

**DRAFT MEETING MINUTES**  
**Colorado River Authority of Utah**  
**August 24, 2023 -- 1:00 p.m. MT**

60 E South Temple 1<sup>st</sup> Floor Conference Room, Salt Lake City, UT 84111

1. **Call to Order – Gene Shawcroft, Chair**

Mr. Shawcroft called the meeting to order at 1:00 pm stating there was a quorum and asked each attendee to briefly introduce themselves. A list of attendees is included in Attachment I.

2. **Approval of the Minutes of the June 22, 2023, Colorado River Authority of Utah Meeting – Gene Shawcroft**

There being no comments on the June 22, 2023 minutes, a motion was made by Mr. Larson and seconded by Mr. Humphrey to approve the minutes. The motion was unanimously approved by the Board.

3. **Public Comment Pursuant to the Public Comment Policy of the Authority (limit of 2 minutes per person) – Gene Shawcroft**

There were no public comments.

4. **Report of the Chair – Gene Shawcroft**

Mr. Shawcroft discussed the National Environmental Policy Act (NEPA) process for the Post-2026 Operations stating comments were due on August 15, 2023. Utah, through Mr. Shawcroft as the Colorado River Commissioner, was signatory to four letters: a seven states letter, a four upper division states letter, an Upper Colorado River Commission (UCRC) letter, and a State of Utah letter. Mr. Shawcroft explained the next steps are to develop the Basin States Alternative, which will begin in the next few days. Mr. Shawcroft explained the Scoping Report from Reclamation is expected to be out later this year, and that he is optimistic about having a Basin States Alternative in Spring/Summer of 2024 and a draft Environmental Impact Statement (EIS) by December 2024.

Mr. Shawcroft announced the Authority will be hosting a Seven-States Workshop October 16-18, 2023 at Zermatt Resort in Midway, Utah where the states will begin working on the alternative. Mr. Shawcroft explained the federal government held a kickoff meeting with all the Tribes on the river in Phoenix on August 10, 2023, and that he looks forward to additional meetings. Mr. Shawcroft discussed the Supplemental Environmental Impact Statement (SEIS) process, which will analyze the operation of Lake Powell, stating comments were due earlier this year and the original action alternatives have been analyzed but are no longer being considered, according to the Bureau of Reclamation.

Mr. Shawcroft explained the UCRC will be meeting to review the 2023 System Conservation Pilot Program (SCPP) on August 29, 2023, and to discuss conservation program options for 2024. Mr. Shawcroft introduced Lily Bosworth whom he stated could provide specifics about the 2023 SCPP projects, including Utah participation. Mr. Shawcroft explained the UCRC meeting will also address the current Drought Response Operations Agreement (DROA) Plan, which focuses on the full recovery of 2021 and 2022 releases totaling 588,267 acre-feet of water from Flaming Gorge expected by late February 2024.

Mr. Shawcroft turned the meeting over to individuals to make brief remarks:

Bipartisan Infrastructure Law funding update – Bart Leeflang

Mr. Leeflang stated there was \$50 M allocated to the Upper Basin for activities including the

installation of EC towers, weather stations, and other measurement devices. Mr. Leeflang explained the funding is now a mechanism to federally fund the enhanced measurements that the Colorado River Authority of Utah is pursuing.

Salinity Control Act Fix legislation – Candice Hasenyager

Ms. Hasenyager explained the Salinity Control Act is an effort to reduce the salt load in the Colorado River. Ms. Hasenyager stated the Act was established in 1974 and because most of the salt load originates on federal land, the federal government has invested a significant amount of money into the program. Ms. Hasenyager explained that to date there has been about 1.33 M tons of salinity control in the Colorado River system which is jointly funded 70/30 by the federal government and the Seven Basin States. The Fix legislation has been created to change the ratio to 85/15.

Upper Colorado River Recovery Programs Reauthorization Legislation – Cody Stewart

Mr. Stewart discussed the Upper Colorado and San Juan River Fish Recovery Reauthorization Programs and stated Bill S2247 was introduced to the Senate by Senators Romney and Hickenlooper to reauthorize and continue to fund these programs for an additional seven years.

Adaptive Management Workgroup (AMWG) Meeting – Betsy Morgan

Ms. Morgan discussed the Glen Canyon Dam Adaptive Management Workgroup (AMWG) meeting that was held in Flagstaff, Arizona on August 16-17, 2023, and explained AMWG is a federal advisory committee that provides recommendations to the Secretary of the Interior on sub-annual operations at Glen Canyon Dam. Going forward, Amy Haas will serve as the primary member for Utah and Betsy Morgan will serve as alternate. The AMWG passed two motions by consensus and discussed several issues related to non-native fish below Glen Canyon.

Mr. Shawcroft mentioned Danny Schoenfeld has left the Authority to pursue employment with the National Guard and a new employee has been hired and will start on Tuesday, September 5, 2023.

5. **Colorado River System Status Update & August 24-Month Study Results – Heather Patno, Upper Colorado Region, US Bureau of Reclamation**

Ms. Patno discussed the Upper Basin Storage as of August 23, 2023 which shows Fontenelle Reservoir at 94%, Flaming Gorge Reservoir at 90%, Morrow Point Reservoir at 95%, Navajo Reservoir at 74% and Lake Powell at 38%. Ms. Patno explained Lake Powell increased almost 65 feet in elevation in the 2023 water year. Ms. Patno noted the Month to Date Precipitation and the Water Year Precipitation were both slightly above average. Ms. Patno discussed the 8–14 day precipitation outlook showed above average precipitation for the Seven Basin States. Ms. Patno discussed the Upper Colorado Snow Water Equivalent (SWE) and explained there is a significant difference between this year and last year where this year's snowpack peaked on April 7<sup>th</sup> at 161% of median. Ms. Patno explained the most probable August preliminary observed unregulated inflow was above average for all the reservoirs and the unregulated inflow forecast was also above average for all the reservoirs. Ms. Patno discussed the Lake Powell Unregulated Inflow for Water Year 2023 and 2024 forecast and explained the 2023 water year was one of the highest in the last 23 years.

Ms. Patno discussed the assumptions being used for Upper Basin Reservoir Operations for Water Years 2023 and 2024 where Lake Powell will be operated consistent with the 2007 Interim Guidelines, the Upper Basin Drought Response Operations Agreement and Upper Basin Records of Decision. Additionally, Ms. Patno explained Lake Powell Water Year 2023 will operate in the

Lower Elevation Balancing Tier and Lake Powell Water Year 2024 will operate in the Mid-Elevation Release Tier where Lake Powell will release 7.48 M acre-feet. Ms. Patno explained Reclamation will consult with the Basin States on monthly and annual operations to preserve benefits to Glen Canyon Dam facilities, and Reclamation will also ensure all appropriate consultation with the Basin Tribes, the Republic of Mexico, and other federal agencies, water users and non-governmental organizations with respect to implementation of the monthly and annual operations.

Ms. Patno discussed the Lake Powell and Lake Mead Operational tier determination, explaining that the January 1, 2024 projections estimate Lake Powell will be at 3,568 feet surface elevation and Lake Mead at 1,065 feet surface elevation. Ms. Patno provided a review of DROA, explaining that Flaming Gorge has continued to recover water volume and the total DROA recovery volume for the reservoirs is 296 K acre-feet. Ms. Patno explained that with incremental recovery, Flaming Gorge is expected to reach full recovery at the end of February 2024. Ms. Patno discussed the potential Lake Powell monthly release volume distribution for Water Year 2023 and explained the most probable release scenario was 8.86 M acre-feet and for Water Year 2024 the most probable release scenario was 7.48 M acre-feet. Ms. Patno discussed Lake Mead conditions, stating the most probable fill for 2023 was 34% full and for 2024 was 32% full.

6. **Management Plan Implementation – Lily Bosworth, Staff Engineer, and Betsy Morgan, Staff Engineer**

Ms. Bosworth announced there were several contractors attending the meeting discuss their contributions to the Management Plan and Work Plans.

Metering & Gaging Gap Analysis – Craig Bagley, Bowen Collins & Associates

Mr. Bagley discussed the Metering & Gaging Gap Analysis Study stating the primary objectives were to: Identify water supply and use measurement gaps in the Colorado River system in Utah; Utilize study results to improve understanding of Colorado River water supply; and Develop information that will allow the Authority to work with other agencies to improve, expand, and support a water measurement network that produces sound and transparent data that is publicly available. Mr. Bagley explained the major deliverables which included a digital geodatabase of existing and proposed water measurement infrastructure, a report that summarized work performed and identified water measurement data gaps, general prioritization and cost information associated with proposed improvements to address the identified gaps, and a Technical Appendix with supporting data.

Utah Flux Network – Paul Inkenbrandt, Utah Geological Survey

Mr. Inkenbrandt introduced the team at the Utah Geological Survey (UGS) and explained the progress they have made: Wrapped up details on the large station order; Received inventoried stations; Built one station at the Canyonlands Research Center this spring; Set up a Phenocam and some equipment at another station on Cedar Mesa; and Verified the possibility of an Escalante station. Mr. Inkenbrandt explained the various atmospheric measurement devices on the Eddy Covariance (EC) Tower at the new station at Dugout Ranch as well as the soil measurement devices beneath the EC tower. Mr. Inkenbrandt explained there would be a total of six new towers installed by UGS for the Authority.

OpenET – Maurice Hall, OpenET

Mr. Hall discussed a progress report against the contract timeline and deliverables that shows that accuracy assessment with currently available flux towers and evaluation of the number of sensors, locations, and methodologies necessary to increase confidence in OpenET output have been

100% completed. Mr. Hall explained they were on track with historic data production and delivery and in August and September would be starting correlation of OpenET historic data to crop coefficient methods for determining consumptive use and two updates to the OpenET ensemble evapotranspiration (ET) value for Utah as needed for available historic and forward-looking years. Mr. Hall discussed the ongoing support being provided including: Application Program Interface (API) access and user support; Near real time data production; API and User Interface (UI) maintenance and updates; and Project management coordination, and explained that only 5% has been billed against these activities. Mr. Hall explained the API, which provides broader use of the data for improved water management across the US by making it much easier to integrate the data into water management plans and programs, modeling efforts, and decision support tools and processes, is planned for release in September.

Utah Colorado River Accounting and Forecasting (UCRAF) Model – Shane Coors, Precision Water Resources Engineering, Mike Follum, Follum Hydrologic Solutions

Mr. Coors explained that as conditions in the Colorado River Basin get drier and use in the Basin increases, the need to use water more efficiently and track water more precisely grows. Mr. Coors further explained that Colorado River water users in Utah may soon be required to alter the water balance in specific and significant ways to address current challenges. Mr. Coors discussed the UCRAF project phases which will go through June of 2025 and explained the scope of work was enlarged to include the Price and San Rafael River Basins. Mr. Coors discussed the UCRAF Decision Support Tool, which is a system of technical tools that capture the current water balance in a Basin and enable exploring changes to the water balance and what the implications would be. Mr. Coors explained the RiverWare Model and UCRAF Application, which is a planning tool to assess the impact of drought mitigation measures. Mr. Coors discussed the Duchesne River Basin current progress and the two phases of the project.

Agricultural Water Demonstration, Research, and Implementation Pilot Program (AG-DRIP) – Matt Yost, Utah State University Extension

Mr. Yost explained the AG-DRIP Program is jointly funded by the Authority and Central Utah Water Conservancy District, supports the agricultural industry to help build resiliency to drought and water shortage, and helps prepare the agricultural industry for participation in demand management programs. Mr. Yost discussed four key components of the effort: Irrigation Evaluation/Plans; Irrigation Support; Alternative Crop Seed; and Compensation for Reporting. Mr. Yost discussed the 2023 participants which include 19 farmers (4,500 acres) and 2 irrigation companies. Mr. Yost explained the next steps for 2023 participants were to finalize irrigation management plans, share soil and irrigation data, train participants on using soil moisture sensors, complete irrigation system evaluations, and conduct water manager field days.

Cultivating a Resilient Water Supply for Utah's Agriculture – Scott Morrison, Jacobs Engineering

Mr. Morrison explained that in 2021 Central Utah Water Conservancy District finalized their Drought Mitigation Plan, which can inform the Authority's Drought Mitigation priority area along with Measurement and Hydrology and Operations priority areas. Mr. Morrison discussed the Agricultural Water Resiliency Plan tasks to date which include study areas in Central Utah Water Conservancy Districts Service area and Colorado River Basin Lands within Utah. Mr. Morrison provided a project status update for each of the two tasks showing the percentage complete of scope items for each. Mr. Morrison explained preliminary study results, showing that the Jacob's Water Resource Inventory analysis estimated ~780 K acre-feet of water are available for use during a wet year, and ~310 K acre-feet of water are available for use during a dry year. The Water Demand Analysis suggested ~581 K acre-feet are depleted during an average year,

and all results align with other data sets. Mr. Morrison explained that going forward, they will draft Technical Memorandums (TMs) and have the TMs peer reviewed.

7. **Request Support for a Matching Contribution for Potential Snow Water Supply Forecasting Project through the U.S. Bureau of Reclamation – Lily Bosworth**

Ms. Bosworth stated she was requesting support for the Authority to provide matching funds for a grant that has been proposed but not yet accepted. Ms. Bosworth explained the grant is called “Flakes, Flights and Forecasts: Snowpack Measurement Enhancements in the Uinta Mountain Headwaters,” and was co-sponsored by Utah Division of Water Resources and Central Utah Water Conservancy District. Ms. Bosworth explained that conventional snow monitoring misses important dynamics and improved data is needed to support decision making. Ms. Bosworth explained the proposed technology solution “Airborne Snow Observatories, Inc.” which is the only highly accurate full-coverage measurement of snow depth, SWE and albedo and can improve forecast accuracy from 50-90% to 96-99%. Ms. Bosworth explained this measurement is done by specialized flight operations that measure lidar elevation and snow density to measure snowpack, and stated this technology is currently being used in other states and the Authority would like to test it in Utah. Ms. Bosworth explained the proposal funding request and match is for \$2M total (\$1M non-federal and \$1M federal) and is requesting \$650,000 from the Authority, which has been budgeted in the Authority’s Work Plan. Mr. Shawcroft asked for a motion to approve up to \$650,000 to support the matching contribution for the Potential Snow Water Supply Forecasting Project through the U.S. Bureau of Reclamation. Mr. Humphrey motioned to approve, Mr. Larsen seconded and the matching contribution of \$650,000 by the Authority was unanimously approved by the Board.

8. **Remarks from the Board**

Mr. Humphrey mentioned the Price River System is requesting to have some river gaging put in so they can manage the river more effectively. Authority Staff noted that the Price River system likely has several high priority gaps to address as identified through the Gap Analysis study, and that gaging enhancements like these will be the topic of upcoming discussions.

9. **Other Business**

There was no other business.

10. **Next Meeting:** September 21, 2023 World Trade Center 1<sup>st</sup> Floor Conference Room, 60 East South Temple, Salt Lake City, UT 84111

11. **Adjourn**

The meeting was adjourned at 2:58pm.

**Attachment #1 – August 24, 2023 Attendee List**

**August 24, 2023  
Colorado River Authority of Utah Board Meeting  
Attendee List**

**Board Member Attendees:**

Gene Shawcroft, Chair  
Joel Ferry, Vice Chair (Virtual)  
Dan Larsen  
Jay Mark Humphrey  
Candice Hasenyager  
Zach Renstrom (Virtual)

**In Person Attendees:**

Betsy Coleman, CRAU  
Cody Stewart, CRAU  
Lily Bosworth, CRAU  
Betsy Morgan, CRAU  
Holly McCall, CRAU  
Bart Leeftang, Central Utah Water Conservancy District  
Rachel Musil, Central Utah Water Conservancy District  
Scott McGettigan, Utah Division of Water Resources  
Teresa Wilhelmsen, Utah Division of Water Rights  
Wendy Crowther, Utah Assistant Attorney General  
Jordan Nielsen, Trout Unlimited  
Burdette Barker, USU  
Craig Miller, USU  
Matt Yost, USU  
Scott Morrison, Jacobs Engineering  
Dex Winterton, MLWUA  
Bart Jensen, Jones & DeMille Engineering  
Craig Bagley, Bowen Collins & Associates  
Norma Willis, Citizen  
Mike Follum, Follum Hydrologic Solutions  
Shane Coors, Precision Water Resources Engineering

**Virtual Attendees:**

Paul Inkenbrandt, UGS  
Heather Patno, USBR  
Robyn Grim, OpenET  
Maurice Hall, OpenET  
Teresa Wilhelmsen, Division of Water Rights, State Engineer  
Tony Powell, Precision Water Resources Engineering

