



2023 ANNUAL REPORT



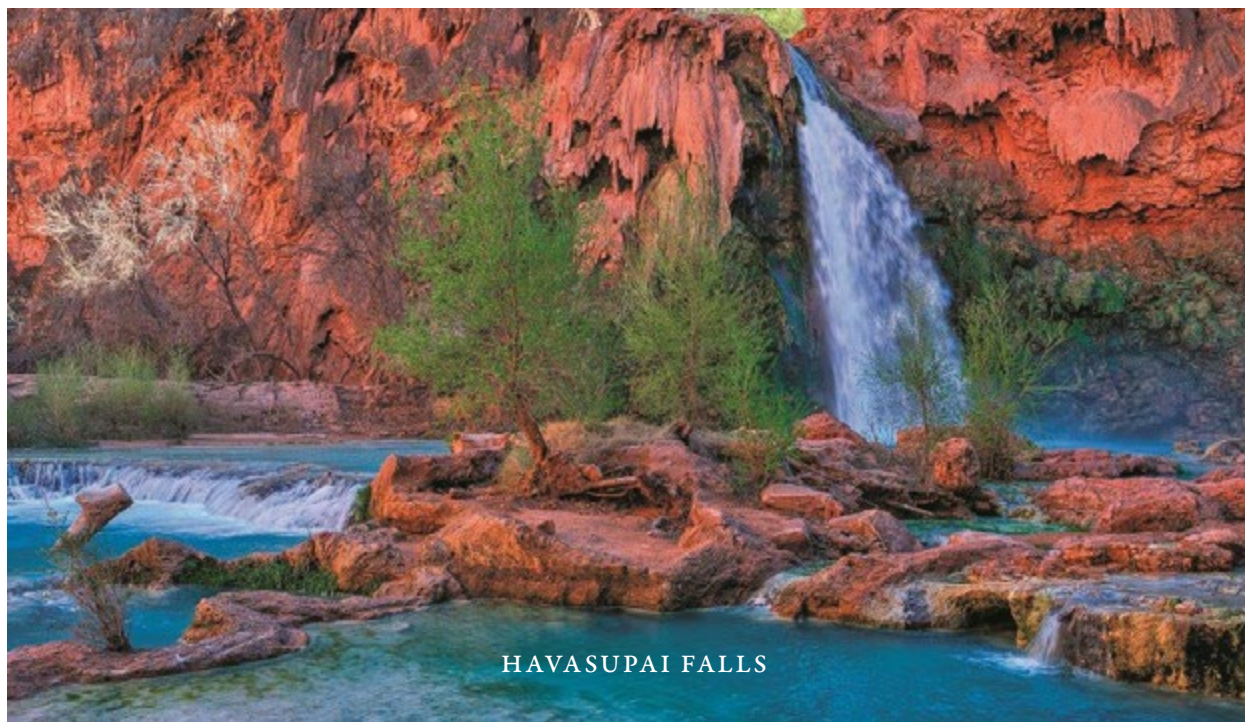
COLORADO RIVER BASIN

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/resolutions.html](https://www.crwua.org/resolutions.html).



HAVASUPAI FALLS

PRESIDENT'S MESSAGE

In 2023 the Colorado River Basin was afforded a brief reprieve in the ongoing drought cycle that was much appreciated. This brief tick in time, brought with it a noticeable shift to refocus on the significance of water and the need for continued commitment in securing each drop.

We celebrate the abundance of precipitation granted to our fellow Colorado River States and Tribes. As we continue to share in the hope for a much-needed stable and secure water supply, we choose to not just stand in hope alone. Through multiple communication channels, there has emerged an awareness toward employing a sustainable balance of reconciling water demands with available water supply with respect to operating Lakes Powell and Mead.

We continue our commitment to water resilience and conservation efforts while adhering to the interstate compacts, treaties, laws and decrees that govern the Colorado River – recognizing that these are not simplistic efforts for a few beneficiaries, but surge-driven endeavors that will benefit millions who rely on the Colorado River to enhance their way of life.

We ponder questions of what, where and why. What can we do, what must we do, and who will it affect, is the refocus when seeking rational solutions to this water conundrum. I share with you that we are a part of this Colorado River water puzzle and each piece is necessary for achieving the bigger picture.

In fulfilling my years as President of the Colorado River Water Users Association, I would like to express what an honor it has been to be part of the current Colorado River moments that will be history in times to come. I thank each of you for your contributions and efforts in making the Colorado River Water Users Association an ongoing success. I encourage our membership to continue active participation, foster open channels of communication and continue to cultivate multiple expressions of thought. I share with you that an idea kept to oneself and not expressed or shared is a potential solution that will never be.



AARON CHAVEZ

New Mexico,
CRWUA President

PROFIT & LOSS**APRIL 2022 THROUGH MARCH 2023****INCOME**

Interest Income	\$10,004.63
Program Income	
Conference Registrations	514,700.00
Exhibits - Conference	33,000.00
Membership Dues	29,760.00
Sponsorship	20,000.00
Total Program Income	597,460.00

TOTAL INCOME \$607,464.63**EXPENSE**

Contract Services	
Admin Fees	44,180.14
Total Contract Services	44,180.14

Travel and Meetings

Conference, Convention, Meeting	630,556.53
Exhibits Committee	1,976.26
Program Committee	19,224.23
Public Affairs Committee	19,381.53
Total Travel and Meetings	482,506.12

TOTAL EXPENSE \$715,318.69**NET INCOME \$(107,584.06)****BALANCE SHEET****AS OF MARCH 31, 2023****ASSETS**

Current Assets	
Checking/Savings	\$329,209.76
US BANK	
Total Checking/Savings	329,209.76
TOTAL CURRENT ASSETS	\$329,209.76

Other Assets

Trona Valley FCU CD	368,890.27
Total Other Assets	368,890.27

TOTAL ASSETS \$698,100.03**LIABILITIES & EQUITY**

Equity	
Opening Balance Equity	448,383.61
Unrestricted Net Assets	357,570.48
Net Income	(107,854.06)

TOTAL EQUITY \$698,100.03**TOTAL LIABILITIES & EQUITY \$698,100.03****SUMMARY OF ASSETS AND ASSET CHANGES****APRIL 2022 THROUGH MARCH 2023**

US Bank Checking Account (Includes interest of \$32.11)	\$329,209.76
Trona Valley Community FCU CD (Includes interest of \$9,972.52)	\$368,890.27
TOTAL ASSETS AS OF 3-31-23	\$698,100.03

OFFICERS & TRUSTEES

OFFICERS

PRESIDENT

Aaron Chavez

VICE PRESIDENT

Gene Shawcroft

SECRETARY-TREASURER

Jacqueline Allcorn

ASSISTANT SECRETARY-TREASURER

Mitch Bishop

TRUSTEES

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Brenda Burman
Tom Buschatzke
Elston Grubaugh

CALIFORNIA

Bart Fisher
Glen Peterson
John Powell

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Stanley Cazier
Steve Wolff

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Sara Price
Greg Walch

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Doug Echols
Keith Lee

UTAH

William Merkley
Zach Renstrom
Gene Shawcroft

WYOMING

Keith Burron
Bryan Seppie

TEN TRIBES PARTNERSHIP

Crystal Tulley-Cordova
Rosa Long
Daryl Vigil

IMMEDIATE PAST PRESIDENT

John Entsminger



COMMITTEES

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 Keith Lee, New Mexico
 Richard Mathey, Wyoming

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Wyoming - CHAIR
 Jim Broderick, Colorado
 Jay Burnham, New Mexico
 Benjamin Cowboy, Ten Tribes
 Partnership
 Leslie Meyers, Arizona
 John Powell, California

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 Kevin Bergschneider, Colorado
 Mark Davidson, Wyoming
 Douglas Mason, Arizona
 Nelson Ross, Arizona

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Nevada - CHAIR
 Aaron Chavez, New Mexico

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Colorado - CHAIR
 Jacqueline Allcorn, New Mexico

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Arizona - CHAIR
 Andy Belanger, Nevada
 Charles Blassingame, New Mexico
 Stanley Cazier, Colorado

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Utah - CHAIR
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 Mitch Basefsky, Arizona
 Amy Best, Nevada
 Mitch Bishop, Nevada
 Doug Bonamici, Ten Tribes
 Partnership
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 Keith Burrton, Wyoming
 Aaron Chavez, New Mexico
 Marielle Cowdin, Colorado
 Doug Echols, New Mexico
 Edalin Koziol, Colorado
 Jessica Rodriguez, Arizona
 Jack Scott, New Mexico
 Crystal Tulley-Cordova, Ten Tribes
 Partnership
 Meena Westford, California

PUBLIC AFFAIRS

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 Becki Bryant, Bureau of Reclamation
 Lindsay DeFrates, Colorado
 Scott Huntley, Nevada
 Robert Kirk, Ten Tribes Partnership
 Megan Martin, Arizona
 Bob Muir, California
 Karry Rathje, Utah
 Bryan Seppie, Wyoming
 Jeff Stahla, Colorado

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 Joanne Curry, Ten Tribes Partnership
 Tony DeMarco, Arizona
 Sandra Fabritz, Arizona
 Charlie Ferrantelli, Wyoming
 Gary Hathorn, New Mexico
 Barbara Hjelle, Utah
 Tom Maher, Nevada
 Lee Miller, Colorado
 Peggy Montano, Colorado
 John Morris, California
 Cindy Murray, New Mexico
 Bridget Schwartz-Manock, Arizona
 Meghan Scott, Arizona
 Bruce Whitehead, Colorado



RECLAMATION

BIG THOMPSON RIVER

RECLAMATION

In 2023, the Colorado River experienced significant improvement in the system due to above-average hydrology and ongoing conservation efforts. This allowed for Glen Canyon Dam's annual release volume, originally set at 7.0 million acre-feet for water year 2023, to increase downstream flows to approximately 8.58 maf from Lake Powell to Lake Mead.

Lake Mead's release in calendar year 2023 is projected to be the lowest in 30 years, approximately 1.5 maf lower than an average normal year, reflecting extensive, ongoing conservation efforts in the Lower Basin states funded in part by President Biden's historic Investing in America agenda, above-normal inflows in the Lower Basin below Hoover Dam, and conservation in Mexico.

The record snowpack in the Upper Basin and extensive conservation efforts in the Lower Basin provided the opportunity to help replenish both lakes in the near-term, but the basin is still experiencing severe drought conditions and the system's two largest reservoirs – Lake Powell and Lake Mead – remain at historically low levels.

To manage these reservoirs at historically low levels and anticipating future drought conditions, Reclamation has begun the process of developing both near-term and long-term guidelines. The 2007 Interim Guidelines Supplemental Environmental Impact Statement (SEIS) will address near-term operations while long-term guidelines are being developed under the Post-2026 process.

2024 OPERATIONS

Consistent with the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead (2007 Interim Guidelines), and Colorado River Basin Drought Contingency Plans (DCPs), Reclamation's August 2023 24-Month Study set the operational parameters for Lake Powell and Lake Mead for 2024. These operations may be supplemented, in part, when the near-term guidelines from the SEIS are finalized in 2024.

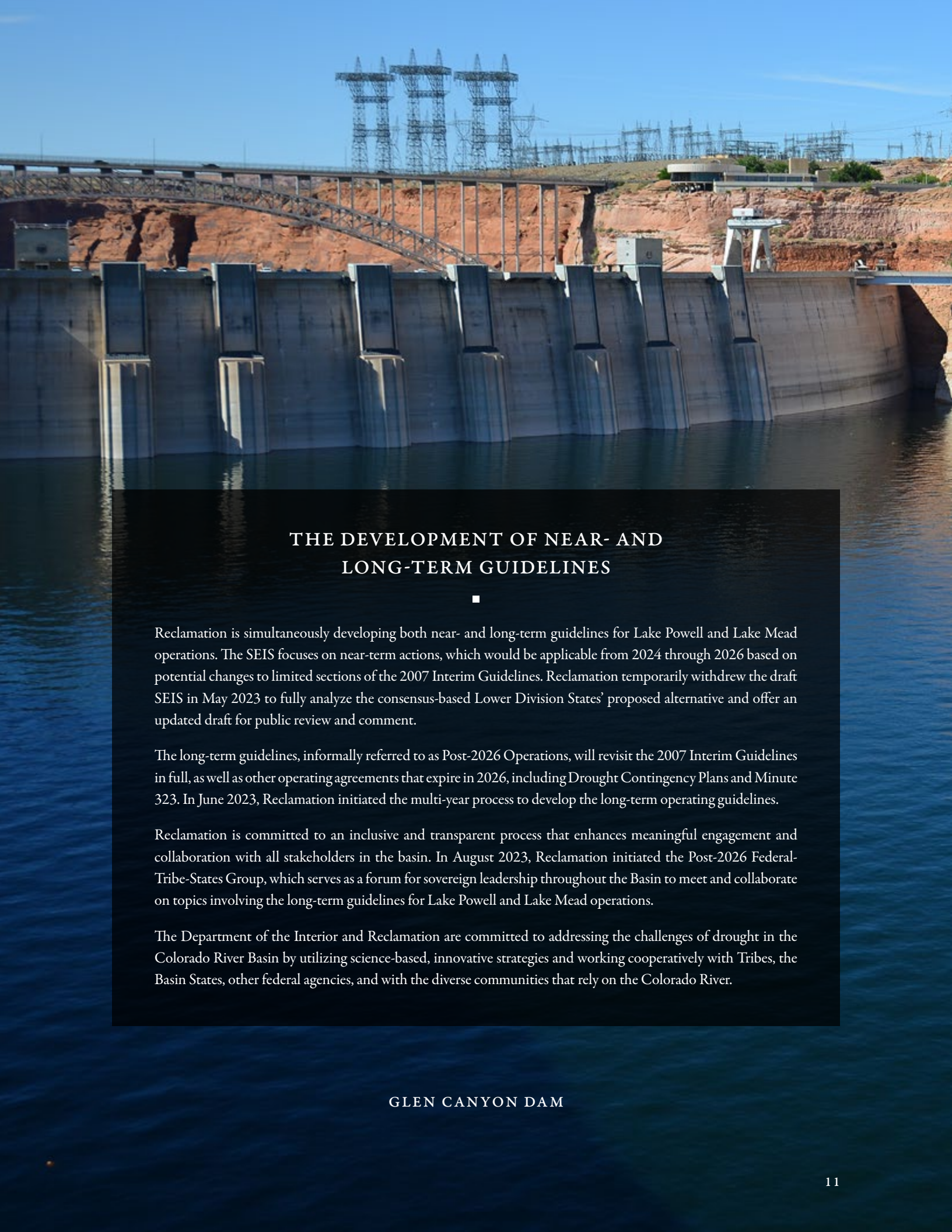
In water year 2024, Lake Powell is operating in a Mid-Elevation Release Tier with a 7.48 million acre-feet release, and Lake Mead is operating in a Level 1 Shortage Condition in calendar year 2024 – an improvement from the Level 2 Shortage Condition announced last year – with required shortages and DCP contributions by Arizona and Nevada. Mexico's water delivery will be reduced consistent with Minute 323.

The August 2023 24-Month Study, with an 8.23 maf release pattern in October – December 2023, projected Lake Powell's January 1, 2024, elevation to be 3,568.57 feet – about 130 feet below full and about 80 feet above minimum power pool. Under this tier, Lake Powell will release 7.48 million acre-feet in water year 2024 without the potential for a mid-year adjustment in April 2024. The August 2023 24-Month Study projected Lake Mead's January 1, 2024, elevation to be 1,065.27 feet – about 10 feet below the Lower Basin shortage determination trigger of 1,075 feet and about 25 feet below the Drought Contingency Plan trigger of 1,090 feet. This elevation is based on a 7.48 maf release from Lake Powell in water year 2024.

UPPER BASIN DROUGHT RESPONSE OPERATIONS

The 2022 Drought Response Operations Plan called for releasing 500,000 acre-feet of additional water from Flaming Gorge Reservoir to Lake Powell this operational year (May 2022 through April 2023) to protect the Colorado River system. The plan was suspended in early March in response to improved hydrology and runoff projections. Approximately 463,000 acre-feet of water was delivered from Flaming Gorge Reservoir downstream to Lake Powell as part of the 2022 plan.

The 2023 Drought Response Operations Plan (May 1, 2023 – April 30, 2024) is focused on allowing upstream reservoirs (Blue Mesa and Flaming Gorge) to recover additional water previously sent downstream to Lake Powell.



THE DEVELOPMENT OF NEAR- AND LONG-TERM GUIDELINES



Reclamation is simultaneously developing both near- and long-term guidelines for Lake Powell and Lake Mead operations. The SEIS focuses on near-term actions, which would be applicable from 2024 through 2026 based on potential changes to limited sections of the 2007 Interim Guidelines. Reclamation temporarily withdrew the draft SEIS in May 2023 to fully analyze the consensus-based Lower Division States' proposed alternative and offer an updated draft for public review and comment.

The long-term guidelines, informally referred to as Post-2026 Operations, will revisit the 2007 Interim Guidelines in full, as well as other operating agreements that expire in 2026, including Drought Contingency Plans and Minute 323. In June 2023, Reclamation initiated the multi-year process to develop the long-term operating guidelines.

Reclamation is committed to an inclusive and transparent process that enhances meaningful engagement and collaboration with all stakeholders in the basin. In August 2023, Reclamation initiated the Post-2026 Federal-Tribe-States Group, which serves as a forum for sovereign leadership throughout the Basin to meet and collaborate on topics involving the long-term guidelines for Lake Powell and Lake Mead operations.

The Department of the Interior and Reclamation are committed to addressing the challenges of drought in the Colorado River Basin by utilizing science-based, innovative strategies and working cooperatively with Tribes, the Basin States, other federal agencies, and with the diverse communities that rely on the Colorado River.

GLEN CANYON DAM

FUNDING RESOURCES

The Colorado River Basin is facing unprecedented risks from impacts of climate change, and the U.S. Department of the Interior and the Bureau of Reclamation are addressing changing conditions in the Basin with unprecedented investments.

The Bipartisan Infrastructure Law (BIL) includes an \$8.3 billion investment in Reclamation's programs over five years.

This funding will be used to repair aging water delivery systems, secure dams, complete rural water projects, and protect aquatic ecosystems. This funding includes \$300 million for the Colorado River Basin Drought Contingency Plan to reduce the risk of Lake Mead and Lake Powell reaching critically low elevations.

In addition to BIL funding, the Inflation Reduction Act includes \$4 billion specifically for water management and conservation efforts in the Colorado River Basin and other areas experiencing similar levels of drought. As part of this commitment, the Upper and Lower Colorado River Basins are working with states, Tribes, and other water users to implement programs that will result in additional water conservation in the Basin.

Additionally, Reclamation is implementing an overall \$1 billion investment from the Bipartisan Infrastructure Law for WaterSMART grants to provide financial assistance to water managers to help conserve and use water more efficiently, implement renewable energy projects, investigate and develop water marketing strategies, mitigate conflict risk in areas at a high risk of future water conflict, and accomplish other benefits that contribute to sustainability in the western United States.

The major investment announcement in 2023 was for \$195 million in funding opportunities available through President Biden's Investing in America agenda to develop a more resilient water supply, support cooperative watershed management, and safeguard aquatic ecosystems. The funds come primarily from the BIL WaterSMART program, as well as from the Inflation Reduction Act and annual appropriations.





COLORADO RIVER BASIN SYSTEM CONSERVATION AND EFFICIENCY PROGRAMS

In October 2022, Reclamation announced new drought mitigation funding opportunities to improve and protect the long-term sustainability of the Colorado River System. Funded with an initial allocation through the Inflation Reduction Act, the Lower Colorado River Basin System Conservation and Efficiency Program, also called the LC Conservation Program, will help increase water conservation, improve water efficiency, and prevent the System's reservoirs from falling to critically low elevations that would threaten water deliveries and power production.

From November 2022 through August 2023, Reclamation accepted conservation project proposals that would result in reduced consumptive use of Colorado River water. Lower Colorado River Basin and Central Arizona Project water delivery contract or entitlement holders were eligible to submit proposals under three components of the LC Conservation Program. Actions funded through the LC Conservation Program are designed to dramatically advance Reclamation's mission to protect and stabilize the Colorado River system. As of October 2023, nearly 20 Arizona and California entities have entered into System Conservation Implementation Agreements with Reclamation, committing to conserve up to more than one million-acre feet of water in Lake Mead through 2025, and more than 80 proposals for long-term system efficiency improvements are being reviewed.

The Upper Colorado River Basin System Conservation and Efficiency Program includes at least \$500 million in the Upper Basin States that will result in additional water conservation for the entire system. Reclamation has approximately \$125 million from the Inflation Reduction Act funding to support the relaunch of a System Conservation Pilot Program in the Upper Colorado River Basin. The purpose of the program is to generate temporary, voluntary and compensated water conservation to improve water efficiency and mitigate the impacts of drought on the Colorado River System. Reclamation anticipates using the remainder of the \$500 million in IRA funding for the second phase of the program, which will focus on long-term, durable projects.





HYDROPOWER

Reclamation owns and operates 12 hydropower plants in the Colorado River Basin. Western Area Power Administration markets hydropower from eight of those powerplants, including Hoover, Parker, Davis, the Aspinall units (Crystal, Blue Mesa and Morrow Point), Flaming Gorge and Glen Canyon. Prior to the ongoing drought, generating capacity at the eight powerplants averaged about 4,150 megawatts, and they generated an average of about 10.4 billion kilowatt-hours of hydropower each year. Since the beginning of the drought, however, total Basin hydropower generation has been reduced by about 29%.

About 200 wholesale utilities and other entities receive power from WAPA under long-term contracts, mostly in rural and underserved communities. The hydropower from the Colorado River Basin supports the energy needs of more than 13 million customers in seven states.

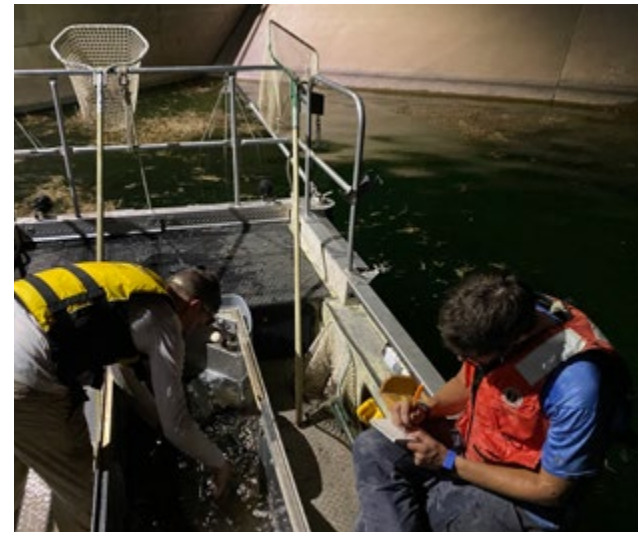
Revenue from the sale of hydropower repays the costs of operations and maintenance of the powerplants, dams, transmission infrastructure, and other program obligations including non-power programs such as salinity control, endangered species recovery, and adaptive management.



HYDROELECTRIC POWER GENERATORS AT HOOVER DAM

ENVIRONMENTAL PROGRAMS

Reclamation is committed to the environmental protection of the Colorado River Basin. The Upper Colorado and San Juan Recovery Programs have built, operated and maintained many fish passages, fish screens and fish-entrainment barriers and have stocked millions of razorback suckers, Colorado pikeminnow and bonytails to help reestablish populations. Reclamation and the Upper Basin Recovery Programs 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.



This year, Reclamation implemented the first spring release implemented under the High Flow Experiment Protocol that was initiated in 2012. High sediment loads in Marble Canyon and favorable hydrology conditions were present to support the spring experiment based on the analysis considered under the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP), which allows for high-volume dam releases for sediment conservation. This experiment mobilized and redeposited sand to rebuild beaches throughout the Grand Canyon. Rebuilding beaches and sandbars in the Grand Canyon also protects archaeological sites and provides other resource benefits.

Non-native fish management has been and will continue to be an on-going challenge at Glen Canyon Dam. With the extended drought, water levels in Lake Powell continue to decline to historically low levels, which has contributed to record high water temperature releases through Glen Canyon Dam. Below the dam, these warm-water releases are creating ideal spawning conditions for smallmouth bass, a predatory invasive fish species, which poses a threat to the threatened humpback chub and other native fish. It is estimated there are approximately 60,000 humpback chub below Glen Canyon Dam – most reside at or below the confluence of the Colorado and Little Colorado rivers in the Grand Canyon. Juvenile “young of year,” smallmouth bass were first found in the Colorado River below Glen Canyon Dam in June 2022. The area was chemically treated in September 2022. This summer, juvenile “young of year” smallmouth bass and other warmwater nonnatives were found again in larger numbers, underscoring the urgency of this emergent issue. National Park Service chemically treated the slough area again in late August 2023. Reclamation is undertaking an SEIS to the LTEMP Final EIS and Record of Decision to analyze flow options that could be used to prevent smallmouth bass from continuing to spawn below Glen Canyon Dam.

In 2023, the Lower Colorado River Multi-Species Conservation Program added 302 acres of new riparian habitat, bringing the total area managed for native species to about 7,350 acres since the program began in 2005. This year, nearly 13,000 native fishes were raised and stocked below Davis Dam, bringing the totals to about 279,000 razorback suckers and 136,000 bonytail stocked in those river reaches since the program began. Experts believe that actions taken under the program benefit other species in the basin and may prevent them from becoming endangered. These actions also keep Reclamation operations in compliance with environmental regulations. Under the Bipartisan Infrastructure Law, \$6 million was allocated in the Colorado River Basin for dredging a backwater that will support endangered species recovery and conservation. Support equipment for backwater and marsh maintenance, is included to reduce impacts to endangered fish species caused by the operation, maintenance and rehabilitation of water-diversion facilities.

COLORADO RIVER WATER QUALITY

To address Colorado River salinity, a funding opportunity announcement was posted fiscal year 2023 with an estimated \$40 million to be awarded for new projects to reduce salinity.

Water quality sampling and analyses in the Lower Colorado Basin Region continued with long-term monitoring of biological and water quality conditions. Reclamation collaborated with Southern Nevada Water Authority and others to make data available for water quality management decisions, studies and modeling.

In January 2023, Reclamation resumed injection testing of the Paradox Valley Unit, a crucial salinity control facility for the Colorado River system. Continuation of the test follows an initial six-month injection test to determine the viability of the injection well and injection zone. Seismic data acquired during the initial test indicate lowering rates of induced earthquakes and no unexpected seismic activity.

As in the initial test, the test extension was continued at a rate of 115 gallons per minute (67% of past operations). Reclamation will continue to closely monitor seismicity; if unfavorable conditions are observed, the injection test will be suspended until it is deemed safe to continue. The test extension will continue until completion of a risk analysis in early 2024 (the results of which were not available by CRWUA press time).

Additionally, lower reservoir levels at Lake Powell will continue to contribute to low dissolved oxygen levels below Glen Canyon Dam, causing concern for the health of the trout fishery located near Lees Ferry. Reclamation works with the U.S. Geological Survey to closely monitor water quality conditions and is working with partners and stakeholders to better understand potential effects of low dissolved oxygen. Fish native to the Colorado River, such as humpback chub and razorback sucker, are generally located farther downstream where low dissolved oxygen levels are remedied by riffles and runs, which aerate the water.





COLORADO RIVER HEADWATERS



ARIZONA

SALT RIVER

ARIZONA

Arizona Governor’s water leadership

In May 2023, Arizona Gov. Katie Hobbs, along with the state’s water leaders, outlined Arizona’s support for a NEPA alternative in the Draft Supplemental Environmental Impact Statement (SEIS). The alternative involves participation in a Lower Basin Colorado River water proposal that the governor observed would help protect the state’s water future and “puts the state on the right path to conserve water in the long-term.”

The proposal as outlined by the Arizona governor on May 25 and presented to the Department of the Interior by Arizona, California and Nevada is for the Lower Basin to conserve three million acre-feet in the Colorado River system, a substantial portion of which will be conserved by Arizona’s water users. All of the proposed contributions by Arizona water users are voluntary.

At the same time, she observed that the work of her newly empaneled state Water Policy Council, which is focused on both conservation and augmentation efforts, “complements” the proposal to conserve Colorado River water.

The Lower Basin proposal, she said, “is a critical first step in securing our state’s water future for generations to come,” noting that it will boost the ability of the Colorado River states to focus on system operation guidelines post-2026.

Arizona users are conserving nearly 345,000 acre-feet of water in 2023 through the Central Arizona Water Conservation District (CAWCD)/ Arizona Department of Water Resources (ADWR) Intentionally Created Surplus (ICS) Preservation program as well as federally funded Central Arizona Project (CAP) subcontractor, tribal contractor and on-river conservation agreements. This is in addition to the 592,000 acre-foot mandatory Tier 2a shortage reduction taken by Arizona.

Arizona Reconsultation Committee work continues

The Arizona Reconsultation Committee (ARC), meanwhile, is continuing its work preparing input to Arizona’s negotiating team on the reconsultation of 2007 guidelines using hydrologic information provided and vetted by a subcommittee referred to as the Modeling & Analysis Work Group

Water Infrastructure Finance Authority

Also, as a complement to Colorado River conservation efforts, Arizona has directed considerable new resources to its Water Infrastructure Finance Authority. WIFA is an independent state authority authorized to finance the construction, rehabilitation, acquisition, and improvement of water infrastructure throughout Arizona.

CENTRAL ARIZONA PROJECT

Beginning 2023 in Tier 2a shortage

Arizona began 2023 in the first-ever declared Tier 2a shortage for Colorado River operations. This represented a 592,000 acre-foot reduction to Arizona’s Colorado River supply, constituting 34% of Central Arizona Project’s normal supply in an average year, 21% of Arizona’s Colorado River supply and about 9% of Arizona’s total water use.

Nearly all the reductions within Arizona have been taken by Central Arizona Project (CAP) water users. These reductions are implemented pursuant to the CAP priority system – the result being no Colorado River water available for the Excess Water or Agricultural pools and a slight reduction to Municipal & Industrial (M&I) and Tribal supplies.

Joint communications efforts are ongoing and representatives from the Arizona Department of Water Resources (ADWR) and CAP continue to field media calls from local, regional, national – and even international – media outlets. Communications efforts regarding shortage have included a fact sheet, FAQ, stakeholder briefings, infographics and community presentations.

Three-state consensus proposal

In May, CAP – along with ADWR – announced a consensus proposal developed by Arizona, California and Nevada to conserve historic volumes of Colorado River water in Lake Mead. The proposal reflects commitments to conserve three million acre-feet in Lake Mead over the next three years, the first 1.5 million of which would “front-load” by the end of 2024.

With this proposal in hand, the Department of the Interior announced it was temporarily withdrawing its draft Supplemental Environmental Impact Statement (SEIS) so that it can fully analyze the effects of the proposal under the National Environmental Policy Act (NEPA). A decision is expected in fall 2023.

Return to Tier 1 shortage for 2024

This year’s favorable hydrology is leading to the return of a Tier 1 shortage for 2024, which equates to a 512,000 mandatory acre-foot reduction to Arizona’s Colorado River supply. This constitutes about 30% of CAP’s normal supply and about 18% of Arizona’s Colorado River supply.





CENTRAL ARIZONA PROJECT SYSTEM

ON-RIVER



Yuma-area growers rely on Colorado River water to grow America's winter leafy greens and a wide variety of other valuable agricultural products.

In recent decades, Yuma-area agriculture has steadily increased its productive output, doubling crop yields in some cases and increasing the economic value of the area by 700%. Over the same period, its water use markedly decreased, by an average of 15% since 1990 (0.8 acre-foot/acre) and nearly 18% since 1975 (1.0 acre-foot/acre). This decrease is attributable to a variety of factors, including shifts in cropping patterns but especially the implementation of numerous irrigation efficiency practices that leave tens of thousands of acre-feet of water in the Colorado River every year.

Challenges have included increased salinity of Colorado River water and a transition to a more consolidated food industry. In addition, due to decreased power generation at Glen Canyon and Parker dams, the firm electric service price charged by Western Arizona Power Association (WAPA) has increased substantially due to the need to purchase firming power. The overall price of purchased power has increased, as well.

COLORADO RIVER AT YUMA ARIZONA

SALT RIVER PROJECT

For more than 120 years, Salt River Project (SRP) has managed a robust system of dams, reservoirs and canals to deliver reliable water to more than 2.5 million residents in the Phoenix metropolitan area. As Arizona continues to thrive in the midst of a record drought, SRP continues to look for innovative ways to maintain our water resiliency legacy.

SRP has been working collaboratively with local stakeholders from the tribal, agricultural and municipal and industrial sectors to improve operational systems while researching proposed water augmentation projects that will improve the resiliency of the water supply in central Arizona.

A feasibility study is currently underway by the Bureau of Reclamation (Reclamation), SRP, and 22 non-federal partners on a proposal to modify Bartlett Dam on the Verde River by raising the existing dam about 100 feet. This would restore storage capacity lost to sedimentation, improve sediment management, and expand total water storage for capturing flood waters.

The proposed project would increase conservation storage capacity on the Verde River by about 350,000 acre-feet – enough water to support about 1.1 million households in the Phoenix metropolitan area for a year. The additional stored water could also be made available for use outside of SRP's water service area to support water users in central Arizona.

In addition, SRP, the Army Corps of Engineers, Reclamation and 14 partners from the tribal, agricultural and municipal and industrial water sectors are proposing a five-year project to temporarily modify the operating rules in the flood control space (FCS) at Theodore Roosevelt Dam on the Salt River. If approved by the Corps, the project would extend the evacuation period of the FCS from 20 days to 120 days for 110,000 acre-feet of the FCS, improving the ability to put flood waters of the Salt River to beneficial use inside and outside of SRP's water service area. If fully utilized during a flood event, that amount could support about 330,000 Phoenix area households for a year.





Arizona's Salt & Verde River System - Water Year 2022

Last winter, Arizona and much of the Southwest experienced record snowfall that led to a productive runoff season for its reservoirs. SRP snow surveys determined that snowpack on the 13,000-square-mile watershed that replenishes the Salt and Verde River reservoirs was the deepest it had been in 30 years.

SRP ended the 2023 winter run-off season with total inflow from the Salt and Verde rivers of about 1.8 million acre-feet. That is about 400% of combined median run-off. The productive winter has resulted in the Salt-Verde system at 88% full today compared to 65% a year ago. That is about 400% of combined median run-off compared to the 2022 run-off season of 217,000 acre-feet, one of the driest on record.

Throughout the year, SRP strategically releases water from the dams on the Salt and Verde rivers into a series of canals to meet the water needs of the 2.5 million residents in the Phoenix metropolitan area. In particularly wet winters, like 2023, when the reservoirs are nearing capacity, releases outside of the canal system are required to make room

in the reservoirs for additional expected runoff. 2023 inflows exceeded the reservoir storage capacity on the Salt and Verde rivers necessitating releases into the Salt River bed. The record-breaking winter precipitation and runoff prompted SRP to release about 732,000 acre-feet downstream of our reservoirs in order to ensure safety of dams. SRP ended the runoff season at full capacity at all seven of the dams it manages.

Another source of inflows for the Salt and Verde River watersheds is monsoon moisture. In some years, monsoon rains bring enough additional water to make up for dry winters, which is what happened in 2022. Unlike the 2022 monsoon season, which produced above normal precipitation across the SRP watersheds, the 2023 monsoon season ended up being one of the driest on record, exemplifying the unpredictable nature of weather and water supplies. While the productive winter provided SRP with full reservoirs, the utility has remained committed to managing for drought and educating customers on the importance of conserving in this dry, arid environment.

ROOSEVELT DAM RELEASES





CALIFORNIA

LLOYD ALLEN RESERVOIR

CALIFORNIA

Water agencies across Southern California took steps in 2023 to further reduce their use of Colorado River water as part of their commitment to implement immediate conservation measures under the Lower Basin Plan for the Supplemental EIS for short-term Colorado River operations. The plan – submitted to the Bureau of Reclamation (Reclamation) in May – calls for 3 million acre-feet of additional conservation in the Lower Basin by the end of 2026. Approximately 1.6 million acre-feet of that would be generated from California, in-line with California’s proposal in late 2022 to conserve up to an additional 400,000 acre-feet of water a year for four years.

To support some of these actions, California agencies are executing six contracts for federal funding for short-term water savings under Reclamation’s LC Conservation Program. At the start of the year, some California agencies also continued their conservation commitments funded through the 500+ Plan by Reclamation, the Arizona Department of Water Resources, Central Arizona Project, the Metropolitan Water District of Southern California (Metropolitan) and the Southern Nevada Water Authority. Thanks to these efforts and a wet water year, Colorado River water deliveries to California in 2023 are on track to be the lowest in the state since 1949 – approximately 700,000 acre-feet lower than the state’s 4.4 million acre-foot apportionment and the state will store a record amount of Intentionally Created Surplus in Lake Mead.

In August, agencies also submitted proposals for long-term conservation actions that would provide water savings well beyond 2026. Those proposals are being evaluated by Reclamation.

California celebrated the 20th anniversary of the Quantification Settlement Agreement on Oct. 10, 2023. The landmark agreement generated the largest ag-to-urban water transfer in the nation, led to new agricultural conservation in California, and facilitated a new era of collaboration among California’s agricultural and urban water agencies.

Leadership at the Colorado River Board of California also changed hands in 2023, with the election of Imperial Irrigation District Director JB Hamby as River Board chairman in January.



IMPERIAL IRRIGATION DISTRICT (IID)

IID continues to make significant strides to support the Colorado River, while providing a reliable water supply for Imperial Valley to grow food for the nation. IID now conserves about 500,000 acre-feet each year, amounting to approximately 16% of its annual entitlement. In support of the Lower Basin Plan, IID has proposed conserving an additional 250,000 acre-feet each year (for a total of 24% of its supply) from 2024-2026, and continues working with federal officials to develop the mechanisms necessary to implement these commitments. In 2023, IID continues to implement its Equitable Distribution Program, as one of many water management initiatives, and will end the year meeting all local water demands and QSA obligations while creating excess water for Lake Mead.

IID's support for the Salton Sea continues. In late 2022, the IID Board of Directors authorized a landmark agreement with California and the Department of the Interior designating \$250 million in Reclamation funding to accelerate dust suppression and habitat projects at the Salton Sea to facilitate water conservation in the Imperial and Coachella Valleys.

IID also saluted the completion of its newest reservoir, the Lloyd Allen Water Conservation Operational Reservoir.



PALO VERDE IRRIGATION DISTRICT (PVID)

PVID continued to conserve water under a short-term agricultural land fallowing program funded through the 500+ Plan, conserving more than 58,400 acre-feet of water in Lake Mead through July 2023. The fallowing is based on an ongoing partnership between PVID and Metropolitan. As part of the effort to boost Lake Mead, Metropolitan turned over available fallowing capacity to Reclamation to create system water, rather than funding fallowing and transferring the conserved water to urban Southern California. PVID and Metropolitan submitted a proposal to continue this short-term fallowing with federal funding under Reclamation's new conservation program. Starting Aug. 1, 2023, the PVID-Metropolitan fallowing program would be at a maximum fallowing call of 25,947 acres and continue for three consecutive years, through July 2026, for a total estimated water savings of 381,420 acre-feet.

PVID celebrated its centennial on Oct. 26, 2023. In 1923, the Palo Verde Mutual Water Company, The Palo Verde Levee District and the Palo Verde Drainage District combined to form PVID.



COACHELLA VALLEY WATER DISTRICT (CVWD)

CVWD took action in late 2022 to save more than 9,000 acre-feet of Colorado River water by temporarily curtailing replenishment at its Thomas E. Levy Facility, under the 500+ Plan. Replenishment was also curtailed in 2023 and will continue through 2025, with short-term funding from Reclamation's new conservation program – approved by CVWD's board and Reclamation – saving 35,000 acre-feet of Colorado River water annually. A second application for short-term funding, approved by CVWD's board in November 2022 but still awaiting Reclamation's approval, focuses on agricultural fallowing programs, with the intent of saving up to 10,000 acre-feet per year for three years.

CVWD also requested federal funding for longer-term conservation under Reclamation's new conservation program. One proposal would expand a recycled water project to produce an additional 1,000 acre-feet of recycled water for agricultural irrigation. A second program would incentivize conservation on golf courses through irrigation efficiencies and turf removal, for up to 300 acre-feet of annual savings.

OASIS AVENUE PIPE INSTALL

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

In addition to temporarily turning over to Reclamation its following programs with PVID and Bard Water District, Metropolitan also initiated plans in 2023 to leave more water stored in Lake Mead through at least 2026, to boost lake levels in the short term. In addition, Metropolitan took steps in 2023 to permanently reduce the use of Colorado River water in urban Southern California through conservation and development of new local supplies. The agency co-sponsored statewide legislation – passed in September and signed into law by Governor Gavin Newsom in November – prohibiting businesses and institutions from using drinking water to irrigate decorative or non-functional lawns. And Metropolitan took steps to expand its turf-rebate program, incentivizing Southern California residents and business owners to replace their grass with more sustainable landscaping.

Metropolitan also continued to advance Pure Water Southern California, including receiving \$80 million in funds from the State of California in July to advance development of the project, which will purify cleaned wastewater to produce a new large-scale, drought-proof water supply for Southern California. When complete, it will produce enough water to meet the annual demands of more than 500,000 homes.





COLORADO

ROARING FORK RIVER BASIN

COLORADO



Like the other states in the Colorado River Basin, Colorado was fortunate to receive above-average precipitation and water supplies in 2023.

A string of winter storms brought much-needed moisture to locations throughout the Colorado River Basin and its tributaries, providing the region with a brief reprieve after years of below-normal conditions and allowing reservoirs to recover from lower levels in 2021 and 2022.

“While we never fully know what the future may hold, so far Water Year 2023 has been a welcome reprieve from the previous three years with above normal snowpack, precipitation and streamflow runoff across much of the state,” according to a June 1 report from the Natural Resources Conservation Service. The snowstorms of spring transformed into summer rainstorms that continued to help river conditions throughout 2023. That moisture also helped to limit the ignition of wildfires that have had such a major effect on the watershed.

The region continues to face the long-term challenges of climate change-induced aridification, however, with much of the state returning to drought conditions as of October 2023.





On the policy front, Colorado was active in 2023.

In January, the Colorado Water Conservation Board approved its update to the Colorado Water Plan. The plan serves as a framework for collaborative efforts to address planning and was created through extensive input from stakeholders throughout the state. The update to the original 2015 Colorado Water Plan includes four main focus areas, according to the Colorado Water Conservation Board: Vibrant Communities, Robust Agriculture, Thriving Watersheds and Resilient Planning.

The Colorado Water Plan is available for download at cwcb.colorado.gov/colorado-water-plan.

In addition, the Colorado General Assembly passed legislation in 2023, signed by the governor into law, to create a Colorado River Drought Task Force. The task force met starting in July to provide recommendations to the General Assembly for “programs to assist in addressing drought in the Colorado River Basin and the state’s interstate commitments related to the Colorado River and its tributaries.” Recommendations will be referred to the 2024 session of the Colorado General Assembly.



Several projects affecting the Colorado River made significant progress in 2023.

In the Upper Colorado River Basin, construction crews neared completion of the Colorado River Connectivity Channel, a channel that will divert water from the Colorado River around Windy Gap Reservoir near Granby, move the water in a river-like channel around the reservoir and return it to the Colorado River below the Windy Gap Dam. It will allow the passage of fish and macroinvertebrates from above and below the reservoir and will allow the transportation of sediments around the reservoir as well. This long-sought project, part of the construction program for the Windy Gap FIRMing Project, will be substantially complete in 2024.

In 2023, a project to bring high-quality water from the Colorado River Basin to communities in the Arkansas River Basin received significant financial support from federal, state and local sources. The Arkansas Valley Conduit will fulfill long-term goals of the Fryingpan-Arkansas Project by offering direct delivery, via pipeline, of water from Pueblo Reservoir to communities in southeastern Colorado.

Across Colorado's Western Slope, water managers benefited from Water Year 2023's additional moisture, adding flexibility to collaborative reservoir releases from Granby, Green Mountain, Wolford, and Ruedi Reservoirs to benefit important reaches for Colorado's Endangered Fish and agricultural producers.





NEVADA

COLORADO RIVER, LAUGHLIN

NEVADA

An unseasonably wet water year combined with lower regional water demands temporarily shored up Lake Mead levels, improving the shortage outlook for Southern Nevada in 2024.

While Southern Nevada remains in a Tier 1 federally declared shortage, our region continues to use less than our Colorado River annual allocation, thanks in large part to community conservation. In 2023, the Southern Nevada Water Authority (SNWA) introduced even more incentives to its already world-renowned conservation programming in combination with new ordinances to ensure our valley's current and future sustainability.

Assembly Bill 220, signed into law in June 2023, introduced several groundbreaking initiatives in water management. The legislation prohibits new septic systems in areas served by the Colorado River while also establishing funding and a financial assistance program for current septic system owners interested in connecting to the municipal sewer system. The initiative is projected to capture hundreds of millions of gallons annually for reuse in the Las Vegas Valley.

In addition, the legislation provides the ability to limit water use at single-family homes to approximately half an acre-foot per year in certain emergency federal shortage conditions – placing limitations on the community's top residential water users – and managed with oversight by the SNWA Board of Directors.

The law also requires new development to install water-efficient irrigation controllers, prohibits grass in new development and requires functional turf to be watered efficiently.



To gauge the water-resource impacts of new industry on our community, the SNWA developed a Water Investment Rating Tool to calculate and evaluate the consumptive water use of companies interested in moving to the region or expanding operations. This first-of-its-kind evaluation tool will help to ensure the water footprint of new business and industrial operations is compatible with our region's resources while also promoting economic development.

In addition to these regulatory measures, the SNWA introduced its largest incentive to date to encourage existing businesses to replace evaporative coolers, which collectively represent one of Southern Nevada's biggest water uses, with dry-cooled systems. A new tree canopy cash incentive also was added to the SNWA's popular Water Smart Landscapes rebate program to encourage residents to include more desert-compatible trees in their landscape conversions to help curb the urban heat island effect.

Participation in existing conservation incentive programs remains strong, particularly in the commercial/municipal sector, as the 2025 deadline nears for the state-legislated removal of non-functional turf. The program is on track to

reach its goal of converting approximately 7 million square feet of decorative grass to water-smart landscaping by the end of this year.

This balance of incentive and regulatory programming is already proving an effective tool in regional water management. The Las Vegas Valley Water District, which introduced an excessive use charge at the start of 2023 for properties exceeding seasonal watering thresholds, found customers typically changed their household irrigation habits within one or two cycles of an excessive use violation. At the same time, the Water District enhanced its automated leak notification program, giving enrolled customers immediate text alerts and notifications of spikes in water use to help residents identify and correct a potential leak before experiencing significant water loss, water damage or high-water bills. The SNWA also added educational resources to help homeowners identify and repair leaks, including online tutorials and access to certified Water Smart Plumbers, a new program in which participating businesses receive SNWA training in water-smart best practices.

LOWER COLORADO RIVER BASIN PARTNERSHIPS

While 2023 was another banner year for local conservation programming and community water savings, Southern Nevada remains committed to explore opportunities with our Colorado River Basin partners to help navigate the river system through climate-change-driven drought conditions and federal water reductions. The SNWA continues to partner with The Metropolitan Water District of Southern California in the development and funding of Pure Water Southern California, a large-scale regional recycled water program in Southern California for wastewater treatment and reuse, reducing demands on the Colorado River and Lake Mead.

An interim proposal between Nevada, Arizona and California is projected to conserve 3 million acre-feet of water in Lake Mead over the next several years, providing a bridge through the end of 2026, while the Colorado River Basin states continue to negotiate long-term operations of the river.

HOOVER DAM INTAKE TOWERS



NEW MEXICO

SAN JUAN RIVER

NEW MEXICO

January 2023 started the year with flows into New Mexico in the San Juan, Animas, and La Plata Rivers that ranged from 27% to 133% of the historic average. Navajo Reservoir started the year at 52% of full capacity. Spring flows into New Mexico in the San Juan, Animas, and La Plata Rivers from March through May 2023 ranged from 32% to 334% of the historic average. The runoff season began with periods of below-normal temperatures, with small snow events, offering a period of increased flows. Navajo Reservoir concluded the spring season at 80% full. Early summer flows to into New Mexico from the San Juan Basin, ranged from 51% to 139% of the historic average. The San Juan Rivers, Animas, and La Plata Rivers were near average flows, while Navajo Reservoir has peaked in elevation, and is 78% full. Despite the cooler spring earlier in the year, hot and dry conditions have persisted, and will likely continue into the fall. As of early September, El Niño conditions are observed and an El Niño Advisory is currently present. Equatorial sea surface temperatures (SSTs) are above average across most of the Pacific Ocean. El Niño conditions are expected at a 95% chance for the Northern Hemisphere winter of 2023-24.

The San Juan Basin Recovery Implementation Program and the Upper Colorado River Basin Program have achieved great success benefiting the fish, the partners, and the basins. Upper Colorado and San Juan River Basin Endangered Fish Recovery Programs Reauthorization Act of 2023 reauthorizes these programs for 15 years, providing long-term certainty for program partners and consistent benefits for the four threatened and endangered fish species – the humpback chub, Colorado pikeminnow, razorback sucker, and bonytail. In November 2021, the U.S. Fish and Wildlife Service downlisted the humpback chub from “endangered” to “threatened.” The razorback sucker has also been proposed for downlisting. The programs provide compliance for over 2,500 water projects—totaling more than 3.7 million acre-feet of water use per year—including major water reservoirs, agricultural water use, ski areas, and more. Engage in Partnerships for Funding and Implementation: States, Tribes, water users, conservation groups, and hydropower interests work collaboratively to fund and implement science-based recovery actions – from coordinating flows through key habitat reaches during dry summer months when fish need it most, to funding habitat restoration, to removing nonnative species. Non-federal partners propose to commit nearly \$200 million in water, cash, and in-kind contributions throughout the 15-year extension. The Upper Colorado and San Juan River Basin Endangered Fish Recovery Programs Reauthorization Act of 2023 will extend the Upper Colorado and San Juan River Recovery Programs for 15 years, providing certainty for water use in the Upper Colorado River Basin and fulfilling the federal government’s trust responsibility to Tribes in the Upper Basin. Ensure continued ESA compliance for 2,500 federal, Tribal, and non-federal water projects in the Upper Colorado and San Juan River basins, including every Bureau of Reclamation project upstream of Lake Powell. Authorize up to \$165 million for the Bureau of Reclamation to continue annual cost-shared funding for program implementation, continuing work to stock the threatened and endangered fish species, conducting research and monitoring, managing habitat and river flows, combat nonnative species, and operating fish passages and hatcheries through fiscal year 2038. Add up \$100 million to the authorization ceiling for capital projects, which will fund infrastructure improvements essential to the recovery of the endangered and threatened fish over the next 15 years. Enable program partners to deploy their own commitments, enlisting the Upper Basin states, Tribes, and non-federal partners to provide their own contributions to meet shared species recovery goals.



Image courtesy of Mitch Tobin @waterdesk.org

On April 25, 2023, the NMISC submitted a Revised Notice to Take Delivery for Calendar Year 2023 to the Jicarilla Apache Nation (Nation), pursuant to the January 2022 Water Supply Agreement between the NMISC, the Nation, and The Nature Conservancy (TNC). In this revised notice, the NMISC formally informed the Nation that it has decided to apply the 20,000 acre-feet of water leased from the Nation to the spring release that Reclamation is planning to conduct this year.

On June 9, 2023, the New Mexico State Engineer, Reclamation Commissioner Camille Calimlim Touton, and New Mexico Congresswoman Teresa Leger Fernandez joined Navajo Nation, State, and local leaders at the Navajo-Gallup Water Supply Project (NGWSP) Reservoir Transfer Ceremony. The event commemorated the transfer of the San Juan Generating Station facilities ownership from PNM to Reclamation, including the PNM reservoir. The NGWSP will benefit greatly from the off-river storage that diminished turbidity resulting from sediment settling out of the water that is stored in that reservoir. The storage in this reservoir offers the ability to shut down the river intake and continue

water deliveries in the event of another Gold King Mine Spill until the river quality improves. During the ceremony, Reclamation and Navajo Nation leadership unveiled a new name for the former San Juan Generating Station Reservoir. The reservoir is now named after Frank Chee Willetto, a member of the Navajo Nation who proudly served as a Navajo Code Talker during World War II.

On July 11, 2023, Senators Hickenlooper (D-CO) and Romney (R-UT) co-sponsored a bill to reauthorize Reclamation to provide cost-shared funding to implement the two endangered and threatened fish recovery programs (Upper Colorado, SJRIP).

On July 12, 2023, the NMISC submitted a letter signed by the Chairman in support of this piece of legislation. In addition, the NMISC comments to the SJRIP Program Office on needed updates to the Program Document for the post-2023 reauthorization period. The NMISC also continues to discuss with the SJRIP partners the Cooperative Agreement that will be needed for the post-2023 reauthorization period.



Image courtesy of cmnrd.nm.gov

To help address the ongoing drought, water shortages, aging infrastructure, and multiple forest fires, Governor Michelle Lujan Grisham authorized the State Engineer to form a Water Policy and Infrastructure Task Force of water and natural resources experts, senior state agency staff, and stakeholders from around New Mexico to study the problems and recommend actions the state can take. Working together, the 29 Water Task Force members, representing diverse expertise, geographies, and community interests, examined New Mexico's water management and governance challenges. Members of the Water Task Force will work closely with the Legislature and the Executive in the hopes that a transformative approach in solving the problems will coalesce as we approach the 2023 session and beyond. The Water Task Force membership is also serving as Water Ambassadors to their regions, legislators and constituents and will certainly continue promoting the outcome of these efforts beyond the conclusion of the Water Task Force's work.

In the early months of 2023, positive results from the Task Force's work had already begun to emerge. Seventeen legislative bills and memorials were introduced that were either inspired by, or directly adapted from, the Task Force's recommendations, with another four bills indirectly related to the recommendations. Action on the issues raised by the Task Force will be necessary to build the resilience of New Mexico's water system in the face of climate change.



Image courtesy of Mitch Tobin @waterdesk.org



UTAH

COLORADO RIVER, LA SAL MOUNTAIN

UTAH

Utah remains committed to ensuring the Colorado River remains a viable resource for the current and future generations who depend on its water. The river is a vital source of both municipal and agricultural water for Utah, supplying more than a quarter of all water used statewide.

This commitment is underscored by the actions of Utah's executive and legislative leadership, who have, in the last two years, allocated nearly a billion dollars for water conservation, development and infrastructure. The bills focus on agricultural water optimization, funding water reuse and desalination projects, installing secondary water meters, paying property owners to replace grass with water-efficient landscaping, monitoring groundwater, water education and more.

Legislation specific to the Colorado River includes funding to enhance data management capabilities and expand a pilot program to promote agricultural water conservation in the Colorado River watershed. The program will include temporary, voluntary and compensated reductions in consumptive water use while considering demand management, market drivers and scalable drought mitigation plans.



Utah is actively involved in the development of post-2026 operational guidelines and strategies for Lakes Powell and Mead. In a letter to the Bureau of Reclamation dated Aug. 15, 2023, Utah's Colorado River Commissioner reaffirms the state's commitment to work with its Colorado River Basin states, the Bureau of Reclamation, Tribes and other key stakeholders to develop a consensus alternative for consideration and evaluation. Recommendations in Utah's letter include but are not limited to, addressing the imbalance between water supply and demand and structuring Lake Powell releases based on hydrologic conditions and storage. Utah also signed a joint comment letter submitted by the other three Upper Division States and a collective seven Basin States letter.

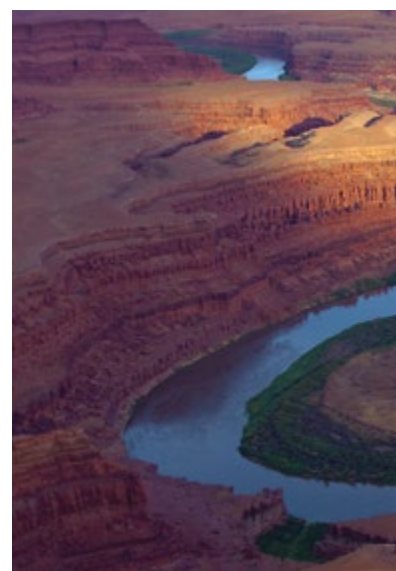
At the local level, water districts throughout Utah are implementing a variety of drought mitigation measures, including additional infrastructure investments, conservation programs, reuse projects and municipally mandated water efficiency standards for new construction. Communities in southern Utah have banned non-functional grass in all new commercial, institutional and industrial developments. Since 2000, Utah's population has increased 50%¹ while its per capita water use has decreased more than 25%.² Utah topped the list of fastest-growing states in the nation in 2023.

Utah also holds the highest ranking of any state for its economy and fiscal stability. Ensuring a safe, adequate water supply for Utah's expanding economy and growing population are key priorities amongst state leaders. To ensure water does not impede Utah's high performance, state water providers are actively planning decades in advance.

In 2020, the state updated its Statewide Water Infrastructure Plan to consider needed investments in water resources. The plan identified \$13 billion in water conservation, \$21 billion in the repair and replacement of aging infrastructure and more than \$15 billion in new infrastructure and water supplies to meet Utah's water demands through 2070.

Fortunately, Utah enjoyed a record-setting water year in 2023, bringing statewide reservoir storage up to 77%, compared to 45% last year. Snow water equivalent (SWE) peaked on April 8 at 30 inches, which is 216% of normal. Nine of Utah's 16 major watersheds reached a record-high SWE level in 2023.

1 US Census Bureau
2 Utah Division of Water Resources







WYOMING

NORTH FORK LITTLE SNAKE RIVER

WYOMING



The favorable snowpack and wet spring and summer in Water Year 2023 allowed for a brief reprieve from the poor hydrology suffered in previous years in southwest Wyoming and throughout the basin. Although one wet year will fall far short of solving the Basin's problems, it has given Wyoming and the other Basin States some space to focus on longer-term solutions rather than constantly reacting to short-term emergencies.

The wet year also provided relief for critical storage in the Upper Basin. Relief included the early suspension of Drought Response Operations Agreement (DROA) releases to Lake Powell. Flaming Gorge DROA releases ended at 463,000 acre-feet, short of the planned 500,000 acre-feet. Additionally, previous DROA releases from Flaming Gorge, totaling 588,000 acre-feet during 2021 and 2022, are expected to be fully recovered by February 2024. This storage is not only significant for Wyoming's local economy, but also a critical buffer against dry years in the future.





Even though it was a wet year, Wyoming and its water users continued to pursue water conservation efforts. Wyoming and the other Upper Division States implemented the System Conservation Pilot Program (SCPP). Also active from 2015 to 2018 in the Upper Basin, SCPP is a voluntary, temporary and compensated program that incentivizes water conservation activities. In 2023, there were 21 such projects in Wyoming – 19 irrigation, one municipal, and one industrial. Those projects conserved an estimated 16,000 acre-feet of water. Wyoming also supported continuation of the program in 2024 and will focus on projects that support water conservation innovation and local drought resiliency.

Additionally, Wyoming and its water users continue to support and pursue water-use studies and improved measurement tools, as well as long term-water conservation improvements. Wyoming also continues to expand its knowledge of its water use through planned water modeling enhancements. To advance those modeling efforts, Wyoming’s Interstate Streams Division added Suman Chitrakar (Chee-tra-car) to its team and looks forward to the benefits of his impressive skills and background.



Wyoming's legislature also continued to focus on the Colorado River. It passed an Act authorizing the formation and funding of the "Wyoming Colorado River Advisory Committee." The Committee consists of nine members appointed by the Governor who represent various water-use sectors and two legislators who represent Wyoming's House of Representatives and Senate. Many of the members previously served on Governor Gordon's Colorado River Working Group and are knowledgeable about current Colorado River issues. Wyoming expects that the Committee will be integral to its decision making process as it navigates the increasingly complex and urgent discussions surrounding the Colorado River Basin.





TEN TRIBES

PINE RIVER INDIAN IRRIGATION PROJECT

TEN TRIBES PARTNERSHIP

The Colorado River Basin Tribes Partnership, also known as the Ten Tribes Partnership (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. These 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, 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.

THE TEN TRIBES PARTNERSHIP HAS 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.

CENTER PIVOT, SOUTHERN UTE INDIAN RESERVATION

Water rights for the Chemehuevi Indian Tribe, 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 2022, Arizona Senators Kelly and Sinema introduced S. 3308, the Colorado River Indian Tribes Water Resiliency Act and it was heard by the Senate Indian Affairs Committee. Chairman Grijalva included a modified version of the legislation as Title III of the Wildfire Protection and Drought Relief Act as passed by the House. As of this writing, the CRIT legislation is being reconciled between the two houses of Congress with hopes for passage this year.

During 2022, CRIT is completing the third and final year of a multi-year system conservation agreement entered as part of the Arizona mitigation program for the

Drought Contingency Plan. This program is funded with appropriated funds from the State of Arizona and by NGO and corporate partners. The 55,000 acre-feet per year left in Lake Mead required the fallowing of approximately 11,000 acres of productive farm land on the Reservation in Arizona.

The Tribal Council approved a Diversion Management Plan in 2022 to guide the water diversions and deliveries by the Bureau of Indian Affairs. The CRIT also received a Reclamation Water & Science grant to work toward an integrated water ordering system among the CRIT farmers, the BIA and Reclamation. Both the DMP and the improved process for water orders should increase the efficiency of the water ordering and delivery process at CRIT.

In cooperation with the Central Arizona Project and the private company N-Drip, CRIT expanded the acreage and the types of crops using the N-Drip system as part of a pilot study to determine the effectiveness of the N-Drip system over multiple years of use.

Leadership and staff of the CRIT continue to participate in 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 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 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 Southern Ute Indian Tribe has been implementing rehabilitation efforts on the Pine River Indian Irrigation Project (PRIIP). Southern Ute received \$500,000 in grant funding from the Bureau of Reclamation to construct a long-Crested weir on the Ute Creek Lateral of the PRIIP in order to address a drought vulnerability. Southern Ute's Water

Use Option Team began meeting in 2023 in order to learn about the Tribe's water resources, with the long-term goal of developing options to use the Tribe's water resources. The Ute Mountain Ute Tribe also has not resolved its water rights in the states of New Mexico and Utah.

Since the creation of The Ute Mountain Ute Tribe Water Resource Committee (WRC) in 2021, the primary goals of the WRC were to create a Water Resource Department and develop a strategic plan for the management, protection and development of the Tribe's water rights and water resources. The first goal, to establish a Water Resources Department, was completed in the Spring of 2023 with the hiring of a Water Resource Director with an additional Technician position to be filled by November. This accomplishment couldn't have been met without the financial assistance from the Walton Family Foundation, New Venture Fund, and the Nature Conservancy. 2023 also provided a full water supply for the 7,700 acre Ute Mountain Ute Farm and Ranch Enterprise (FRE). The FRE was able to return to production 80% of the fallowed acres from the drought in 2021. Bureau of Reclamation provided much needed drought relief funding to cover expenses to treat the 6,000 fallowed acres that were returned to production. The Ute Mountain Ute Tribe and Southern Ute Indian Tribe have been active participants in the Colorado legislature created Drought Task Force addressing drought in the Colorado River Basin and Sub Task Force studying tribal matters in the latter half of 2023.





The 1992 Jicarilla Apache Tribe Water Rights Settlement Act resolved future use water rights claims of the Jicarilla Apache Nation 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 its settlement water to support residential communities, endangered species, and resource development. In 2022, the Jicarilla Apache Nation, the New Mexico Interstate Stream Commission and The Nature Conservancy entered into an innovative water transaction that allows the State of New Mexico to lease up to 20,000 acre-feet of water from the Jicarilla Apache Nation each year to benefit threatened and endangered fish and wildlife and provide water security for communities. In 2023, 20,000 acre-feet of water was ordered and released pursuant to this transaction. This project demonstrates how tribal and state governments and conservation organizations can work together to find collaborative solutions that benefit multiple interests and users. The Jicarilla Apache Nation, along with the Navajo Nation, is also a project participant for the Navajo Gallup Water Supply Project, which will deliver treated drinking water to the southern portion of the Jicarilla Apache Nation's reservation in late 2023 or early 2024.

In 2009, Congress ratified the Navajo Nation – New Mexico Water Rights Settlement Agreement for the San Juan River Basin. The Omnibus Public Land Management Act of 2009 (P.L. 111-11) authorized the construction of the Navajo-Gallup Water Supply Project (NGWSP). On June 8, 2023, Senators Ben Ray Lujan and Martin Heinrich introduced S. 1898, a bill to amend the Northwestern New Mexico Rural Water Projects Act (P.L. 111-11), also known as the Navajo-Gallup Water Supply Project Amendments Act of 2023. This bill is needed to authorize additional time and resources to complete the project and for its long-term, sustainable operations, and maintenance.

More than 30% of Navajo families haul water to meet their daily water needs. The NGWSP began providing a clean, reliable drinking water supply to meet the current and future population needs of approximately 250,000 residents of Northwest New Mexico and Northeast Arizona. There are two laterals, the San Juan Lateral and the Cutter Lateral. The Cutter Lateral has been providing water for the past couple of years to eight Navajo communities serving several thousand Navajo residents on the eastern side of the Navajo Nation. Parts of the San Juan Lateral are still under construction.



The NGWSP currently has four active construction contracts. On March 23, 2023, BOR awarded a \$66,772,172 contract to SJ Louis Construction of Rockville, MN for construction of Block 4a & 4b, which will consist of 17.9 miles of pipeline construction. The anticipated completion date is October 2025. On Sept. 23, 2022, Reclamation awarded a \$73,056,845 contract to Archer Western Construction of Phoenix, AZ, to construct the Tsé Da'azkání Pumping Plant and Tó Alts'íísí Pumping Plant on the San Juan Lateral. In December 2021, Reclamation awarded a contract for \$76,113,868 to SJ Louis Construction of Rockville, MN, for the construction of the Navajo Code Talkers Sublateral. The work will be located along New Mexico Highway 264, between Yah-Ta-Hey, NM and Window Rock, AZ, and will consist of the installation of approximately 17 miles of 24- to 30-inch diameter pipe and one water storage tank. Work under this contract began in January 2022 with a completion date of fall 2024. The construction of the Tooh Haltsooi Pumping Plant near Sheep Springs, NM, and Bahast'ah Pumping Plant near Twin Lakes, NM are ongoing. Contractor Archer Western began construction in January 2021 with a completion date of spring 2024.

The Financial Assistance Agreements with Reclamation allowed the Navajo Nation to construct portions of the NGWSP. For example, the Cutter Lateral was completed in 2020, with historic water deliveries in October 2020 and full water deliveries by summer 2023. The BBN9 Sublateral is in final design and is scheduled to start construction in fall 2023.





The Navajo-Utah Water Rights Settlement Act is included as Section 1102 of the Consolidated Appropriations Act (P.L. 116-260), approved by Congress on Dec. 21, 2020, and signed by President Donald Trump on Dec. 27, 2020. The Navajo Utah Water Rights Implementation Team is working on required tasks before implementation of water projects. The Navajo Nation is actively working to secure its water rights in other basins within the states of Arizona and New Mexico.

In 2023, the Fort Yuma Quechan Indian Tribe implemented the second year of a seasonal fallowing pilot project in partnership with the Metropolitan Water District. The Tribe also continues to conduct a system optimization review to identify opportunities for efficiency improvements and other water conservation measures on the Indian Unit of the Yuma Project Reservation Division, which is located on the Tribe's Reservation. The Tribe also anticipates entering into a system conservation agreement with Reclamation and the Metropolitan Water District to contribute water to protect elevations in Lake Mead.

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.





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