



Colorado River Authority of Utah

ANNUAL REPORT | Fiscal Year 2022-2023



TABLE OF CONTENTS:

Executive Director’s Message	1
Authority Board Members and Staff	2
1. Intrastate Colorado River Authority of Utah Activities	3
A. Colorado River Management Plan	3
B. Fiscal Year 2023 Work Plan Implementation	5
C. Fiscal Year 2024 Work Plan.....	6
D. Advisory Councils.....	8
E. Advisory Councils Developments.....	9
F. Outreach	10
G. Legislation.....	11
E. Appropriations	11
2. Interstate Colorado River Authority of Utah Activities	13
A. Post-2026 Operational Criteria.....	13
B. Supplemental Environmental Impact Statement	14
C. Drought Response Operations Agreement.....	15
D. 2023 System Conservation Pilot Program	16

EXECUTIVE DIRECTOR'S MESSAGE



Dear Governor Cox and Legislative Management Committee,

Utah's population is projected to double by 2060. Meanwhile, the flow of the Colorado River has shrunk by nearly 20% over the last two decades. While supply is decreasing due to extended drought and the impacts of climate change, overuse in the Lower Basin continues to be a significant problem. Recent hydrology has bought us some time, but Utah will need to be creative in finding water savings and adopting sound conservation strategies that acknowledge our very real supply challenges while simultaneously enabling us to fight for every last drop of Utah's allocation of the Colorado River.

We are not sitting on the sidelines. The state has taken proactive steps to support and invest in programs that incentivize sustainable, durable conservation measures. Moreover, in 2022, the Colorado River Authority of Utah adopted an aggressive, five-year Management Plan. The Plan focuses on state-of-the-art measurement and modeling of Utah's Colorado River System water and the adoption and implementation of drought mitigation strategies that seek to preserve our agricultural heritage while identifying conservation strategies to reduce use.

Created in 2021 through legislation co-sponsored by the Speaker of the House and President of the Senate, the Authority is one of Utah's youngest state water management entities. Nevertheless, in two short years we have made rapid progress both on our intrastate priorities (Management Plan) and interstate activities, including representing Utah in negotiations over near-term and future operations of the Colorado River System and the coordinated operations of Lake Powell and Lake Mead. Moreover, the Authority, in partnership with our other state water entities, engages in numerous interstate Colorado River commitments including the Upper Colorado River Commission, the Glen Canyon Dam Adaptive Management Program, the Upper Colorado River Endangered Fish Recovery Program, the San Juan Recovery Implementation Program and the Salinity Control Forum. In addition, through the Authority, Utah represents the Upper Colorado River Basin in the implementation of the 1944 Water Treaty between the United States and the Republic of Mexico.

Despite a year of unpredictable and unprecedented hydrology, I believe 2023 is the year the Authority began to fully hit its stride. We were able to expand our capacity by bringing on two talented staff engineers to help us meet the various technical challenges we are facing as a state, and we hired a manager of administration and finance to address the combined priorities of responsible fiscal oversight and administration of a small team in charge of implementing a broad statutory mission.

In the year ahead, we aim to enhance collaboration with local communities and organizations to address water challenges collectively. We have not lost sight of our mission to "protect, conserve, use and develop Utah's waters of the Colorado River system." 63M-14-102. This will continue to be our guiding principle as we prepare to navigate the challenging times ahead. Together we will work diligently to secure a thriving future for the Colorado River in Utah.

Thank you for your continued support.

A handwritten signature in blue ink that reads "Amy I. Haas".

Amy I. Haas
Executive Director
Colorado River Authority of Utah

Authority Board Members



Gene Shawcroft

Chair

Colorado River
Commissioner of Utah

Central Utah Area: Salt Lake,
Utah, Juab, Sanpete, Summit,
and Wasatch Counties



Joel Ferry

Vice Chair

Governor's Appointee



Zach Renstrom

Virgin River Area: Kane and
Washington Counties



Candice Hasenyager

State of Utah Area: Remaining
Utah Colorado River users



Dan Larsen

Uintah Basin Area: Duchesne
and Uintah Counties



Paul Tsosie

Tribal Representative



Jay Mark Humphrey

Price and San Rafael Area:
Carbon and Emery Counties

Authority Staff

Amy I. Haas, Executive Director
Betsy Coleman, Executive Assistant
Cody Stewart, Director of Strategic Engagement
Holly McCall, Support Services Coordinator

Marty Carpenter, Communications Director
Lily Bosworth, Staff Engineer
Betsy Morgan, Staff Engineer
Cadi Sande, Manager of Administration and Finance

Intrastate Colorado River Authority of Utah Activities

1

A

COLORADO RIVER MANAGEMENT PLAN



On April 21, 2022, the Colorado River Authority of Utah approved a five-year Management Plan to accomplish its statutory mission to “protect, use, conserve and develop Utah’s waters of the Colorado River system.” The Management Plan promotes a shared and resilient water supply to support a vibrant and prosperous Utah. The Management Plan provides a suite of adaptable technical and legal strategies that protect and support the farms, homes, businesses, environment, and quality of life that all Utahns enjoy.

The initial term of the Management Plan is five years, beginning July 1, 2022 through June 30, 2027 (Fiscal Year 2023 - Fiscal Year 2027). The Management Plan is meant to be dynamic to respond to changing hydrology and conditions in the Colorado River Basin. The Management Plan also will support the various interstate Colorado River activities that require the involvement of the Colorado River Commissioner and Authority staff.

In Fiscal Year (FY) 2023, Authority staff implemented its commitments under the Management Plan through its first annual Work Plan (FY23 Work Plan). The FY23 Work Plan was approved by the Board and includes activity details, estimated budgets, and timeframes for both FY23 and each remaining year of the Management Plan. In June 2023, the Board adopted its second annual Work Plan (FY24 Work Plan). Implementation of the FY23 Work Plan and key elements of the FY24 Work Plan are discussed herein.



The Management Plan encompasses the following three priority areas:



1 MEASUREMENT

We cannot effectively manage what we cannot measure. We must improve, expand, and support a water measurement network that delivers sound and transparent data.

2 HYDROLOGY & OPERATIONS

It is essential that we continually improve our understanding of hydrologic conditions, enhance our ability to make informed planning and policy recommendations, and identify opportunities to improve water management.

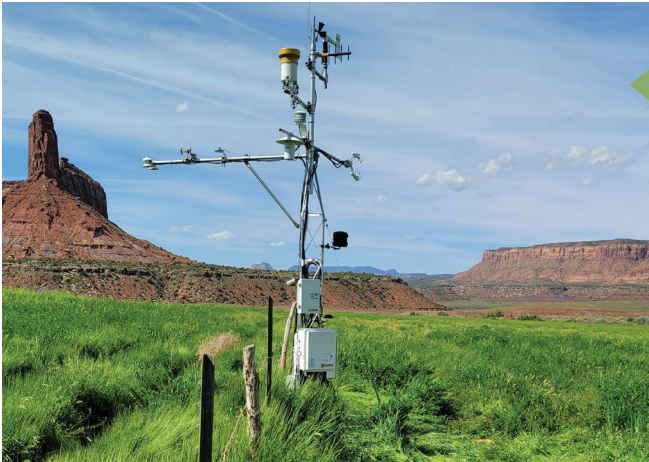
3 DROUGHT MITIGATION

Prudent water management requires measures that prepare us for and enable us to respond to water shortages. It is critical that Utah invest in researching and developing solutions that are adaptable and that enable a sustainable and resilient water supply for the Colorado River Basin.

B FISCAL YEAR 2023 WORK PLAN IMPLEMENTATION

On June 23, 2022, the Board approved the FY23 Work Plan. The approved annual budget for FY23 was \$4,361,000, which covered a combination of consultant activities, research activities, and instrument purchases for the year.

Highlighted Efforts



Eddy Covariance

In FY23, the Authority contracted with the Utah Geological Survey to expand the Utah Flux Network to include six new Eddy Covariance (EC) Towers for measurement of evapotranspiration and consumptive use of water, and to use the data to ground-truth remotely sensed evapotranspiration data from OpenET. In May 2023, the first new EC Tower was installed on an alfalfa-hay field at Dugout Ranch, part of The Nature Conservancy's Canyonlands Research Center.

Metering and Gaging Gap Analysis

In FY23, the Authority completed a Metering and Gaging Gap Analysis (Gap Analysis) to assess stream gaging and measurement needs on the Colorado River mainstem and its tributaries in Utah. The Gap Analysis will inform the Authority and partner State agencies on the next steps in improving and expanding the metering and gaging system within the Colorado River Basin of Utah.



Utah Colorado River Accounting and Forecasting (UCRAF)

In FY23, the Authority completed the first year of a pilot project to develop a Utah Colorado River Accounting and Forecasting (UCRAF) model for the Duchesne River Basin. UCRAF is a planning model that will allow the Authority to evaluate how drought mitigation measures impact water availability and water rights within a system.





FISCAL YEAR 2024 WORK PLAN



The Authority's second annual Work Plan for FY24 (July 1, 2023 to June 30, 2024) was approved by the Board on June 22, 2023. The total FY24 budget for this Work Plan is \$7,549,400. This Work Plan supports:

- Participation in intrastate and interstate Colorado River commitments
- Investigation and analysis of water supply and use measurement gaps
- Installation and maintenance of agricultural consumptive use measurement instrumentation to improve accuracy of remote sensing technology and other water use efficiency efforts
- Acquisition of consumptive use data using satellite-based remote sensing technology
- Research supporting water supply forecasting improvements
- Research supporting water use optimization and demand reduction
- Drought mitigation pilot projects
- Development of an accounting and forecasting model for the Colorado River System in Utah
- Modeling to evaluate effectiveness of proposed operations under the Drought Response Operating Agreement (DROA), other operations related to the 2019 Drought Contingency Plans (DCP), and/or emergency actions taken in response to river conditions in the short to mid-term
- Modeling to evaluate long-term Colorado River operating policy
- Oversight of Authority Advisory Councils

Activities and Work Plan elements described herein are supported by funding from several sources including annual appropriations and one-time appropriations to the Authority, in-kind goods and services provided to Authority by users of the Colorado River System, and appropriations supporting activities performed by the Department of Natural Resources in coordination with the Authority (Table 1).

Table 1. Summary of FY24 Work Plan elements, budgets, and funding sources.

Work Plan Element	FY24 Est. Budget ¹	FY25-FY27 Est. Budget ²	Funding Source ³
Colorado River Intrastate and Interstate Activities			
Intra/Interstate Engagement ³	\$1,663,400	\$5,323,900	Annual Appropriations, In-Kind
Measurement			
Metering and Gaging	\$1,000,000 ⁴	\$0	One-Time Appropriation
Consumptive Use Quantification	\$816,000	\$1,569,900	One-Time Appropriation
Hydrology and Operations			
Short- and Mid-Term Operations Modeling (CRMMS 24 Month Study/ESP)	\$200,000	\$150,000	One-Time Appropriation/In-Kind
Long-Term Operations Modeling (CRSS)	\$613,000	\$787,000	In-Kind
Climate and Hydrology Research	\$720,000	\$1,490,000	One-Time Appropriation/In-Kind, Federal Funds
Drought Mitigation			
Agricultural Water Resiliency Study	\$400,000	\$0	In-Kind
System Conservation Pilot Program	\$105,000	\$0	One-Time Appropriation
Agricultural Demonstration Research Implementation Pilot Program	\$1,000,000	\$4,000,000	One-Time Appropriation, In-Kind
Demand Management Pilots	TBD	\$5,000,000	One-Time
Utah Colorado River Accounting and Forecasting Model-San Rafael and Price River Drainages	\$751,000	\$602,000	One-Time
Advisory Councils			
Advisory Councils	\$281,000	\$843,000	Annual Appropriations
Total	\$7,549,400	\$19,765,800	

1. Total provided for under this Work Plan. Work Plan budgets are subject to adjustment depending on conditions and activities in the Colorado River Basin that may be unknown when the Work Plan was developed.
2. Total cost reflects estimate of three fiscal years from FY25 to FY27.
3. Estimated costs are for Authority staff and in-kind contributions only and do not include charges of other state agencies participating.
4. Funding from FY24 appropriation to DWRi and then to the Authority.

D ADVISORY COUNCILS



Background

UCA 63M-14-209 authorizes the Authority to create Advisory Councils to provide “data, information, and input... relevant to the mission and objectives of the authority.” In 2021, the Board adopted an Advisory Council rule to help guide council operations. The rule instructed the Advisory Councils to focus on two broad objectives:

- 1) Hear broad input, including recommendations, data and information regarding all matters affecting Utah’s Colorado River system water; and
- 2) Make recommendations to the Board in an advisory capacity.

NORTHERN

- Salt Lake County
- Summit County
- Utah County
- Wasatch County
- Juab County
- Sanpete County

CENTRAL

- Daggett County
- Duchesne County
- Uintah County
- Carbon County
- Emery County
- Grand County

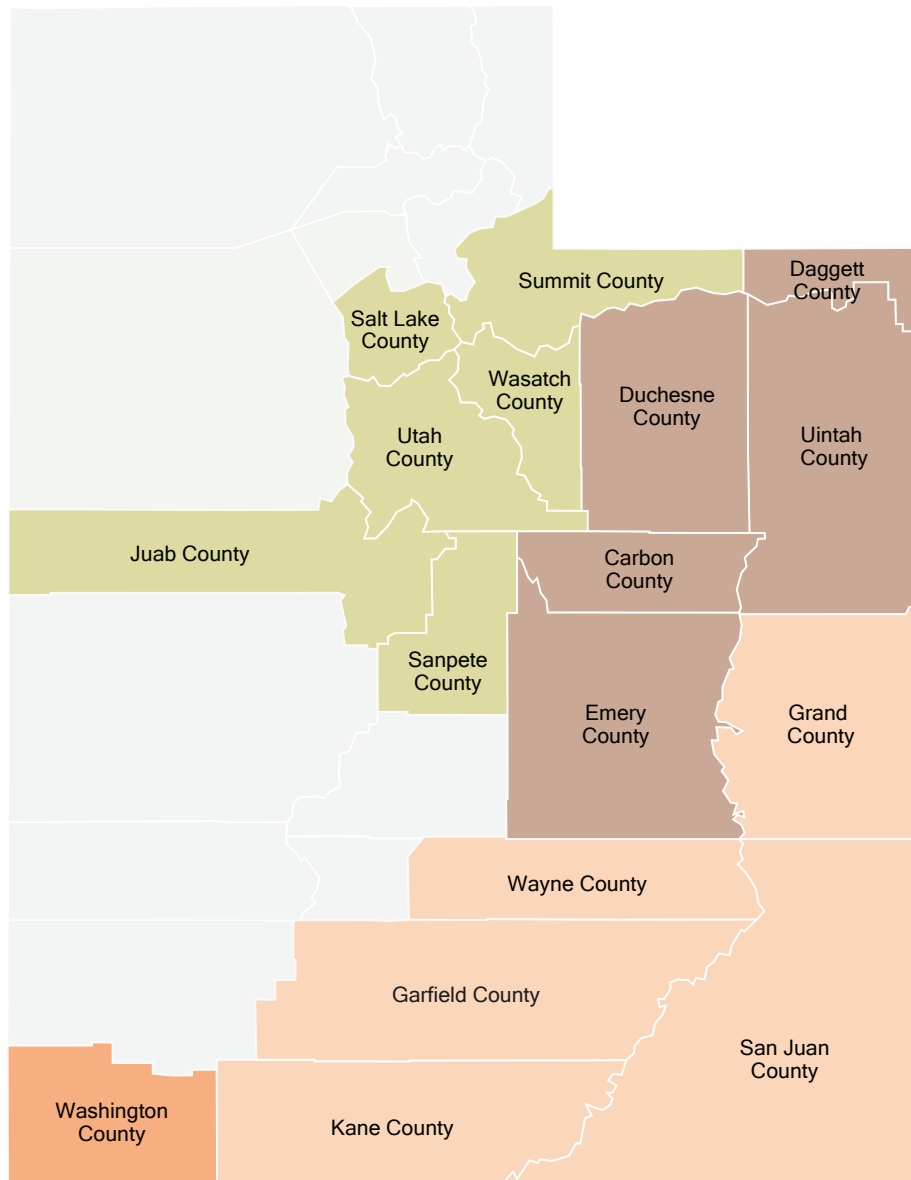
SOUTHERN

Southeastern

- Garfield County
- Grand County
- Kane County
- Wayne County
- San Juan County

Southwestern

- Washington County





The Advisory Councils provided a summary of recommendations to the Board in January of 2023. Since then, the Advisory Councils held dozens of additional meetings where council members shared, discussed, and developed ideas related to the challenges facing the Colorado River Basin.

Three significant developments have occurred with the Advisory Councils in 2023:

- 1 First**, educational site visits were prioritized. Tours were conducted in Washington County, Flaming Gorge Reservoir, Salt Lake City, and Green River Utah. These on-the-ground site visits proved popular and will likely continue to be a focus area for the councils in 2024.
- 2 Second**, in recognition of the vast geographic reach and unique interests of the southern council, two sub councils (a southeastern and southwestern) were created to minimize travel and allow for more localized discussions. This new structure was implemented starting in May 2023 and so far, has proven to be a successful adjustment.
- 3 Third**, the Advisory Councils collectively agree that the frequency and scope of dialogue and engagement between the Advisory Councils and the Board needs to improve. The Advisory Councils are taking steps to formalize more regular interaction with the Board.

Advisory Councils will continue to encourage discussion, promote education, and ensure that diverse Council perspectives and viewpoints are shared with the Utah Colorado River Commissioner, the Board, and other officials.



The Authority initiated an aggressive outreach campaign in early 2023 to help both the public and stakeholders better understand Authority activities and promote general understanding of key water issues. Outreach was accomplished by launching three distinct newsletters:

Monthly Newsletter

The Monthly Newsletter provides brief top-line summaries and commentary on the key national, interstate, and intrastate activities impacting the Colorado River and the state of Utah. Targeted towards policymakers, Advisory Council members, and other interested parties, the Monthly Newsletter provides the Authority with an important tool to increase awareness and share key updates with stakeholders.

Tribal Newsletter

The Tribal Newsletter is similar to the Monthly Newsletter, but it is targeted exclusively towards Tribal members and affiliated groups. Distributed on a quarterly basis, the Tribal Newsletter aims to identify the issues and developments that would be of most interest and concern to Utah-based Tribes.

Distilled News

Distilled News is the Authority's biweekly news service. Targeted at a general audience, this newsletter identifies the top 2-3 stories (along with additional readings for those seeking more in-depth coverage) that convey the most critical and impactful news related to the Colorado River. With so much news and activity on the River, Distilled News helps flag the key "can't miss" stories and helps readers stay informed of the various Colorado River developments.



New Authority Website

In an effort to provide greater accessibility and transparency, the Authority has revamped its website. [Visit the new website cra.utah.gov](https://cra.utah.gov)

G LEGISLATION



Over two dozen water-related bills passed during Utah's 2023 general legislative session. Three bills in particular could impact Colorado River operations in the state:

SB144 – Sen. David P. Hinkins

Senate Bill 144 amends Utah's instream flow statute to allow temporary change applications to deliver water to reservoirs located within the Colorado River System.

The purpose of the bill is to provide express recognition under Utah law that water voluntarily conserved for qualifying programs in Utah's portion of the Colorado River System has the legal protection needed to reach a reservoir such as Lake Powell. This bill would protect conserved water so that it can flow downstream to a reservoir without interference from other water users in the event a qualifying Demand Management program is established in the Upper Basin or Utah.

SB277 – Sen. Scott D. Sandall

Senate Bill 277 allows the Utah State Engineer to recognize saved water through change applications, and makes modifications to Utah's agricultural optimization policy. The bill reorganizes the Agricultural Water Optimization Program to be housed at the Utah Department of Agriculture and Food (UDAF). The bill also creates a new change application process by which a person implementing an agricultural water optimization project can seek a quantification of the "saved water" created by the project, which can then be used for other purposes that do not enlarge the depletion or diversion volumes of the saved water.

SB277 appropriates \$200 million for agricultural optimization along with another \$50 million ongoing for projects that benefit the Colorado River Basin of Utah including water reuse, dam construction, desalination and other conservation projects, and empowers the State Engineer to make the necessary rules to execute this law.

SB 119 – Sen. Michael K. McKell

Senate Bill 119 provides direction for per capita consumptive water use reporting in Utah. The bill defines per capita consumptive use as "a valid representation of total water consumed divided by the total population for a given area." The bill also provides definitions and clarifications on determining population, return flow, conserved water, and other items that factor into the per capita water use calculations.

H APPROPRIATIONS

An FY24 Ongoing Budget (\$1.5M) and One-Time Request (\$7M to support, in large part, the Management Plan) were approved by the Legislature in February 2023.



Interstate Colorado River Authority of Utah Activities

2

A

POST-2026 OPERATIONAL CRITERIA



The current operational criteria for Lake Powell and Lake Mead (the 2007 Interim Guidelines) are scheduled to expire in 2026. The 2007 Interim Guidelines establish coordinated operations of the two reservoirs and set the conditions for shortages to the Lower Basin. Establishing new criteria is subject to the National Environmental Policy Act (NEPA). On June 15, 2023, the Department of Interior, acting through the Bureau of Reclamation, issued a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the Post-2026 operational guidelines. On August 15, 2023 the Authority submitted comments to the NOI on behalf of the state of Utah. The Authority also participated in the drafting of comment letters submitted by the seven Colorado River Basin States and by the four Upper Division States acting through the Upper Colorado River Commission. The Authority will represent Utah in the negotiation and development of new operating criteria alternatives to be submitted to the Bureau of Reclamation for consideration in the ongoing NEPA process.



B SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT



In October 2022, the Department of Interior, acting under the National Environmental Policy Act (NEPA), issued a Notice of Intent (NOI) to Prepare a Supplemental Environmental Impact Statement (SEIS) for the 2007 Interim Operating Guidelines for Lake Powell and Lake Mead - the current operational criteria for the reservoir operations. In December 2022, the Authority submitted comments to the Department of Interior regarding the NOI on behalf of the state of Utah. The Authority also participated in the preparation of a joint comment letter submitted by the states of Arizona, Colorado, Nevada, New Mexico, and Wyoming. California submitted a separate comment letter.

In April 2023, the Department of Interior released the Draft SEIS for Near-term Colorado River Operations with two action alternatives, both of which included additional shortage volumes of up to 4.0 million acre-feet allocated to the Lower Basin. Action Alternative 1 distributed the shortage volumes in the Lower Basin based upon priority and Action Alternative 2 distributed the shortage volumes proportionally. Prior to the deadline to submit comments to the Draft SEIS, the Lower Division States of Arizona, California, and Nevada proposed a third alternative based upon voluntary conservation of water in the Lower Basin of at least 3 million acre-feet during the period 2024 to 2026. The states of the Upper Division, including Utah, joined with the Lower Division States to request that the Bureau of Reclamation evaluate the proposed third alternative before issuing a Final SEIS. In response, the Department of Interior withdrew the Draft SEIS subject to the Bureau of Reclamation review of the new alternative. The Department of the Interior released a revised Draft SEIS in October 2023, and a Record of Decision is anticipated in early 2024.

C DROUGHT RESPONSE OPERATIONS AGREEMENT



In April 2023, the Upper Division States of Utah, Colorado, New Mexico, and Wyoming, acting through the Upper Colorado River Commission approved a 2023 Drought Response Operations Plan (2023 DROA Plan). The Authority represented the state of Utah in the development of the 2023 DROA Plan. The 2023 Plan was subsequently approved by the Department of Interior. In response to the unusually wet hydrologic conditions during the winter of 2022-2023, the 2023 DROA Plan focused solely on the recovery of water released under the 2021 and 2022 DROA Plans, and prior emergency actions. It is anticipated that all water previously released from Flaming Gorge (approximately 588,000 acre-feet) will be recovered by the end of February 2024 and that the water previously released from Blue Mesa Reservoir will be recovered by the end of December 2023.

In September 2023, the Upper Colorado River Commission adopted a resolution, “Clarifying Principles for Future Releases from Upstream Initial Units Under the 2019 Drought Response Operations Agreement.” The principles included in this resolution ensure that water released to Lake Powell is retained there until full recovery is achieved upstream, that DROA releases will not negatively impact operations such that more water is released from Lake Powell than would have been without DROA, and that future DROA releases will not cause an overall reduction in Lake Powell elevations. The resolution further states that the Upper Division States (through the Upper Colorado River Commission) will only approve future DROA plans involving releases from upstream Initial Units if they satisfy the goals and intent of DROA.



D 2023 SYSTEM CONSERVATION PILOT PROGRAM



The Upper Colorado River Commission administered the 2023 System Conservation Pilot Program (SCPP) as part of its 5-Point Plan. The Colorado River Authority of Utah facilitated the program in Utah under direction of the Drought Mitigation priority area of the Management Plan. SCPP provides municipal, industrial, and agricultural water users an opportunity to conserve consumptively used water through temporary, voluntary, and compensated projects. In total, 64 projects were implemented: 20 in Utah, 20 in Wyoming, 22 in Colorado, and 1 in New Mexico. Outcomes of SCPP 2023 are summarized in the table 2 below.

Table 2. Upper Basin and Utah SCPP Projects

Total:	4-State	Utah
Project Types	Ag, Municipal, Industrial	Ag, Municipal, Industrial
Selected Projects	64	20 (31% of total)
Conserved Volume (Acre-Feet)	37,810	15,090 (40% of total)
Total Expense	\$15,969,035	\$5,661,60 (34% of total)
Weighted Average Price Per Acre-Foot	\$422	\$360





Colorado River Authority of Utah

60 E. South Temple, Suite 850
Salt Lake City, Utah 84111