Water Partner in 2020 was made on March 15. Jim Dunlap, a commissioner on the San Juan Water Commission, was given the honor of pressing the water release button for the Animas La-Plata Project’s initial release of water from Ridges Basin Dam in Durango, Colorado. The San Juan Water Commission made the request for release on behalf

Navajo Dam and Reservoir on the San Juan River

of its seven member entities - Northstar Water Users, the City of Aztec, Southside Water Users, Flora Vista Water User, City of Farmington, Lower Valley Water Users and Upper La Plata Water Users. The request was for 410 acre-feet of water for five days at 44 cfs for three days and 38 cfs for two days.

Water Year (WY) 2021 April-July runoff was poor throughout the San Juan River Basin. Navajo Modified Unregulated Inflow totaled 378 kaf which was 51% of average. There was no spring peak release. Releases varied from 300 –900 cfs throughout WY 2021. Drought conditions have improved in the Four Corners region due to rains, but drought still persists and is still at its maximum D4 level in many places. Soil moisture has also improved due to rains.

On October 11, the daily average release rate from Navajo Dam was 500 cfs while reservoir inflow was averaging 249 cfs. The water surface elevation was 6023.21 feet above sea level. At this elevation the live storage is 0.895 maf (54 % of live storage capacity) and the active storage is 0.269 maf (26% of active storage capacity). The Navajo Indian Irrigation Project (NIIP) was diverting 65 cfs while the San Juan-Chama project was diverting 0 cfs from the basin above the reservoir.

Releases from Navajo Dam are made for authorized purposes of the Navajo Unit and are pursuant to the Record of Decision for the Navajo Reservoir Operations. Releases target the San Juan River Recovery Implementation Program's recommended downstream baseflow range of 500 cfs to 1,000 cfs through the critical habitat reach of the San Juan River (Farmington, NM to Lake Powell). Current modeling shows the release will most likely vary between 250 and 500 cfs into the winter. In November and December of 2021, releases are scheduled to increase in response to a continual declining dry hydrologic condition for the Colorado River system. This drought operation is implemented under the Upper Basin Drought Response Operations Agreement. The maximum flexibility within the Record of Decision will be used to release an additional 20,000 af on top of base releases. Notification of releases will occur prior to the scheduled release change. Based on current storage and streamflows and the statistical range of likely hydrologies for WY 2022, there is a 25% chance for a spring peak release. The median runoff forecast is for 83% of average.

The San Juan River Recovery Implementation Program participants proposed amendments to the Recovery Program Authorizing Legislation during the April 2021 congressional briefings. The recovery program participants requested amendments to the authorizing legislation that would restore the authorization for annual hydropower funding that was deleted in 2019 amendments; make technical amendments to the legislation to ensure continued authorization of the programs through fiscal year 2023; and allow Reclamation to budget for the programs through FY 24. Technical amendments to the authorizing legislation are anticipated to ensure continued authorization of the programs through FY 23 and to allow Reclamation to budget for the programs through FY 24 on its three-year budgeting cycle. The necessary amendments were drafted, and with approval of participants in the two recovery programs, were submitted to Rep. Joe Neguse's office (D-CO) for introduction in the House. The amendments were introduced by Rep. Neguse and were passed and became H.R. 5001.

UTAH

Utah is the fastest growing state in the nation, growing 18.4% over the past decade compared to the national average of 7.4%. The state also tops the list in economic rankings based on employment, business environment and growth. More than 3 million residents call Utah home – a number projected to nearly double by 2065.

The state's growing economy and population, accompanied with its arid climate and ongoing drought conditions made worse by climate change impacts, necessitate proactive planning and management of water resources to ensure Utah's future stability.

Drought & Conservation Focus

In May 2021, the Natural Resources Conservation Service reported that Utah "water managers should prepare for exceptionally poor to (potentially) worst-on-record water supply conditions."

In the summer, all of Utah was in extreme or exceptional drought, according to the U.S. Drought Monitor. Utah Gov. Spencer J. Cox joined water officials around the state to highlight conservation efforts and outline measures needed to plan for Utah's future. The governor's four focus areas to advance water conservation and planning include the installation of secondary water meters statewide, integrated land use and water planning, continued investments in agricultural optimization, and establishing a statewide turf buyback program.

Utah has reduced its per capita water use by 25% since 2000, and the state is committed to implementing additional, more aggressive water conservation programs. The Utah Division of Water Resources established regional water conservation goals in 2019 to decrease the state's per capita water use an additional 16% by 2030. The state is also involved in conservation pilot programs, drought planning and demand management.

Utah's water year ended with reservoirs at 48% of capacity, down 15% from 2020 and down 26% from 2019. Half of Utah's rivers are in the driest categories for streamflow and water availability indices remain at historically low levels (bottom 15th percentile) for 10 of Utah's 18 major basins.

Colorado River Water Use

Utah currently depletes approximately 1 million acre-feet of water annually from its Colorado River apportionment under the 1948 Upper Colorado River Basin Compact. The state has reduced the estimate of its remaining undeveloped water supply to account for uncertain hydrology and climate change in planning for future development and tribal

Dead Horse Point

water rights settlements. A portion of Utah's unused allocation will be developed along the Green River and in Washington County.

Tribal Water Right Settlements

The Navajo Utah Water Rights Settlement Act was approved by Congress in 2020 and effectuated by the Utah State Legislature in 2021. The settlement confirmed the Navajo Nation's right to deplete 81,500 acre-feet of water per year from Utah's Colorado River allocation and authorized approximately $220 million for drinking water for the Navajo Nation projects.

The Ute Indian Tribe has a federally decreed water right for 144,000 acre-feet of depletion from the Colorado River system. The state and Tribe finalized negotiations on a water compact in 1990 that entitles the Tribe to an additional 115,000 acre-feet of depletion annually. Although ratified by Congress in the Central Utah Project Completion Act in 1992 and by the Utah Legislature in 2018, the Tribe has yet to ratify the compact.

Colorado River Authority of Utah

The Colorado River Authority Act was passed by the legislature and signed into law by Gov. Cox in March 2021, creating the Colorado River Authority of Utah. The authority is composed of six members – five who represent Colorado River authority areas and one who represents the governor.

The authority has three legislatively-stated purposes:

1. To advise, support, gather information and provide input to the river commissioner
2. To protect, conserve, use and develop Utah's waters of the Colorado River system; and
3. To develop a management plan, in the discretion of the authority, to ensure that Utah can protect and develop the Colorado River system and work to ensure that Utah can live within the state's apportionment of the river.

Board members include Gene Shawcroft, who serves as the river commissioner, authority chair and representative of the Central Utah area; Dan Larsen, representing the Uintah Basin area; Jay Humphrey, of the Price and San Rafael area; Zach Renstrom of the Virgin River area; Candice Hasenyager, who represents the state of Utah; and Brian Steed serving as the governor's appointee.

Castle Valley

WYOMING

Just like everywhere else in the Colorado River Basin, 2021 was challenging for Wyoming. Throughout the year, Wyoming has worked with other Basin States and Reclamation to address immediate needs resulting from historically poor hydrology, while preparing to begin work on longer-term solutions to the shared risks and vulnerabilities faced in the Colorado River system.

Wyoming continued to implement the Upper Basin Drought Contingency Plan (DCP). Wyoming has worked with the other Upper Basin States and the Upper Colorado River Commission to move the Upper Basin demand management investigation forward. Additionally, Wyoming spent considerable time this year implementing the Drought Response Operations Agreement.

In July, Reclamation began making releases from the upstream initial units of the Colorado River Storage Project Act to deliver an additional 181,000 acre-feet of water to Lake Powell. Reclamation and the Upper Basin States are working together to develop and finalize, if necessary, a plan for additional releases in 2022. Wyoming is considering the potential futility, transit losses, recovery, and accounting of any additional releases. In response to worsening hydrology, and storage releases from the upstream units, Wyoming Gov. Mark Gordon convened a Colorado River Working Group that meets regularly to discuss important Colorado River matters and monitor potential impacts to Wyoming. The group is made up of representatives of key water use sectors of the Green and Little Snake river basins in Wyoming, including agricultural, municipal, industrial and environmental interests. The Working Group is a continuation of a coordinated and proactive outreach effort that has been underway in Wyoming since 2019.

Finally, Wyoming suffered a significant loss of institutional knowledge this year when Steve Wolff left to become general manager of Southwestern Water Conservation District in Colorado. Since 2006, Steve provided valuable representation for Wyoming on numerous water related issues. Steve served as administrator of the Interstate Streams Division of the Wyoming Office of the State Engineer from June 2016 to June 2021.

Big Sandy Dam

TEN TRIBES PARTNERSHIP

Nambe Falls Reservoir

The Colorado River Basin Tribes Partnership, also known as the Ten Tribes Partnership, is an organization formed in 1992 by 10 federally recognized tribes with reserved water rights in the Colorado River Basin. The member tribes are: Ute Indian Tribe, Ute Mountain Ute Tribe, Southern Ute Indian Tribe, Jicarilla Apache Nation, Navajo Nation, Chemehuevi Indian Tribe, Colorado River Indian Tribes (CRIT), Fort Mojave Indian Tribe, Quechan Indian Tribe and Cocopah Indian Tribe.

The tribes formed the Partnership for the purpose of strengthening tribal influence among the seven Basin States over the management and utilization of Colorado River water resources. The Partnership assists member tribes in the development and protection of tribal water resources and addresses technical, legal, economic and practical issues related to the management and operation of the Colorado River. The Partnership formally joined the Colorado River Water Users Association in 1996 with the goal of actively participating with the seven Basin States in negotiations relating to the Colorado River. In 2018, the Partnership tribes, along with Reclamation, completed the Tribal Water Study, which included information regarding each Partnership tribe's water rights, current water uses, future demands and likely impacts to the system of future development of tribal water. As documented in the Tribal Water Study, Partnership tribes collectively have water rights in the Upper and Lower Basin to roughly 20% of the mainstream flow.

Water rights for the Chemehuevi Indian Tribe, the Colorado River Indian Tribes (CRIT), the Fort Mojave Indian Tribe, the Quechan Indian Tribe, and the Cocopah Indian Tribe, whose reservations are located on the lower reaches of the mainstream of the Colorado River, were decreed in Arizona v. California, 574 U.S. 150 (2006). In that case, the Supreme Court found that the Secretary of the Interior had a statutory duty to respect existing present perfected rights as of the date the Boulder Canyon Project Act was passed. Water rights of the five Indian reservations are among those present perfected rights and are entitled to priority based on the establishment date of each reservation and dates of boundary adjustments thereto.

In 2021 CRIT continued to make water available for Lake Mead as system conservation and Intentionally Created Surplus. CRIT fallowed approximately 11,000 acres of productive agricultural lands on the reservation in Arizona as part of the intra-Arizona Drought Contingency Plan. This year was the second of three years of the agreement to leave 50,000 acre-feet a year of new system conservation in Lake Mead. This project is funded by the state of Arizona, non-governmental organizations and corporate partners.

In cooperation with the Central Arizona Project and the University of Arizona, CRIT tested the N-Drip low-pressure drip irrigation on fields within CRIT Farms, the Tribes' farming enterprise, and are working on the agreements to expand the pilot program in 2022. CRIT continues to work with the Bureau of Indian Affairs to find ways to distribute water more efficiently from the federal irrigation project to the farmers at CRIT. As part of this effort, CRIT is using tribal and Reclamation WaterSMART funds to install additional measuring devices throughout the federal project.

CRIT has worked cooperatively with the state of Arizona and the Department of Interior to develop legislation and implementing agreements to authorize them to lease water in Arizona based on the reduction in consumptive use on the reservation. CRIT leadership continues to participate and serve on committees and councils in Arizona that are addressing the hydrologic conditions in the Basin.

A portion of the Ute Indian Tribe's reserved water rights was decreed in United States v. Cedarview Irrigation Company et al., No. 4427 (D. Utah 1923), and United States v. Dry Gulch Irrigation Company, et al., No. 4418 (D. Utah 1923), with a senior priority date of 1861, the establishment date of the Uintah Valley Reservation, pursuant to the reserved water rights doctrine first articulated in Winters v. United States, 207 U.S. 564 (1908). In 1965, the United States, the Central Utah Water Conservancy District, the State of Utah (by joint resolution of the Legislature) and the Ute Indian Tribe agreed to the quantification

Sumner Dam Reservoir

Platoro Dam

of the rest of the Tribe's reserved water rights by contractual agreement. In March 2018, the Tribe commenced litigation against the United States for the mismanagement, misappropriation and diminishment of the Tribe's reserved water rights and related resources. The Tribe is seeking declaratory and injunctive relief, as well as damages, to compensate the Tribe for past harms, including mismanagement of the Uintah Indian Irrigation Project.

The water rights for the four remaining Partnership tribes have been determined to various extents through settlement agreements. However, not all of the tribes' water rights claims have been resolved or finally quantified. The 1988 Colorado Ute Settlement Act, as amended by 2000 amendments and Colorado state court consent decrees, quantified the water rights of the Southern Ute Indian Tribe and the Ute Mountain Ute Tribe in the state of Colorado. The Ute Mountain Ute Tribe also has not resolved its water rights in the states of New Mexico and Utah.

The 1992 Jicarilla Apache Tribe Water Rights Settlement Act resolved the future use water rights claims of the Jicarilla Apache Nation to the water in the Colorado River system. Since 1992, the Jicarilla Apache Nation has been actively engaged in efforts to put this water to use. The Jicarilla Apache Nation currently subleases a portion of the water to support residential communities, endangered species, and resource development. The Jicarilla Apache Nation, along with the Navajo Nation, is a project participant for the Navajo Gallup Water Supply Project, which is now delivering treated drinking water to the southern portion of the Jicarilla Apache Nation's reservation.

In 2009, Congress ratified the Navajo Nation San Juan River Basin in New Mexico Water Rights Settlement Agreement. The Omnibus Public Land Management Act of 2009 (P.L. 111-11) authorized construction of the Navajo-Gallup Water Supply Project (NGWSP).

More than 30% of Navajo families haul water to meet their daily water needs. The NGWSP will provide a clean, reliable drinking water supply to meet the future population needs of approximately 250,000 residents of northwest New Mexico and northeast Arizona.

Two laterals are being built to serve the Navajo communities: the San Juan Lateral and the Cutter Lateral. The project currently has two active construction contracts. Block 4c-8 consists of the installation of 30 miles of pipeline (48 & 42-inch diameter) between Twin Lakes and Little Water, New Mexico. The work began in January 2020 and is scheduled for completion by spring 2022. The second contract is the construction of Tooh Haltsooi Pumping Plant (Pumping Plant 4) near Sheep Springs, NM and Bahastl'ah Pumping Plant (Pumping Plant 7) near Twin Lakes, NM. Contractor Archer Western began construction in January 2021 and expects to be completed by September 2022. Reclamation will soon award a construction contract for the Navajo Code Talkers Sub-lateral. Construction will begin in early 2022.

The Navajo Nation has Financial Assistance Agreements with Reclamation in place that allows the Nation to construct portions of the project. The Cutter Lateral was completed in 2020, with initial water deliveries in fall of 2020 and full water deliveries by the summer of 2021. The congressionally mandated deadline for completion of the NGWSP is December 2024.

The Navajo-Utah Water Rights Settlement Act was included as Section 1102 of the Consolidated

Heron Reservoir

Appropriations Act, P.L. 116-94, approved by Congress on Dec. 21, 2020, and signed by President Donald Trump on Dec. 27, 2020. The Navajo Nation is actively working to secure its water rights in other basins within the states of Arizona and New Mexico.

Among the Partnership's key goals are ensuring that, within the next decade, each Partnership tribe: has been able to successfully settle or otherwise resolve its reserved water rights claims; has the ability to maximize its on-reservation use of water as well as the flexibility to explore, facilitate and implement off-reservation use and transfers; can benefit from water infrastructure projects promised or obtained through settlements or negotiations with state and federal governments and other partners in a timely fashion; and is fully supported by the United States' exercise of its trust responsibilities to protect the tribes' water rights in all of its management.

The Ten Tribes Partnership recently developed and approved the following principles to guide its work on river policy going forward:

As indigenous people, we are closely connected to the land and natural resources and take seriously our obligation to protect and defend the Colorado River, as well as the plants, animals, people and ecosystems that rely on the river.

Continued drought has created extreme uncertainty for users of Colorado River water and concerns about the health of the river itself.

Insufficient water availability will have drastic consequences for our tribes, who rely heavily on the river for commercial, domestic, cultural and spiritual purposes.

Collectively, the Ten Tribes hold rights to more than 20% of the Colorado River's current estimated flow, and tribal water, therefore, plays an important role in supply and demand.

The Ten Tribes must be included in a meaningful way in shaping river policy going forward.

Part of this policy must be an acknowledgment of the extent of tribal water rights, a recognition of tribes' rights to use that water, and a commitment to assist tribes in benefitting from those water rights.

It is time to stop thinking about tribal water rights as a problem to be solved and start thinking about tribes and tribal water rights as integral to solving the basin's problems.

For the Ten Tribes, compensated forbearance, off-reservation marketing, and protection of future rights to on-reservation development, will be necessary components of any future river management system.

We must acknowledge that the water supply in the Colorado River was overestimated to start with and is shrinking year by year.

We must take steps to address supply/demand imbalances while protecting tribal water rights, the river, the reservoirs, and the plants, fish, birds and other species that depend on the river system for survival.

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