

Colorado River Authority of Utah

2024 ANNUAL REPORT | Fiscal Year 2024-2025



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EXECUTIVE DIRECTOR'S MESSAGE



Dear Governor Cox and Legislative Management Committee,

In 2024, the Colorado River Authority of Utah celebrated its third year of existence thanks to the shared vision of Utah Senate President Stuart Adams and former Speaker of the House Brad Wilson. In 2021, these two leaders saw an unmet need in the state on Colorado River matters and responded to it by creating the Authority. A mere 3 years later, the Authority has made strides to ensure that Utah can claim its share of the Colorado River while balancing the urgent needs of water conservation and sustainability. This year has brought notable developments that directly impact Utah's water future, as we navigate the challenges of persistent drought, population growth, and increasing demand on water supplies.

One of the most significant developments in 2024 has been Utah's participation in the renegotiation of long-term guidelines for managing the Colorado River, particularly the operations of Lake Powell and Lake Mead, beginning in 2026 when the current guidelines expire. The seven Western states that depend on the river's water, together with the federal government and with input from key stakeholders and Colorado River Tribes, are actively negotiating these guidelines in the context of a National Environmental Policy Act (NEPA) process. Facing a future with less water, the states disagree on who should have to reduce their Colorado River water use, and by how much. These talks are critical, as they address water allocations amid declining levels in Lake Powell and Lake Mead due to chronic overuse and the impacts of extended drought and climate change. Utah's leadership in advocating for equitable solutions that respect our state's entitlements and obligations under the Colorado River compacts has been a key focus this year.

Another key highlight of 2024 has been the increasing focus on conservation measures in agriculture, which remains the largest consumer of Colorado River water. Innovations in measurement, irrigation technology, and incentives for water-efficient farming practices have helped reduce agricultural water use in both the Upper and Lower Basins. Agricultural water use remains a key focus for the state, and we are working closely with farmers and water districts to optimize practices without compromising production.

The year has also been marked by advances in interstate collaboration between the Upper Division States of Utah, Wyoming, Colorado, and New Mexico and Upper Basin Colorado River Tribes. In April 2024, six Upper Basin Tribes and the Upper Division States entered into a historic agreement to seek a common understanding and cooperation on interstate Colorado

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River issues. The agreement is the culmination of discussions that began in August 2022. This partnership highlights the growing recognition of the importance of the Tribes in managing and conserving the river's resources.

As we conclude 2024, Utah continues to play a crucial role in the ongoing efforts to manage the Colorado River, a vital resource for our state and much of the West. As the intensity of the interstate negotiations over the future management of the river grows, the Colorado River Authority of Utah remains committed to fostering collaboration, conservation, and innovation to ensure a secure water future for all Utahns who depend on this vital resource.

Thank you for your continued engagement and partnership in safeguarding the Colorado River.

Sincerely,

Amy I. Hars

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



Paul Tsosie Tribal Representative

Dan Larsen

and Uinta Counties

Uinta Basin Area: Duchesne



Zach Renstrom Virgin River Area: Kane and **Washington Counties**



Jay Mark Humphrey Price and San Rafael Area: Carbon and Emery Counties



Authority Staff

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Wendy Crowther Assistant Attorney General

Logan Anderson Manager of Administration and Finance



Candice Hasenyager State of Utah Area: Remaining Utah Colorado River users



Intrastate Colorado River Authority of Utah Activities

COLORADO RIVER MANAGEMENT PLAN



On April 21, 2022 the Colorado River Authority of Utah adopted a five-year Management Plan to accomplish its statutory mission to "protect, conserve, use 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 is providing 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 23- Fiscal Year 27). The Management Plan is meant to be dynamic to respond to changing hydrology and conditions in the Colorado River Basin. The Management Plan supports the various interstate Colorado River activities that require the involvement of the River Commissioner and Authority staff.

In accordance with the Management Plan, annual plans (Work Plans) are developed and approved by the Authority Board. Work Plans include implementation, activity details, estimated budgets, and timeframes for projects related to the three priority areas of the Management Plan. In 2024, the Board approved the Authority's third annual Work Plan (Fiscal Year (FY) 2025 Work Plan), which builds upon work initiated in the FY23 and FY24 Work Plans. Implementation of the FY24 Work Plan and key elements of the FY25 Work Plan are discussed herein.





The Management Plan encompasses the following three priority areas:

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

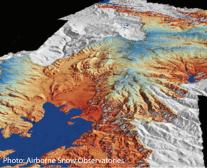
It is essential that we continually improve our understanding of hydrologic conditions, enhance our ability to make informed planning and policy recommendations, and identify opportunities to improve water management.

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.

On June 22, 2023, the Authority Board approved the FY24 Work Plan. The approved annual budget for FY24 was \$7,549,000, which covered model development, drought mitigation measures, and investment in stream flow diversion measurement.

Highlighted Efforts







Measurement – OpenET

OpenET is supporting public, transparent, and reproducible measurement of evapotranspiration (also referred to as depletion or consumptive water use in agriculture). OpenET data is produced from field to basin scale using satellite-based remote sensing. In FY24, OpenET completed production of a 1991-2023 historical dataset and report for the Colorado River system in Utah.

Access the data and reports: https://etdata.org

Hydrology & Operations – Flakes, Flights, & Forecasts

In FY24 the Authority began "Flakes, Flights, and Forecasts: Snow Measurement Enhancements in he Uinta Mountain Headwaters" as the first-ever Airborne Snow Observatories Pilot Project in Utah. From 2024 through 2026, the project is generating the bestavailable remotely sensed snow data, developing models of snowpack and runoff forecasts, and integrating data into operation and planning tools for reliable management of Utah's water supply. Central Utah Water Conservancy District, Division of Water Resources, and Bureau of Reclamation are funding partners.

Access the data and reports: https://data.airbornesnowobservatories.com/

Drought Mitigation – Demand Management Pilot Program

The Authority has initiated a Utah Demand Management Pilot Program to maintain viable agricultural communities by facilitating temporary, voluntary, compensated, and protected conservation of water use via a reduction of water depletion by water users, with the ultimate goal of ensuring continued Colorado River Compact compliance. The Pilot Program will create a framework for management of conserved water consistent with both state and federal regulations, test practical conservation methods, explore conditions for water user participation, and assess the economic viability of different projects. In FY24, the Authority procured Jacobs Engineering Group to support Pilot Program work, and established close coordination with Division of Water Rights, Utah Department of Agriculture and Food, and other key collaborators.



FISCAL YEAR 2025 ANNUAL WORK PLAN

The Authority's third annual Work Plan for FY25 (July 1, 2024 to June 30, 2025) was approved by the Board on June 18, 2024. The total estimated FY25 budget for this Work Plan is \$7,500,000. This Work Plan supports:

- Participation in intrastate and interstate Colorado River commitments
- Investment in streamflow and diversion measurement
- Installation and maintenance of agricultural consumptive use measurement instrumentation
- 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
- Participation in federal funding opportunities
- Drought mitigation pilot projects
- Development of the Utah Colorado River Accounting and Forecasting planning model (UCRAF) in the Colorado River system in Utah
- Modeling to evaluate short-, mid-, and 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 ongoing appropriations and one-time appropriations to the Authority from the Utah Legislature, in-kind goods and services provided to the Authority by Utah Colorado River water users, and various federal funding sources (Table 1).

Table 1: Summary of FY25 Work Plan elements, budgets, and funding sources.

Section	Work Plan Element	Authority Funds	External Contributions	Federal Funds ¹	Total ²				
Intrastate and Interstate Activities									
3	Personnel	\$1,140,000	\$400,000	\$ -	\$1,540,000				
3	Travel	\$60,000	\$40,000	\$ -	\$100,000				
4	Advisory Councils	\$255,000	\$ -	\$ -	\$255,000				
Measurement									
5.2	Coordination & Implementation Planning	TBD	\$ -	TBD	TBD				
5.3	USGS Stream Gages	\$ -	\$ -	\$163,000	\$163,000				
5.3	Streamflow & Diversion Measurement	TBD	TBD	TBD	TBD				
5.4	Utah Flux Network	\$121,000	\$ -	\$331,000	\$452,000				
5.5	OpenET	\$535,000	\$ -	\$ -	\$535,000				
5.6	Advection Impacts on Evapotranspiration	\$50,000	\$ -	\$50,000	\$100,000				
Hydrology and Operations									
6.1	Short- & Mid-term Operations Modeling	\$ -	\$85,000	\$-	\$85,000				
6.2	Long-term Operations Modeling	\$ -	\$490,000	\$-	\$490,000				
6.3	Transit Loss Study	\$ -	\$ -	TBD	TBD				
6.4	Climate & Hydrology Research	\$20,000	\$ -	\$ -	\$20,000				
6.5	Snowpack, Runoff, & Operations Project	\$181,000	\$98,000	\$279,000	\$558,000				
Drought Mitigation									
7.2	Emery County Irrigation Efficiency Study	TBD	\$ -	TBD	TBD				
7.3-7.4	UCRAF (Duchesne, San Rafael, and Price River Basins)	\$762,000	\$ -	\$ -	\$762,000				
7.5	Decision Support Mapping Tool for Drought Mitigation	\$ -	\$5,000	\$ -	\$5,000				
7.6	Utah Demand Management Pilot Program	\$1,435,000	\$ -	\$ -	\$1,435,000				
7.7	AG-DRIP Pilot Program	\$500,000	\$500,000	\$ -	\$1,000,000				
TOTAL		\$5,059,000	\$1,618,000	\$823,000	\$7,500,000				

^{1.} Federal funding sources include Bipartisan Infrastructure Law, Inflation Reduction Act, and WaterSMART.

^{2.} The totals provided for under this Work Plan are estimates for FY25 only. 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. Projects that are part of the Work Plan but don't have planned expenses in FY25 are not included.

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 Authority Board adopted an Advisory Council rule to help guide council operations. The rule instructed the 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 Authority Board in an advisory capacity.

NORTHERN

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

CENTRAL

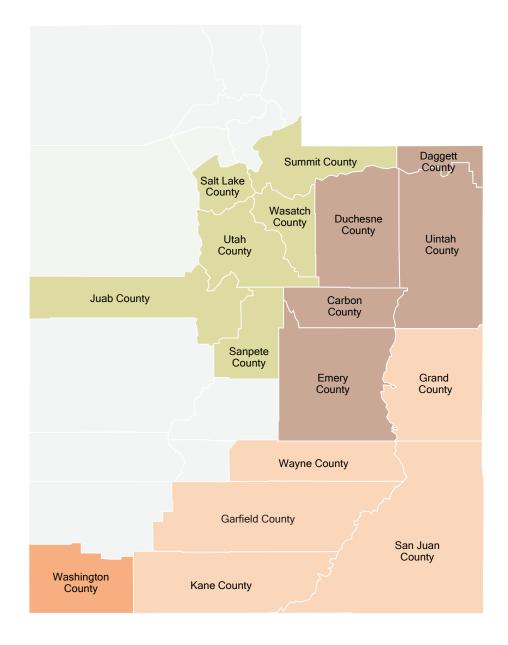
Daggett County Duchesne County Uintah County Carbon County Emery County Grand County

SOUTHERN

Southeastern

Garfield County Grand County Kane County Wayne County San Juan County

Southwestern Washington County



FY24 Progress

Each of the three Advisory Councils provided a summary of their annual recommendations to the Colorado River Authority Board in January of 2024. Since then, the Advisory Councils held dozens of additional meetings where council members heard from guest speakers and discussed key trends and ideas related to the Colorado River Basin. Some of these recommendations included:

- Keep Colorado River water in the Colorado River system
- Consider and explore additional state storage projects
- Promote conservation efforts
- Protect and keep in mind impacts on local economies
- Coordinate to the greatest extent possible with sister agencies on measurement efforts to avoid duplication and ensure maximum coverage
- Listen to agricultural and rural voices
- Urge the Board to publicly utilize scenario planning of potential implications of curtailment of Colorado River water
- Protect Flaming Gorge
- Aggressively pursue and wisely use Federal Funding
- The Authority consider environmental needs and impacts

In August 2024, the Authority sponsored a half-day float tour of the Green River where Advisory Council members heard from Colorado River Commissioner Gene Shawcroft, representatives from the United States Forest Service, and local officials. Nearly 40 individuals participated including the Co-Chairs and members of all four Advisory Councils, Authority Board members, representatives from the Governor's Office, and local elected officials. The tour provided an opportunity for Advisory Council members to both network and learn from key water officials while experiencing the river firsthand.



Developments

The most significant development to the Advisory Councils in 2024 was the launch of a new Agriculture Advisory Council. Early in 2024, the Colorado River Authority of Utah and the Utah Farm Bureau Federation began discussing ways to improve collaboration and communication between the Authority and Utah farmers and

ranchers who depend on water from the Colorado River. Agriculture plays a key role in Utah's Colorado River allocation. Approximately 62% of Colorado River water use in Utah is for agriculture.

To improve stakeholder dialogue and input from the agricultural community on Colorado River matters, the Utah Farm Bureau proposed the idea of creating an Agriculture Advisory Council to the Authority. The Authority readily agreed to the idea and in coordination with the Farm Bureau, we identified a co-chair and invited members to join the new council.

The first official meeting of the new council occurred on May 9 and several subsequent meetings of this council have been held this year. The Authority takes seriously the role agriculture plays in the state and is encouraged by the robust engagement this new council has helped foster.

E OUTREACH



The Authority continued its aggressive outreach campaign in 2024 to help both the public and stakeholders better understand Authority activities and promote general understanding of key water issues.

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.

Distilled News

Distilled News is the Authority's biweekly news service. Targeted at a general audience, this newsletter identifies the top 3-4 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 flags the key "can't miss" stories and helps readers stay informed of the various Colorado River developments.

Media Availabilities

This year the Authority began hosting semi-regular news availabilities where Utah's news media was invited to engage directly with the River Commissioner (Gene Shawcroft) and key Authority staff. These availabilities provided a key tool to share information quickly and to answer the media's most pressing questions related to the Colorado River.

Great Salt Lake/Colorado River Collaborative

Another exciting 2024 development in the outreach and communications arena was the launch of two innovative "collaboratives" - where several news, education and media organizations joined forces to better inform and engage the public about the Great Salt Lake and the Colorado River. The Authority has supported both efforts and has seen enhanced coverage and understanding of these issues as a result of these collaboratives.

F

2024 LEGISLATION



Several important water-related bills passed during the 2024 session of the Utah Legislature. Below are bill summaries of three pieces of legislation that could impact Utah's use and allocation of the Colorado River:

House Bill 280 - Water Related Changes - Rep. Casey Snider

HB 280 addresses the financing of water infrastructure projects in the state of Utah. This bill creates the Water Infrastructure Fund to provide money to help pay for the Council's water infrastructure prioritization activities and modifies the state water plan, the Water Development Coordinating Council, and the Watershed Councils Act.

Senate Bill 18 - Water Modifications - Sen. Scott D. Sandall

SB 18 updates policies that allow water users who install agricultural water optimization projects to put "saved water" to another beneficial use. The bill also clarifies that saved water cannot increase the depletion of the underlying water right.

Senate Bill 211 - Generational Water Infrastructure Amendments - Sen. Stuart Adams
SB 211 creates a Water District Water Development Council and tasks them with
planning for "generational water infrastructure." The bill also creates a new "Utah Water
Agent" to represent Utah in interstate negotiations outside the Bear River and Colorado
River drainages. The Utah water agent is tasked with exploring and negotiating
interstate water importation projects.



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 the coordinated operations of the two reservoirs and set the conditions for Lower Basin shortage. 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 on the NOI on behalf of the state of Utah. The Authority also participated in the drafting of comment letters submitted by both the seven Colorado River Basin States and by the four Upper Division States of Utah, Colorado, Wyoming, and New Mexico. The Utah River Commissioner represents Utah in the negotiation and development of new operating criteria to be submitted to the Bureau of Reclamation for consideration in the ongoing NEPA process. In March 2024, the Upper Division States jointly submitted a proposal to the Bureau of Reclamation for consideration and evaluation as an alternative for Post-2026 operations of Lake Powell and Lake Mead. A proposal was also submitted by the Lower Division States. The Authority has played a significant role in providing modeling and other technical expertise in the development of the Upper Division State proposal to the benefit of all four Upper Division States.

The Bureau of Reclamation is evaluating the proposal, while the seven Colorado River Basin States continue to negotiate and work to develop a consensus proposal for post-2026 operations.

В

FEDERAL FUNDING

Under the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) significant federal funding has been made available for projects in the Upper Colorado River Basin. The BIL provides \$50 million to support the Upper Basin Drought Contingency Plan, including improvements in water measurement. The IRA provides \$450 million in the Upper Basin for drought mitigation including water conservation and environmental/ecological projects. The IRA supported the Upper Basin System Conservation Pilot Program in 2023 and 2024. The Authority is working with the Upper Division States, the Upper Colorado River Commission, and the Bureau of Reclamation to identify, select, and fund projects in the Upper Basin that will result in conserved water or environmental/ecological benefits.



LTEMP SEIS

Long-Term Experimental and Management Plan Supplemental Environmental Impact Statement

On July 3rd, 2024, the Bureau of Reclamation signed the Record of Decision for the Long-Term Experimental and Management Plan Supplemental Environmental Impact Statement (LTEMP SEIS). This decision modifies the 2016 LTEMP to allow for dam releases that disrupt smallmouth bass establishment below Glen Canyon Dam and modifies the high-flow experiment protocol to incorporate the latest scientific information on Grand Canyon sediment. The LTEMP provides a framework for adaptively managing Glen Canyon Dam consistent with the Grand Canyon Protection Act. While other efforts modify annual releases from Glen Canyon Dam (e.g., 2007 Interim Guidelines, Near-Term SEIS), the LTEMP identifies specific sub-annual releases (hourly, daily, monthly) and experimental and management actions that may be conducted to meet downstream resource goals.

On July 9th, 2024, Reclamation began releases from Lake Powell through Glen Canyon Dam to disrupt the establishment of smallmouth bass, which could negatively affect populations of threatened humpback chub in Grand Canyon. The need for these flows was triggered after the average observed daily water temperatures at river mile 61 (confluence of the Little Colorado River) reached smallmouth bass reproduction thresholds above 15.5 degrees Celsius (60 degrees Fahrenheit). The preferred alternative for 2024 is a 'cool mix flow' that includes releases from the hydropower penstocks as well as the river outlet works, which are approximately 100 feet below the penstocks and can release cool water deep in the reservoir. The releases are designed to keep water temperatures at river mile 61 below 15.5 degrees Celsius. Monitoring will occur throughout the 2024 implementation to assess the impact and effectiveness of experimental flows.



D

2024 SYSTEM CONSERVATION PILOT PROGRAM

In 2024 the Upper Colorado River Commission administered the 2024 System Conservation Pilot Program (SCPP) in the Upper Colorado River Basin. 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, 110 projects were implemented: 31 in Utah, 32 in Wyoming, 46 in Colorado, and 1 in New Mexico. Outcomes of SCPP 2024 are summarized in Table 2 below.

Table 2: Upper Basin and Utah SCPP 2024 Projects.

Program-Wide:	4-State:	Utah:	
Selected Projects	110	31 (28% of total)	
Project Types	Ag, Municipal, Industrial	Ag, Municipal, Industrial	
Estimated Conserved Volume (Acre-Feet)	64,070	22,351 (35% of total)	
Total Compensation	\$28,831,557	\$9,954,819 (33% of total)	
Price Per Acre-Foot	\$150 Storage Forbearance \$506 Utah Commodity \$509 Colorado Commodity \$492 Wyoming Commodity \$300 New Mexico Commodity	\$150 Storage Forbearance \$506 Utah Commodity	



Colorado River Authority of Utah

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