SEVENTY-SIXTH ANNUALREPORT

OF THE

UPPER COLORADO RIVER COMMISSION

SALT LAKE CITY, UTAH

SEPTEMBER 30, 2024

Upper Colorado River Basin

Colorado River Storage Project (CRSP)
Units and Participating Projects

UPPER COLORADO
RIVER COMMISSION

50 South 600 East #100 • Salt Lake City, UT 84102 • 801-531-1150 • www.ucrcommission.com

June 22, 2025

President Donald J. Trump
The White House
Washington, D.C. 20500

Dear President Trump:

The Seventy-Sixth Annual Report of the Upper Colorado River Commission, as required by Article VIII(d)(13) of the Upper Colorado River Basin Compact of 1948 ("Compact"), is enclosed. The report has also been transmitted to the Governors of each state signatory to the Compact, including Colorado, New Mexico, Utah, Wyoming, and Arizona.

The budget of the Commission for Fiscal Year 2025 (July 1, 2024 – June 30, 2025) is included in this report as Appendix B.

Respectfully yours,

Charles R. Cullom
Executive Director and Secretary

Enclosure

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PREFACE

Article VIII(d)(13) of the Upper Colorado River Basin Compact requires the Upper Colorado River Commission (the Commission) to "make and transmit annually to the governors of the signatory states and the president of the United States of America, with the estimated budget, a report covering the activities of the Commission for the preceding water year."

Article VIII(1) of the By-Laws of the Commission, as updated, specifies that "the Commission shall make and transmit annually before July 1 to the Governors of the states signatory to the Upper Colorado River Basin Compact and the to the President of the United States a report covering the activities of the Commission for the water year ending the preceding September 30."

This Seventy-Sixth Annual Report of the Upper Colorado River Commission has been compiled pursuant to the above directions.

This Annual Report includes, among other things, the following:

- Membership of the Commission, its Committees, Advisors, and Staff as of the commencement of the 2025 Water Year
- Roster of meetings of the Commission
- Summary of the Activities of the Commission
- Engineering and Hydrologic Data
- Status of the Colorado River Storage Project (CRSP) Initial Units and other Participating Projects
- Appendices containing Commission financial data, such as budget, annual financial report, balance sheet, statements of revenue and expenses, and Commission resolutions.

A special thank you to the many staff of the U.S. Bureau of Reclamation (Reclamation) who have contributed significantly to the text of this Annual Report and the data presented herein.

COMMISSIONERS

Rebecca Mitchell (Vice Chair)
Commissioner for Colorado

Gene Shawcroft
Commissioner for Utah

Anne Castle (Chair)
Federal Commissioner
During the 2024 Water Year

Estevan López
Commissioner for New Mexico

Brandon Gebhart
Commissioner for Wyoming

ALTERNATE COMMISSIONERS

David Robbins	State of Colorado
John McClow	State of Colorado
Mike Hamman	State of New Mexico
Benjamin C. Bracken	State of Wyoming
Randy Bolgiano	State of Wyoming
Keith Burron	State of Wyoming
Todd Adams	State of Utah
Teresa Wilhelmsen	State of Utah
Candice Hasenyager	State of Utah

OFFICERS OF THE COMMISSION

Chair	Anne Castle
Vice Chair	Rebecca Mitchell
Secretary	Executive Director
Treasurer	Executive Director
Assistant Treasurer	Deputy Director

COMMISSION STAFF

Executive Director	Chuck Cullom
Deputy Director/Chief Engineer	Sara Larsen/Vacant
Staff Engineer	Don Ostler
Staff Engineer	Kazungu Maitaria
Senior Hydrologist	Beatrice Gordon
Office Administrator	Alyx Richards
Legal Counsel	Nathan Bracken, Smith Hartvigsen
	Peter Gessel, Smith Hartvigsen

COMMITTEES

Committees and their membership at the commencement of the 2025 Water Year are as follows (the Chair and the Secretary of the Commission are ex-officio members of all committees, Article V(4) of the Commission By-Laws):

LEGAL COMMITTEE

James S. Lochhead – Colorado
Peter Fleming – Colorado
Lee E. Miller – Colorado
Lain Leoniak – Colorado
Chris Brown – Wyoming
Bennett Raley – Colorado
Beth Van Vurst – Colorado
Amy Ostdiek – Colorado
Dominique Work – New Mexico
Wendy Crowther - Utah

ENGINEERING COMMITTEE

Steve Wolff, Chair – Colorado
Michelle Garrison – Colorado
Ali Effati – New Mexico
Dave "DK" Kanzer – Colorado
Kyle Whitaker – Colorado
Brian Macpherson – Colorado
David Jones – Utah
Jeff Cowley – Wyoming
Jason Ullmann – Colorado
Amy Haas – Utah
Bart Leeflang – Utah
Scott McGettigan – Utah
Rachel Musil – Utah
Jared Hansen – Utah
William Merkley - Utah
Charlie Ferrantelli – Wyoming

BUDGET COMMITTEE

Gene Shawcroft, Chair – Utah
Brandon Gebhart – Wyoming
Rebecca Mitchell – Colorado
Estevan López – New Mexico

MEETINGS OF THE COMMISSION

During the Water Year ending September 30, 2024, the Commission met as follows:

Regular Meeting No. 305 December 13, 2023	Las Vegas, NV
Special Meeting No. 306 March 4, 2024	Via webinar
Regular Meeting No. 307 June 26, 2024	Cheyenne, WY
Special Meeting No. 308 August 12, 2024	Via webinar

ACTIVITIES OF THE COMMISSION

GENERAL ACTIVITIES

Within the scope and limitations of Article I(a) of the Upper Colorado River Basin Compact of 1948 and under the powers conferred upon the Commission by Article Vlll(d), the principal activities of the Commission have consisted of:

1) Research and studies of an engineering and hydrologic nature of various facets of the water resources of the Colorado River Basin, especially as related to operation of the Colorado River reservoirs;
2) Collection and compilation of documents related to the utilization of waters of the Colorado River System for domestic, industrial and agricultural purposes, and hydroelectric power generation;
3) Legal analyses of associated laws, court decisions, reports and issues;
4) Participation in activities and provision of comments on proposals to ensure and allow the beneficial consumptive use of water in the Upper Basin, including for environmental, fish and wildlife and endangered species purposes, and water quality activities;
5) Cooperation with water resources agencies of the Colorado River Basin States on water and water-related issues;
6) Engagement in activities designed to aid in securing planning and investigation of storage dams, reservoirs, and water resource development projects of the Colorado River Storage Project that have been authorized for construction, and to secure authorization for the construction of additional participating projects as the essential investigations and planning are completed; and,
7) Analysis and study of federal water resource legislation.

SPECIFIC ACTIVITIES

The Commission, its staff, and key Commission advisors have been actively involved in matters pertaining to the administration of waters of the Colorado River. In addition to Commission meetings, many informal work meetings, webinars, and calls have been held under the authority of the Commission. Activities have included but are not limited to:

- Monitoring of coordinated reservoir operations and shortage

management through the continued implementation of the 2007 Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead (2007 Interim Guidelines);

- Coordination on Colorado River water management issues related to implementation of the 1944 Water Treaty with the Republic of Mexico; completion and implementation of the Upper and Lower Basin Drought Contingency Plans;
- Consideration of the augmentation of the Colorado River supply; investigation of climate change impacts to water supply; review of annual operations plans for Glen Canyon Dam;
- Discussions regarding curtailment and curtailment avoidance; monitoring of Lees Ferry streamgage flow measurements; maintenance of Upper Basin water demand and depletion schedules and related modeling and analysis;
- Continuation of Upper Basin consumptive use studies; involvement in future water supply and demand studies;
- Continued implementation of Upper Colorado River Basin Fund projects; and various legal matters.
- Implementation of Drought Contingency Plan activities with the assistance from the Infrastructure Investment and Jobs Act grant funding.
- Implementation of conservation activities through the System Conservation Pilot Program.
- Support Upper Division States in the preparation and consideration of Post-2026 Operations of Lake Powell and Lake Mead.

Oversight and Administration of the 2007 Interim Guidelines Coordinated Operations

During the seventeenth year of operations under the 2007 Interim Guidelines (2008 – 2024), the Commission and the states of Colorado, New Mexico, Utah, and Wyoming (the Upper Division States) continued their roles and responsibilities regarding the implementation of the Guidelines. Releases from Lake Powell to the Lower Colorado River Basin are based on the relative storage volumes and related water elevation-based operational tiers of Lake Powell and Lake Mead.

WY 2024 was a normal year for precipitation with the Upper Colorado River Basin receiving 100% of its median cumulative precipitation on September 30, 2024. Snowpack ranged from near average to above average across many parts of the Upper Basin. Temperatures were substantially above average with portions of the Upper Basin in Colorado and Wyoming running 2-4°F higher than average. Despite average precipitation and snowpacks, continued dry antecedent conditions coupled with higher temperatures resulted in a less runoff and lower spring streamflow efficiency. Inflow to Lake Powell was 83% of its historical average.

Reclamation forecasts future water elevations at Lakes Powell and Mead each month in its 24-Month Study model framework. Reclamation's August (2023) 24-Month Study was used to guide operations for Lake Powell and Lake Mead for releases from Lake Powell in Water Year 2024. The reservoir elevations for Lake Powell and Lake Mead based on the August (2023) 24-Month Study on January 1, 2024 were estimated to be 3568.57 feet and 1,070.57 feet, respectively. Based on these projections, the operation tier and annual release from Lake Powell was consistent the Mid-Elevation Release Tier consistent with Section 6.C.1 of the 2007 Interim Guidelines and under Section 6.C.1, the annual release would be 7.48MAF.

A review of the performance of the Reclamation's 24 Month Study accuracy shows that Lake Powell elevations are frequently over-predicted and may result in an inaccurate tier designation. Since 2007, Commission staff and Upper Division State advisers have worked with Reclamation and the National Weather Service Colorado Basin River Forecast Center (CBRFC) to improve modeling accuracy. Modeling adjustments include the incorporation of a new method for Lake Powell inflow estimation that uses a mass balance approach, more accurate estimates of bank storage (e.g., water stored in voids in the soil cover of adjacent banks of streams and lakes), and inclusion of new hydrologic flow regimes based on reduced hydrology such as that currently experienced during the current drought of record beginning in 2000. See Table 1 for predicted and actual elevations over the 2007 Interim Guidelines implementation period.

In May 2024, the released the Record of Decision (ROD) for final Supplemental Environmental Impact Statement (SEIS) for Near-term Colorado River Operations. The ROD is a supplement to the 2007 Interim Guidelines. Reclamation outlined that the supplement decision was necessary due to the potential for continued low-runoff conditions necessitating additional operational actions, including reduced releases from Glen Canyon Dam and additional reductions to the Lower Basin States. The SEIS outlined modified releases from Glen Canyon Dam to the Mid-Elevation and Lower Elevation Balancing Tiers. Reclamation will consider all tools to avoid Lake Powell declining below 3,500', including planning for releases not less than 6.0 MAF in the Water Year. The SEIS also targets Reservoir Protection Conservation of 3.0 MAF or more of additional conserved water for calendar years 2023-2026.

Table 1: Predicted Lake Powell elevations from the 24-Month Study model framework versus actual Lake Powell elevations at the end of December for each year from 2007-2024.

Year	Predicted Dec. EOM Elevation (ft)	Actual Dec. EOM Elevation (ft)	Error (ft)
2007	3,596.4	3,594.6	1.8
2008	3,625.8	3,617.9	7.9
2009	3,634.8	3,626.2	8.5

2010	3,627.5	3,626.5	1.0
2011	3,646.3	3,639.3	7.0
2012	3,614.9	3,609.8	5.1
2013	3,578.3	3,584.4	-6.1
2014	3,596.6	3,597.8	-1.1
2015	3,602.5	3,600.8	1.7
2016	3,605.8	3,600.5	5.3
2017	3,627.3	3,622.9	4.5
2018	3,586.6	3,581.9	4.7
2019	3,618.6	3,608.7	9.8
2020	3,591.6	3,582.2	9.4
2021	3,535.4	3,537.3	1.9
2022	3,521.8	3,524.8	-2.9
2023	3,573.7	3,569.0	4.7
2024	3574.1	3,572.0	2.1
		Average Error	**4.7**

The accuracy of the 24-Month Study for Water Year 2024 was 2.1 feet, which is impacted by the prediction period (5 months) and the skill in forecasting temperature, precipitation, and runoff during that time. In addition, during balancing operations, Lower Basin uses impact Lake Mead elevations, which influence Lake Powell releases and, therefore, Lake Powell storage contents. The Commission is gathering information on possible alternative approaches that would result in the optimal coordinated management of Lakes Powell and Mead and the Colorado River System.

Upper Division States' Drought Contingency Planning

On May 20, 2019, the Colorado River Basin Drought Contingency Plans (DCPs) agreements were signed and became effective for both the Upper and Lower Colorado River Basins. This followed the enactment of federal law (P.L. 116-14) authorizing the Upper and Lower Basin DCPs, which was passed by the United States Congress and signed into law by the President on April 16, 2019. The DCPs are designed to reduce risks to the Colorado River from ongoing drought exacerbated by the effects of climate change and depleted storage in Lake Powell and Lake Mead. The Commission, its staff, and its legal and technical advisors spent considerable time in Water Year 2024 implementing the terms of the Upper Basin DCP.

Upper Basin DCP Implementation

The Upper Basin DCP (consisting of the Drought Response Operations

Agreement[1] (DROA) and the Demand Management Storage Agreement[2] (DMSA)). Weather modification is also a component of the Upper Basin DCP but is subject to existing agreements and programs that predate the DCP effort. The implementation of the Upper Basin DCP reflects efforts dating back to 2014 (December 10, 2014 Resolution[3]) by the Upper Colorado River Commission and state advisors to address fluctuating water elevations and depleted storage conditions at Colorado River reservoirs, particularly Lakes Powell. The Upper Basin DCP is designed to: 1) protect critical elevations at Lake Powell and help ensure continued compliance with the 1922 Colorado River Compact and 2) establish the foundation for the storage of water in the Upper Basin as part of a potential Demand Management Program that may be developed in the future.

The DROA provides for the development of a process to coordinate releases from the upstream Initial Units of the Colorado River Storage Project (CRSP) to address risks of Lake Powell declining below the target elevation of 3,525'. The goal of these efforts is to protect Lake Powell from dropping below critical elevations, at which time the operation of the reservoir (including hydropower generation) could be compromised. A related Drought Response Operation, as part of a finalized DROA Plan, would also include a recovery of water released from an upstream Initial Unit(s) once a DROA operation is concluded. Any Drought Response Operation is expressly subject to existing environmental compliance and water and power contracts at the CRSP Initial Unit(s).

Demand Management

The DMSA permanently authorizes the storage of conserved consumptive water use volumes at Lake Powell and other CRSP Initial Units free of charge for the sole purpose of assuring continued compliance with Article III of the 1922 Colorado River Compact. Storage of these volumes is contingent upon the development of an Upper Basin Demand Management Storage Program. The DMSA sets forth minimum conditions for establishing an Upper Basin Demand Management Program through 2026. However, the Agreement itself does not establish an Upper Basin Demand Management Program; rather, it sets forth a framework for the Commission to consider such a Program.

Since the execution of the DCPs, the Upper Division States and Commission staff have been engaged in investigations to address issues and questions central to the potential feasibility of a Demand Management Program in the Upper Basin. The four Upper Division States have engaged in intrastate Demand Management Program feasibility assessments related to a basin-wide Program. Commission staff also conducted an interstate Demand Management investigation with

[1] Upper Colorado River Commission Website. Webpage: http://www.ucrcommission.com/wp-content/uploads/2019/09/Attachment-A1-Drought-Response-Operations-Agreement-Final.pdf.
[2] Upper Colorado River Commission Website. Webpage:.
[3] Upper Colorado River Commission Website. Webpage: http://www.ucrcommission.com/wp-content/uploads/2019/09/Upper_Basin_Drought_Contingency_Plan.pdf.

funding provided by Reclamation.[4] The investigation was concluded in Water Year 2022 but with the release of Key Findings and Recommendations at the Commission's 299th in Water Year 2023 (See Appendix C). Commission staff and key Commission advisors worked to prepare summaries of the principal findings from the investigations for further discussion and consideration by the Commission in Water Year 2023.

In the fall of 2024, the Upper Colorado River Commission and the U.S. Bureau of Reclamation engaged in discussions to prepare a draft Memorandum of Understanding (MOU) establishing a collaborative framework to address ongoing drought conditions in the Upper Basin. This draft MOU outlines the implementation of voluntary, compensated conservation and demonstration projects—referred to as "Qualifying Activities"—during 2025 and 2026. These activities aim to reduce consumptive use as well as other actions that potentially generate measurable water contributions to storage in reservoirs in the Upper Division States. The draft agreement outlines criteria for project selection and establishes a "Provisional Accounting" process to collaboratively quantify water contributions, with the intent of informing future programs. The draft MOU represents a key step in developing the technical, legal, and administrative tools necessary to support Upper Basin-led solutions to long-term water supply challenges.

Water Year 2022 DROA Planning and Operations

Due to above-average runoff conditions in Water Year 2023, the DROA Parties and the Commission amended the 2022 DROA Plan by terminating planned DROA releases from Flaming Gorge to Lake Powell in March and April of 2023. The DROA Parties and Commission developed a DROA Plan for Water Year 2023 (2023 DROA Plan) focused on recovering previously released DROA from the CRSP Upstream Initial Units, specifically Flaming Gorge and Blue Mesa. The 2023 DROA Plan outlined DROA operations from May of 2023 through April of 2024. The 2023 DROA Plan consisted of the DROA Framework documentation that further clarifies and provides specific information for the provisions of the DROA. The Framework serves as the core document and basis for future DROA Plans.

The 2023 DROA Plan includes attachments regarding specific recommendations for operation, release volumes, and related information developed for consideration by the Upper Division States, acting through the Commission and the Secretary. The 2023 DROA Plan was approved and adopted on April 28, 2023, at the Commission's 302nd Special Meeting. The 2023 DROA Plan included a planned recovery of 588,000 acre-feet to Flaming Gorge and 36,000 acre-feet to Blue Mesa for a total of 624,000 acre-feet to be recovered. The 2023 DROA Plan included provisions to adapt and respond to actual hydrologic conditions throughout the Plan year. At the end of Water Year 2023, Reclamation projected full recovery of the 624,000 acre-feet of previously released water to Flaming

[4] Upper Colorado River Commission Demand Management Investigation. Webpage: http://www.ucrcommission.com/ucrc-demand-management-investigation/.

Gorge and Blue Mesa by the end of February 2024.

Reclamation, the Upper Division State advisors, and Commission staff also engaged in extensive outreach and coordination with other federal agencies, Lower Basin representatives, Native American Tribes, NGOs, local governments, and other interested stakeholders on the amendment to the 2022 DROA Plan and the preparation of the 2023 DROA Plan. At the 304th (Part 2) Special Meeting, the Commission adopted a resolution regarding criteria to consider when future DROA releases are considered (See Appendix C).

Lower Basin DCP Implementation

The Lower Division States of Arizona, California, and Nevada, together with key water users in those states, developed the Lower Basin DCP (consisting of the LB Drought Contingency Plan Agreement[5] and the LB Drought Operations Exhibit[6]) designed to contribute additional water to Lake Mead at predetermined elevations and to incentivize additional voluntary conservation of water to be stored at Lake Mead.

Based on the August (2023) 24-Month Study, Lake Mead's elevation on January 1, 2024, was projected to be 1,087.00 feet. However, due to the May 2022 Additional Cooperative Actions (see below), the operational elevation was adjusted to reflect reducing releases by 480,000 acre-feet from Lake Powell. When the 480,000 acre-feet of Additional Cooperative Actions water was considered in the determination of Lower Basin operations, a "Tier Two" Shortage Condition was declared to govern the releases and diversions from Lake Mead in calendar year 2023. Delivery reduction volumes that are stipulated by the Shortage Condition include:

1. 2007 Interim Guidelines Shortage of 417,000 acre-feet from Arizona and Nevada
2. Minute 323 Delivery Reduction of 70,000 acre-feet from Mexico
3. DCP Water Savings Contributions of 200,000 acre-feet from Arizona and Nevada (192,000 and 8,000 acre-feet, respectively)
4. Binational Water Scarcity Contingency Plan Savings of 34,000 acre-feet from Mexico
5. A Reclamation DCP Contribution of 100,000 acre-feet

The above shortages (water order/delivery reductions) and DCP contributions total 821,000 acre-feet of water that must remain or be conserved in Lake Mead for the 2023 calendar year.

[5] Upper Colorado River Commission Drought Contingency Planning. Webpage: http://www.ucrcommission.com/wp-content/uploads/2019/09/Attachment-B-LB-DCP-Agreement-Final.pdf.

[6] Upper Colorado River Commission Drought Contingency Planning. Webpage: http://www.ucrcommission.com/wp-content/uploads/2019/09/Attachment-B-Exhibit-1-LB-Drought-Operations-1.pdf.

Consistent with the ’07 Guidelines, Water Year 2024 operations for Lake Powell were conducted under the Lower Elevation Balancing Tier. In March 2023, due to above normal snowpack conditions, Lake Powell releases were projected to be 9.5 MAF, the maximum allowed under the Lower Elevation Balancing Tier conditions. In March 2023, the Basin States convened with Reclamation to discuss opportunities to adjust Lake Powell releases to address the May 2022 Additional reduced releases from Lake Powell (aka “Additional Cooperative Actions 480,000 acre-feet withheld in Water Year 2022”). The Basin States and Reclmation agreed that the Lower Elevation Balancing releases from Lake Powell. Therefore, the releases from Lake Powell to Lake Mead were deemed to include the 480,000 acre-feet of the Additional Cooperative Actions within releases in Water Year 2023. In addition, the Upper Division States and Reclmation consulted with the Lower Basin States regarding the decision to cease DROA releases from Flaming Gorge and with the pivot to recovering previously released DROA water to Flaming Gorge and Blue Mesa. In summary, due to above normal inflows in Water Year 2023, the actions to protect Lake Powell and Lake Mead were no longer necessary, so that reservoir operations returned to consistency with the ’07 Guidelines and DCPs.

Reclamation operated Glen Canyon Dam releases consistent with the Lower Elevation Balancing Tier, which included adjustments to actual flows and storage conditions throughout the Water Year. Due to declines in inflows to Lake Powell relative to forecasted conditions, the total releases from Lake Powell were 8.581 MAF for Water Year 2023, almost 1.0 MAF decline from the March and April forecasted conditions. In addition, Reclamation, due to operational constraints and limitations from real-time adjustments inadvertently released approximately 44,000 acre-feet more than required under Lower Elevation Balancing Tier operations.

UCRC 5-Point Plan

On June 14th, 2022, the U.S. Bureau of Reclamation (Reclamation) requested that the Colorado River Basin States develop immediate plans to provide an additional 2-4 million acre-feet (MAF) of conserved water to the Colorado River System annually through 2026 to protect critical elevations at Lake Powell and Lake Mead. The Upper Division States (UDS) responded with a letter to Reclamation describing their “5-Point Plan” comprised of supporting actions that could be taken to protect Lake Powell and the Colorado River System more broadly. One of the primary components of the 5-Point Plan required the reauthorization, through Congressional action, of the System Conservation Pilot Program (SCPP), a water conservation program originally conducted in the Upper Basin by the UCRC from 2015 to 2018. The UCRC implemented the program for the 2023 irrigation season, and then, based on “lessons learned” and the direction of the Commissioners, the UCRC re-initiated the SCPP for the 2024 season.

In response to Reclamation Commissioner Camille Touton’s June 2022 call for proactive measures to address increasing risks and vulnerabilities in the Colorado

River system, the Upper Division States identified five areas of potential contributions to support the Colorado River System:

1) Seek amendment and reauthorization of the SCPP legislation originally enacted in 2014. The amendment sought an extension of the authorization and reporting periods to September 30, 2026, and September 30, 2027, respectively, as well as funding to support the program. Upon obtaining reauthorization, the necessary funding, and finalizing required agreements, the Upper Division States and the Commission reactivated the program for implementation in 2023.
2) Commence development of a 2023 Drought Response Operations Plan (2023 DROA Plan) in August 2022 with finalization in April 2023 consistent with the DROA Framework documentation. The 2023 DROA Plan must meet all the requirements of the Drought Response Operations Agreement and the Framework. These requirements include, but are not limited to, determining the effectiveness of any potential releases from upstream Initial Units to protect critical elevations at Glen Canyon Dam, and ensuring that the benefits provided to Glen Canyon Dam facilities and operations are preserved.
3) Consider an Upper Basin Demand Management Program as interstate and intrastate investigations are completed.
4) Implement, in cooperation with Reclamation, the Bipartisan Infrastructure Law for Upper Basin DCP funding to accelerate enhanced measurement, monitoring, and reporting infrastructure to improve water management tools across the Upper Division States.
5) Continue strict water management and administration within the available annual water supply in the Upper Division States, including implementation and expansion of intrastate water conservation programs and regulation and enforcement under the doctrine of prior appropriation.

System Conservation Pilot Program (SCPP)

On September 21st, 2023, the UCRC conducted another Special Meeting and the Commissioners took action to renew the SCPP with an updated focus on any activities that could:

- Improve local resiliency and provide further drought mitigation understanding;
- Explore innovative water conservation approaches or irrigation strategies; or
- Provide further information or understanding regarding the feasibility of a Demand Management Program in the Upper Basin.

The Commissioners also requested that SCPP in 2024 integrate key findings from the UCRC's 'Lesson's Learned' report. Updates included:

1) SCPP timing, with applications beginning in the fall,
2) Pricing, with the implementation of a firm, fixed pricing structure at the outset in partnership and with concurrence from the Reclamation;

3) CCU calculation, with greater transparency around calculation and the basis of payments;
4) Consistent and clear messaging, with communication reducing confusion, conflict, and mischaracterization; and
5) Transparency, with information about approach, purpose and review available through FAQs and review processes.

The most significant modification to the program was the implementation of firm-fixed pricing by state and sector of use. UCRC staff worked with counterparts in Reclamation to review commodity pricing, yield, and other information provided by the UDS to develop the following pricing structure for compensation in the renewed program.

The application process for SCPP during the 2024 season launched on October 27th, 2023 via a webinar available on the UCRC's website with an application deadline of December 18th, 2023. This allowed time for potential applicants to engage with WWG in pre-application meetings, over 200 of which were conducted. By the application deadline, the UCRC received 122 applications for SCPP during the 2024 season.

UDS staff, including water resource and water rights staff, and in many cases WWG reached out to each project proponent to gather any needed information, including iteration on the location of project areas generating water conservation savings, the estimated historical consumptive use (HCU) to establish a water use baseline, and the estimated Conserved Consumptive Use (CCU) generated from program participation. This was a labor-intensive effort, requiring back-and-forth rounds of updates for the applicants, WWG, UCRC, and UDS staff members.

The review process, which began on February 5, 2024, resulted in the selection of 114 projects. The UCRC completed contracts for 110 projects, accruing an estimated 63,633 ac-ft in CCU, at an average cost of $467.11/ac-ft, with a total SCPP compensation cost of $28,609,543.00.

WWG and UDS staff members coordinated with SCPP participants on the verification procedures for each project over the summer of 2024. These consisted of either monthly on-site visits or the use of a remote-sensing approach using Normalized Differential Vegetation Index (NDVI) data to evaluate vegetation vigor (i.e., whether fallowing on the site was occurring). Each site visit or remote-sensing analysis was compiled into a site report and delivered to WWG for collation into final verification plan reports.

At the end of the 2024 SCPP project periods, WWG compiled batches of verification reports for UCRC, the UDS, and for Reclamation's final review of the project activities. As each review batch was concluded, the UCRC then disbursed (and will continue to disburse until all projects are finalized) second payment checks to the SCPP participants and closed out the projects.

Infrastructure Investment and Jobs Act (IIJA)
The IIJA explicitly provides $50M to the Upper Division States to implement the Upper Basin DCPs. One of the primary components of the UCRC's 5-Point Plan is to utilize funding made available by the Infrastructure Investment and Jobs Act (IIJA) (known originally as the Bipartisan Infrastructure Law or BIL) to implement certain activities related to and contemplated by the 2019 Upper Basin DCP.

The Upper Basin DCP provides for the implementation of Drought Response Operations under the DROA and the review and analysis of the feasibility of a Demand Management Program under the DMSA. Both components of the DCP require a more refined understanding of the water supply and water use dynamics, as well as an improved understanding of water flow tracking and accounting in critical reaches.

UCRC staff engaged with Reclamation staff to develop the UCRC-Reclamation agreement that would enable the transfer of funds over the spring and summer of 2023. This included refinements to the Year 1 IIJA Spend Plan and working through details of the award terms and conditions. UCRC has also engaged Jacobs Engineering to assist with project management and project implementation.

The UCRC received a notice of award from Reclamation for Year 1 BIL funds on August 3rd, 2023 with an amendment to these funds on April 26, 2024.

Priorities for Year 1 IIJA efforts included: installing EC Towers, reactivating/installing streamgages, Airborne Snow Observatory (ASO) flight support, field water balance studies (FWBS) to understand implications to partial and full fallowing conditions and recovery, and implementing Special Studies related to exploring outstanding Demand Management feasibility questions. UCRC staff members met with UDS staff continually to explore the next steps outlined in the IIJA Implementation Plan.

The UCRC in collaboration with UDS staff executed several contracts to support each of these Year 1 Priorities, which are outlined below and summarized in Figure 1:

- UCRC and Parallel 41 (the contractor to complete EC Tower installation and related activities for three (CO, NM, and UT) of the four UDS on December 27th, 2023;
- UCRC and the Colorado Water Conservation Board (CWCB) for a subaward to fund the operation and maintenance of an EC Tower near Kremmling, Colorado on amended on June 28th, 2024;
- UCRC and the Utah Geological Survey to expand the Utah Flux Network by building, maintaining, and operating a standard eddy covariance station near Green River, Utah, and to study the use and efficacy of a smaller eddy covariance station on July 3rd, 2024;
- UCRC and the U.S. Geological Survey (USGS) Wyoming Science

- Center for the re-activation and installation of 10 streamgages around the Upper Green River Basin on November 11th, 2023;
- UCRC and the U.S. Geological Survey (USGS) Utah Science Center for the re-activation and installation of 12 streamgages on April 5th, 2024;
- UCRC and the U.S. Geological Survey (USGS) Colorado Science Center for the re-activation and maintenance of 2 streamgages on September 26th, 2024;
- UCRC and the CWCB for a subaward to fund the installation and improvement of 10 stream gages in Colorado on September 25th, 2024;
- UCRC and Scripps Institute of Oceanography (University of California Board of Regents) for a preliminary gap analysis and scoping study of soil moisture instrumentation in the UCRB on December 12th, 2023;
- UCRC and Trout Unlimited on several (FWBS) in Wyoming and Colorado on December 21st, 2023;
- UCRC and the Colorado Water Conservation Board (CWCB) for a subaward to contract the Airborne Snow Observatory in Colorado for the addition of two significant watersheds in the headwaters of the Yampa and mainstem Colorado River on March 26th, 2024
- UCRC and the Nature Conservancy (TNC) of Wyoming for a special FWBS focused on the effect of different irrigation techniques on April 4th, 2024;
- UCRC and the Little Snake River Water Conservancy District for a special study focused on exploring the impacts of forgoing free river diversions related to Demand Management Feasibility on May 13th, 2024 with a contract to the University of Wyoming to support scientific investigations and field instrumentation executed on June 24th, 2024.

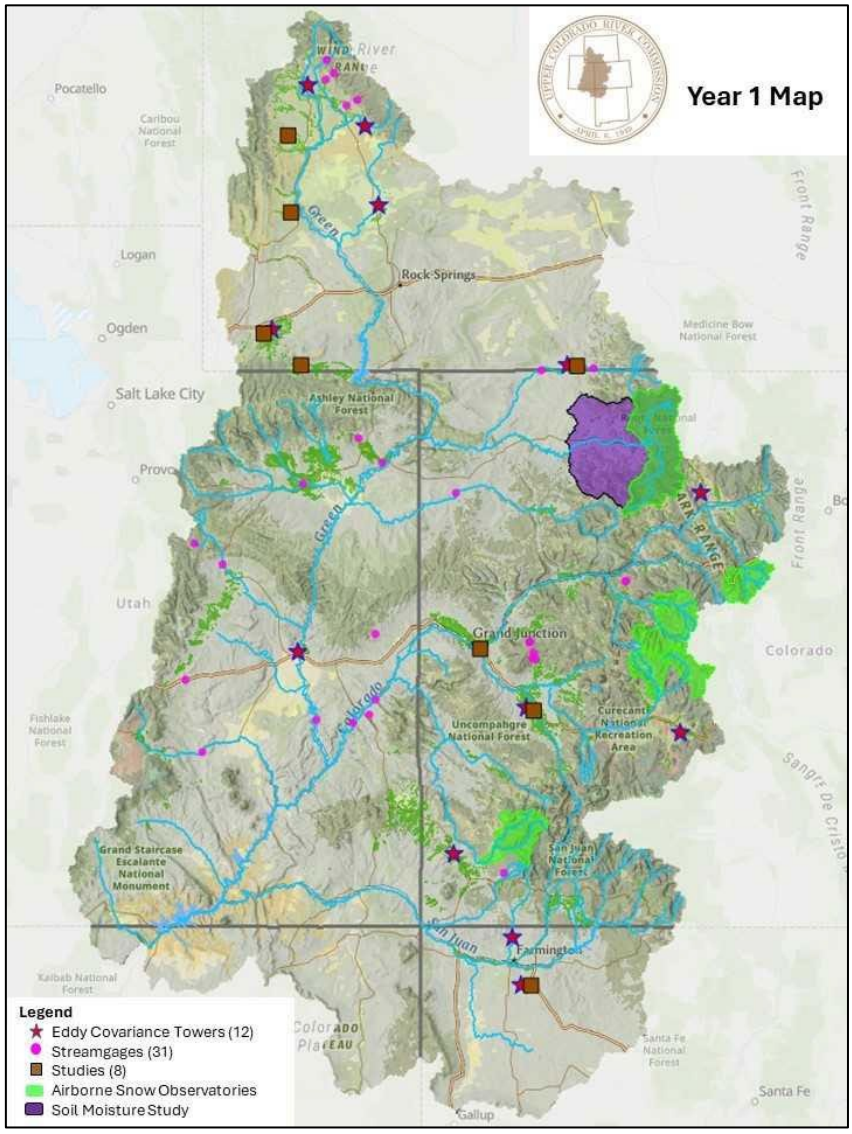


Figure 1: Overview of key accomplishments from IIJA Year 1.

Throughout Water Year 2024, UCRC staff members met with UDS staff and Reclamation staff to explore the next steps outlined in the IIJA Implementation Plan during several meetings. This included the prioritization of IIJA efforts in Year 2. Based on this process, priorities in addition to those outlined in Year 1 were determined to be:

- Diversion structure and telemetry updates/installation;
- Weather station installation;
- Incidental Use estimation and measurement;
- Reservoir evaporation estimation and measurement;

- Snow and runoff forecasting skill improvement;
- Data integration to support a coordinated data platform to house and visualize data products resulting from BIL instrumentation efforts.

Through the end of Water Year 2024, the UDS, UCRC staff, and Jacobs were engaged in the development of a comprehensive needs assessment report to prioritize diversion structure and telemetery needs across the four UDS. UCRC and UDS staff also developed four working groups to focus on coordinating efforts related to:

- Snow and runoff forecasting;
- Reservoir evaporation;
- Incidental use;
- Data integration.

At the point of reporting, work groups were either actively integrating key members of the Reclamation team or in the process of doing so.

Tribes-States Dialogue (TSD)

Figure 2: Upper Basin Tribal Leaders, UCRC Commissioners, Staff, State Advisors, and Reclamation Staff at the Tribes States Dialogue **MOU signing at the Lodge at Chama in Chama, New Mexico in April 2024**.

The Upper Basin Tribes – States Dialogue (TSD), initiated with a historic meeting hosted by the Southern Ute Indian Tribe in August 2022, continued in Water Year 2023. The TSD is a first-of-its-kind effort between the Upper Basin Tribes and States to engage with and share perspectives on the management of the Colorado River. The Commissioners began the effort with the intent of working directly with the Tribes in the Upper Basin, including the Jicarilla Apache Nation, Navajo Nation, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, Ute Tribe, and the Shivwits

Band of Paiutes. The TSD developed a joint statement of common interests and commitments, which was shared with Reclamation at a meeting hosted by the Jicarilla Apache Tribe on October 24-25th, 2022, in Albuquerque, New Mexico. In addition, in March of 2023, the Navajo Nation hosted a meeting of the TSD, including Reclamation Commissioner Camille Touton, at the Nation's Antelope Point facility on Lake Powell. The meeting included a presentation from Navajo Tribal President Buu Nygren, as well as tours of Glen Canyon Dam and Lake Powell. Finally, in July of 2023, the Ute Tribe hosted the TSD in Fort Duchesne, Utah.

In April of 2024, the Upper Colorado River Commission and the six Upper Basin Tribes entered into a Memorandum of Understanding (MOU) to strengthen collaboration on Colorado River matters. This agreement establishes a framework for regular communication—through meetings held approximately every two months—and provides a structure for cooperative dialogue on water rights, river management, and related issues. The MOU explicitly affirms the sovereign rights and responsibilities of all parties and is designed to be inclusive, allowing for additional Tribes to join over time. The framework will be revisited annually to ensure its continued relevance and effectiveness in supporting joint understanding and coordination on Colorado River issues.

On September 22, 2024, the Upper Division States acting through the UCRC, via letter to Reclamation, expressed support for the inclusion and consideration of the so-called 4 "U"s as expressed by the Upper Division Tribes in the post-2026 operations process. The Tribes are seeking ways to derive benefits from their settled water rights. The Tribes outlined four "U"s at the Tribes-States Dialogue meeting in April 2024 as follows:

- Unused water rights
- Undeveloped water rights
- Uncompensated water rights
- Unquantified water rights

The UCRC expressed support for discussions with Tribes, States and Reclamation regarding the appropriate approach to addressing these long-standing issues.

Negotiations with Mexico Regarding Low Elevation Reservoir Conditions and Augmentation of Supply

In 2019, the Commission and the Upper Division States were actively involved in discussions with the Department of Interior, the International Boundary and Water Commission (IBWC) and their Mexican counterparts, and representatives of the Lower Division States on additional measures for managing and sharing future shortages, as well as to meet future demands for water consistent with the terms of the 1944 United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944 Water Treaty), and the Upper Division States' obligations under the 1922 Colorado River Compact and 1948 Upper Colorado River Basin Compact. This binational coordination occurs

through the implementation of Minute 323, an implementing agreement to the 1944 Treaty. Minute 323, signed in 2017, extends many provisions of two of its predecessor minutes, Minutes 318 and 319.

In particular, Minute 323 replaces or extends measures agreed to in Minute 319, which include conditional storage of Mexican water in the United States (Mexico's Water Reserve) and reductions based upon low elevations at Lake Mead. Minute 323 also adds measures for Binational Water Scarcity Contingency Planning conditioned upon the United States adopting similar actions in the form of a Lower Basin drought contingency plan. In July 2019, the Principal Engineers of the Mexican and U.S. Sections of the IBWC issued a Joint Report (Joint Report) with the implementing details of the Binational Water Scarcity Contingency Plan contained in Minute 323. In August of 2019, Reclamation determined that Mexico's Binational Water Scarcity Contingency Plan would commence in 2020 due to projected Lake Mead elevations on January 1, 2020. In addition to the Binational Water Scarcity Contingency Plan, Minute 323 also includes provisions regarding:

- Distribution of surplus flows
- Distribution of flows under low elevation reservoir conditions (shortage)
- Extension of cooperative measures to address emergencies (e.g., storage during earthquake-damaged infrastructure in Mexico)
- Salinity
- Flow variability in Mexico's supply
- Environmental measures
- Investment in Projects; and,
- Measures pertaining to the All-American Canal

During 2019, various workgroups formed under Minute 323 met to undertake workgroup-designated tasks under the Minute. Commission staff participate in both the Minute 323 Environmental and Hydrology Work Groups. Moreover, Commission staff participate in the Minute 323 Oversight Group, a binational steering group that meets biannually to track the implementation of Minute 323 and to provide direction and oversight of the workgroups.

Based on the August (2023) 24-Month Study, Lake Mead's elevation on January 1, 2023, was projected to be 1,087.00 feet. The projected Lake Mead elevation triggered reductions or contributions of 41,000 Acre-feet of Binational Water Scarcity Contingency Plan reductions to Mexico per Minute 323 for calendar year 2024.

In addition, to address the critical decline in Lake Mead impacting both Mexico and the United States, a binational emergency response group (BERG) was created, including representatives from CILA/IBWC, Reclamation, Mexico water agencies, and Lower and Upper Basin representatives including Commissioner Lopez representing the Upper Division States. The BERG was charged with

developing cooperative measures between Mexico and the U.S., potentially including additional actions from Mexico to contribute to protecting the Colorado River system.

Lees Ferry Streamgage and Releases from Glen Canyon Dam

The 1922 Colorado River Compact delineates the Upper and Lower Basins at Lee Ferry, Arizona, approximately sixteen miles below Glen Canyon Dam, the impoundment for Lake Powell. The nearby Lees Ferry streamgage is the closest streamflow measurement point to Lee Ferry and is, therefore, of great importance to the Commission. The reach between Glen Canyon Dam and the Lees Ferry streamgage is subject to gains in flow. Gains over the past nineteen years are summarized in Table 2.

Table 2: Estimated gain in reach between Glen Canyon Dam and the Lees Ferry streamgage by Water Year.

Water Year	Acre-feet	Water Year	Acre-feet
2005	129,186	2016	117,065
2006	263,871	2017	152,291
2007	166,184	2018	157,786
2008	186,053	2019	240,108
2009	135,755	2020	194,852
2010	164,004	2021	49,191
2011	212,729	2022	66,738
2012	61,168	2023	149,567
2013	31,715	2024	69,912
2014	88,016	**Sum**	**2,772,095**
2015	135,905		

During Water Year 2024, the reach in question had a gain of 69,912 acre-feet. Over the same timeframe, the cumulative gain at Lees Ferry, when compared to reported Glen Canyon Dam release volumes, was approximately 2,772,095 acre-feet. The Commission continues to investigate the significance of these gains when considering current and future dam operations.

Upper Colorado River Basin Consumptive Use Study

The Upper Colorado River Commission, Upper Division States, and Reclamation finalized a three-phase study to improve the accuracy, consistency, and cost-effectiveness of agricultural consumptive use estimates in the Upper Colorado River Basin. The study assessed traditional methods, such as crop coefficients, and evaluated remote sensing technologies, ultimately recommending the eeMETRIC model as a regionally consistent approach for estimating irrigation consumptive use. In 2022, both the UCRC and Reclamation adopted eeMETRIC for ongoing

implementation, including integration into Reclamation's Consumptive Uses and Losses (CU&L) reporting.

In Water Year 2024, the Commission continued to employ eeMETRIC when estimating consumptive use for the irrigated agriculture sector, a significant portion of the Commission's analysis of annual natural flows. The Commission and Upper Division State advisors continued to review the new data and recent years of analysis to understand the impacts of utilizing the new method relative to prior years of data.

The Upper Basin Consumptive Use Workgroup continues to evaluate additional methods and data sources for the remaining consumptive use sectors, which include transmountain diversions (TMDs), major reservoir evaporation, thermal electric power, municipal and industrial, minor reservoir evaporation, stock pond evaporation, livestock consumption, and mineral/mining extraction. The completion of the work to develop these sectors will continue into Water Year 2024 and is intended to improve the accuracy of consumptive use estimates in the Upper Basin and contribute to the replacement of the Inflow-Outflow Method specified in Article VI of the 1948 Upper Colorado River Basin Compact.

Of note, during Water Year 2023, as part of the effort to update consumptive use methods, Commission staff, Upper Division State, and Reclamation advisors carefully reviewed their respective lists of TMD diverters and the data sources supporting the annual TMD reporting provided in Appendix D. This group also reviewed every ungagged diversion (all very small diverters) associated with historic TMD reporting to determine if they were still in existence, and documented the most up-to-date source for such data to further quantify diversion for this smaller category of TMDs.

In Water Year 2024, Commission staff and Reclamation worked collaboratively to consolidate and document these evolving approaches in a draft consumptive use methods manual to support future consistency and transparency in estimation, reporting, and shared understanding across the Upper Basin. Future adoption of the manual is expected to provide a robust technical foundation to eventually replace the Inflow-Outflow method for estimated consumptive use in the Upper Basin.

Preparation of Post-2026 Operations of Lake Powell and Lake Mead

The current Colorado River operational guidelines for Lake Powell and Lake Mead expire at the end of 2025 with the implementation of the 2026 Annual Operating Plan. Reclamation will prepare and implement new operational guidelines beginning on October 1, 2026, the start of Water Year 2027. Reclamation formally requested submission of alternatives in March 2024. The alternatives are part of the public process to inform Reclamation's consideration in their process to prepare a preferred alternative for a formal Record of

Decision in the summer of 2026.

In October 2023, the Basin States began discussions to explore the potential to develop a Basin States consensus alternative for consideration by Reclamation. On March 06, 2024, the Upper Division States submitted an alternative to Reclamation. The Lower Basin States submitted an alternative for consideration by Reclamation. Further, a collaboration on conservation focused organizations (so called Colorado River Conservation Cooperative) provided an outline of an alternative. Additionally, the Gila River Indian Community, with support and engagement from Reclamation provided a framework for Reclamation to consider in the National Environmental Policy Act (NEPA) process. Finally, Reclamation convened multiple meetings among States, Tribes and Reclamation to provide updates on Reclamation's NEPA process.

The Upper Division States alternative outlines an approach to the operation of Lake Powell and Lake Mead that reflects a shift away from demand-based operations and attempts to adjust operations to reflect hydrology and the available supply in Lake Powell and Lake Mead. The alternative is based on observations and lessons learned from the application of the current '07 Guidelines, implementation of conservation programs in the Upper Division States and the Upper Division States Drought Contingency Plans. The alternative has four foundational elements:

- Lake Powell releases based on the storage volume available in Lake Powell (aka Powell release curve)
- Lake Mead releases reflecting the combined storage in Lake Powell and Lake Mead (aka Lower Basin reduction curve)
- Creation and management accounts in Lake Powell and Lake Mead to facilitate and encourage conservation and augmentation:
    - Lake Powell accounts to protect Upper Division States resources
        - Conservation/storage account
        - Protection account
    - Lake Mead accounts to support Lower Basin conservation and augmentation
- Conversion of Upper Division account volumes in cooperation with the application of the Lower Basin reduction curve to sustain operations at Lake Powell and Lake Mead during lower storage conditions. The conversion of Upper Division accounts also reflects the reality of annual hydrologic shortages across the Upper Division States.

The discussion and evaluation of alternatives among the Basin States and Reclamation continued throughout Water Year 2024.

Commission Staff

In March of 2024, Deputy Director/Chief Engineer Sara Larsen left her position with the Commission.

Figure 3: Commission Staff (left to right): Kaz Maitaria, Peter Gessel (S&H), Chuck Cullom, Rachel Musil, Alyx Richards, Bea Gordon, Nathan Bracken (S&H). Don Ostler not pictured.

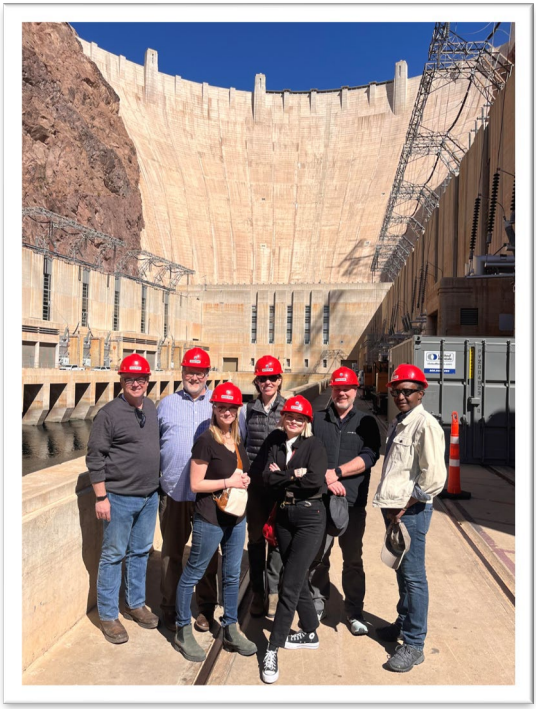


Figure 4: Commission staff (left to right): Chuck Cullom, Peter Gessel (S&H), Rachel Musil, Bea Gordon, Alyx Richards, Nathan Bracken (S&H), Kaz Maitaria. Don Ostler not pictured.

Figure 5: Looking at Lake Mead from Hoover Dam during a staff trip.

Streamflow and Hydrology Summary

The Upper Colorado River Basin experienced average precipitation conditions during Water Year 2024 with cumulative precipitation on September 30, 2024, reaching 100% of the median. Snowpack was also near to above average with basin-wise snow water equivalent (SWE) measuring at 114% of median on April 3, 2024. April 1 SWE was 103%, 108%, and 108% of median for the Green River, Upper Colorado River Headwaters, and San Juan River Basins, respectively. In spite of average to above average precipitation and snowpack conditions, unregulated streamflow was below average at 83% of the 30-year average calculated by the CBRFC from 1991-2020. This continues a trend towards declining streamflow efficiency in the Upper Basin.

Streamflow in the Colorado River is reported as both historical flow at Lee Ferry and natural flow.

- Historical flow is based on the U.S. Geological Survey (USGS) streamflow measurements at the Lees Ferry and Paria River streamgages and was 7,568,692 acre-feet in Water Year 2024. The progressive 10-year total flow at Lee Ferry was 86,029,234 acre-feet (for more detail, see Table 8).
- Natural flow of the Colorado River refers to the amount of water that would have flowed past Lee Ferry without the influence of man. It was estimated to be 12 maf in Water Year 2024. This is less than the average natural flow of 14.5 maf for the 1896-2024 period (for more detail, see Table 7). It is also less than the average natural flow of 12.4 maf since 2000, the period of the current drought.

Table 3: Unregulated inflow to Lake Powell by Water Year, presented as a percent of the corresponding Water Year's 30-Year average.

Water Year	Percent of Rolling 30-Year Average	Water Year	Percent of Rolling 30-Year Average
2000	62%	2013	47%
2001	59%	2014	96%
2002	25%	2015	94%
2003	51%	2016	89%
2004	49%	2017	110%
2005	**105%**	2018	43%
2006	73%	**2019**	**120%**
2007	68%	2020	54%
2008	**102%**	2021	32%
2009	88%	2022	63%
2010	73%	2023	140%

2011	**139%**	2024	83%
2012	45%		

This information will be evaluated and considered during the next determination of storage volumes needed in Lake Powell to ensure that the Upper Basin is able to maintain adequate storage for a similar drought in the future.

Summary of Reservoir Elevations and Storage

As of September 30, 2024, total system storage (Upper and Lower Basins) was 25,243,500 acre-feet. Total system storage was at 43% at both the beginning and end of Water Year 2024 (for more detail, see Figure 6).

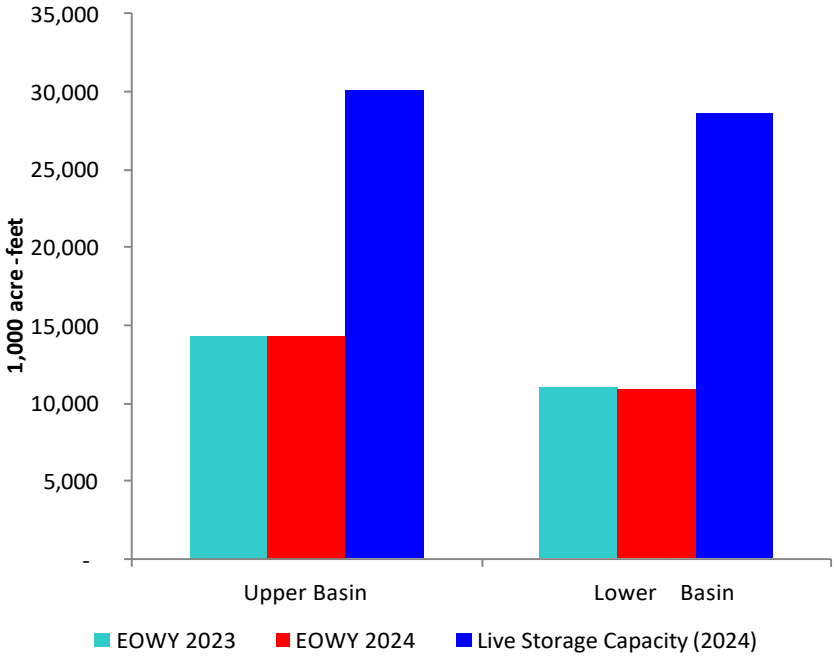


Figure 6: Total End of Water Year (EOWY) storage in 2023 and 2024 and live storage capacity (2024) for the Colorado River System.

In the Upper Basin, there was a combined increase in storage of 69,000 acre-feet (for more detail, see Table 4) in Water Year 2024. The change in individual reservoir storage, excluding bank storage and evaporation, at select Upper Basin reservoirs was as follows:

- Fontenelle decreased 47,800 acre-feet
- Flaming Gorge decreased 102,700 acre-feet
- Taylor Park decreased 2,800 acre-feet

- Blue Mesa decreased 70,900 acre-feet
- Morrow Point increased 2,500 acre-feet
- Crystal decreased 2,900 acre-feet
- Navajo decreased 57,700 acre-feet
- Lake Powell increased 351,300 acre-feet

The above changes are displayed in Figure 7 below and summarized in Table 4. Lake Powell ended the water year at 39.2% of capacity, with 9.14 maf of storage at elevation of 3,578.08 feet. The release volume from Lake Powell during Water Year 2024 was 7.42 maf. A more detailed description of Lake Powell conditions can be found in the Summary of Reservoir Operations section of this report on page 106.

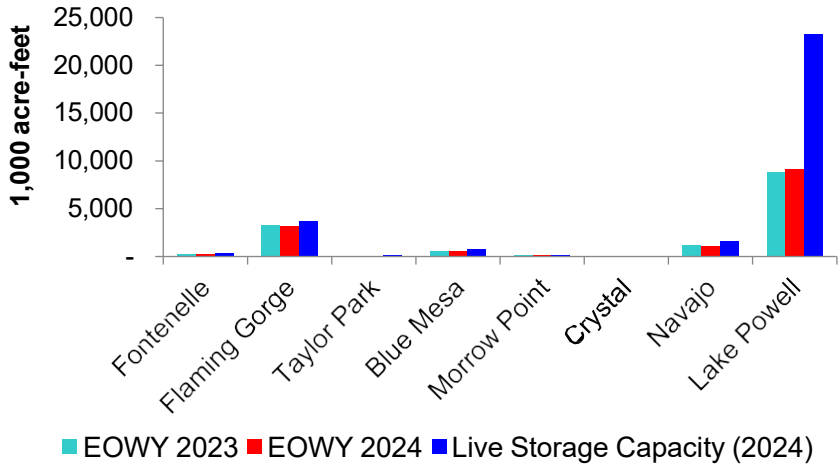


Figure 7: End of Water Year (EOWY) storage in 2023 and 2024 and live storage capacity (2024) for principal reservoirs of the Upper Basin.

Table 4: Storage and percent live capacity in principal reservoirs of the Upper Basin at the end of Water Year 2023 and 2024 as well as estimated change in storage at the end of Water Year 2024.

Reservoir	September 30, 2023 (acre-feet)	Percent Live Capacity	September 30, 2024 (acre-feet)	Percent Live Capacity	Change in Storage (acre-feet)
Fontenelle	285,300	85.4%	237,500	71.1%	(47,800)
Flaming Gorge	3,256,200	88.7%	3,153,500	85.9%	(102,700)
Taylor Park	76,800	72.3%	74,000	69.7%	(2,800)
Blue Mesa	629,500	76.0%	558,600	67.5%	(70,900)
Morrow Point	109,100	93.2%	111,600	95.4%	2,500

Crystal	16,700	95.2%	13,800	78.7%	(2,900)
Navajo	1,146,800	69.6%	1,089,100	66.1%	(57,700)
Lake Powell	8,790,400	37.7%	9,141,700	39.2%	351,300
Total	**14,310,800**	**47.6%**	**14,379,800**	**47.9%**	**69,000**

During Water Year 2024, the combined reservoir storage in the Lower Basin decreased by 177,400 acre-feet. Reservoir storage in Lake Mead decreased from 8.87 maf to 8.71 maf, which is 33.3% of Lake Mead's total storage capacity per Figure 8 below.

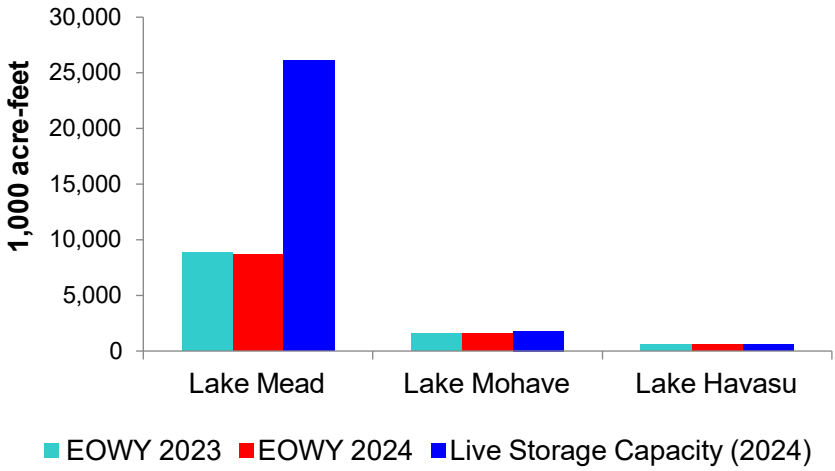


Figure 8: End of Water Year (EOWY) storage in 2023 and 2024 and live storage capacity (2024) for principal reservoirs of the Lower Basin.

Table 5: Storage and percent live capacity in principal reservoirs of the Lowe Basin at the end of Water Year 2023 and 2024 as well as estimated change in storage at the end of Water Year 2024.

Reservoir	September 30, 2023 (acre-feet)	Percent Live Capacity	September 30, 2024 (acre-feet)	Percent Live Capacity	Change in Storage (acre-feet)
Lake Mead	8,871,000	34.0%	8,707,000	33.3%	(164,000)
Lake Mohave	1,587,700	87.7%	1,591,500	87.9%	3,800
Lake Havasu	582,400	94.0%	565,200	94.0%	(17,200)
Total	**11,041,100**	**38.7%**	**10,863,700**	**38.1%**	**(177,400)**

Table 6 on page 37 shows the statistical properties for the principal reservoirs of the Upper Colorado River Basin. Table 7 on page 38 shows the same properties

for the Lower Colorado River Basin reservoirs, exclusive of Lower Colorado River Basin tributary storage reservoirs. More detailed graphs of the elevations and storage amounts related to the implementation of the LROC and the 2007 Interim Guidelines for Lake Powell, Flaming Gorge, Fontenelle, Navajo, and Blue Mesa Reservoirs in the Upper Colorado River Basin and Lake Mead in the Lower Basin are shown in Figures 9-14 on pages 39 through 44 for Water Year 2024.

Table 6: Statistical properties of the principal reservoirs of the Upper Basin. Elevation is listed in feet and capacity is listed in 1,000 acre-feet or kaf, where appropriate.

	Fontenelle		Flaming Gorge		Taylor Park		Blue Mesa		Morrow Point		Crystal		Navajo		Lake Powell	
	Elev (ft).	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)
River Elev. (ft) at the Dam (Ave. Tailwater)	-	-	5,603	-	9,174	-	7,160	-	6,775	-	6,534	-	5,720	-	3,138	-
Dead Storage	6,408	0.56	5,740	40	-	-	7,358	111	6,808	-	6,670	8	5,775	13	3,370	1,893
Inactive Storage (Min. Power Pool)	-	-	5,871	273	-	-	7,393	192	7,100	75	6,700	12	5,990	673	3,490	5,890
Rated Head	6,491	234	5,946	1,102	-	-	7,438	361	7,108	80	6,740	20	-	-	3,570	11,000
Maximum Storage	6,506	345	6,040	3,789	9,330	106	7,519	941	7,160	117	6,755	25	6,085	1,709	3,700	26,215

Table 7: Statistical properties of the principal reservoirs of the Lower Basin. Elevation is listed in feet and capacity is listed in 1,000 acre-feet or kaf, where appropriate.

	Lake Mead		Lake Mohave		Lake Havasu	
	Elev (ft).	Capacity (kaf)	Elev (ft)	Capacity (kaf)	Elev (ft)	Capacity (kaf)
River Elev. (ft) at the Dam (Ave. Tailwater)	646	(2,378)	506	646	(2,378)	506
Dead Storage	895	-	533.4	895	-	533.4
Inactive Storage (Min. Power Pool)	950	7,471	570	950	7,471	570
Rated Head	1,122.8	13,633		1,122.8	13,633	
Maximum Storage	1,221.4	26,159	647	1,221.4	26,159	647

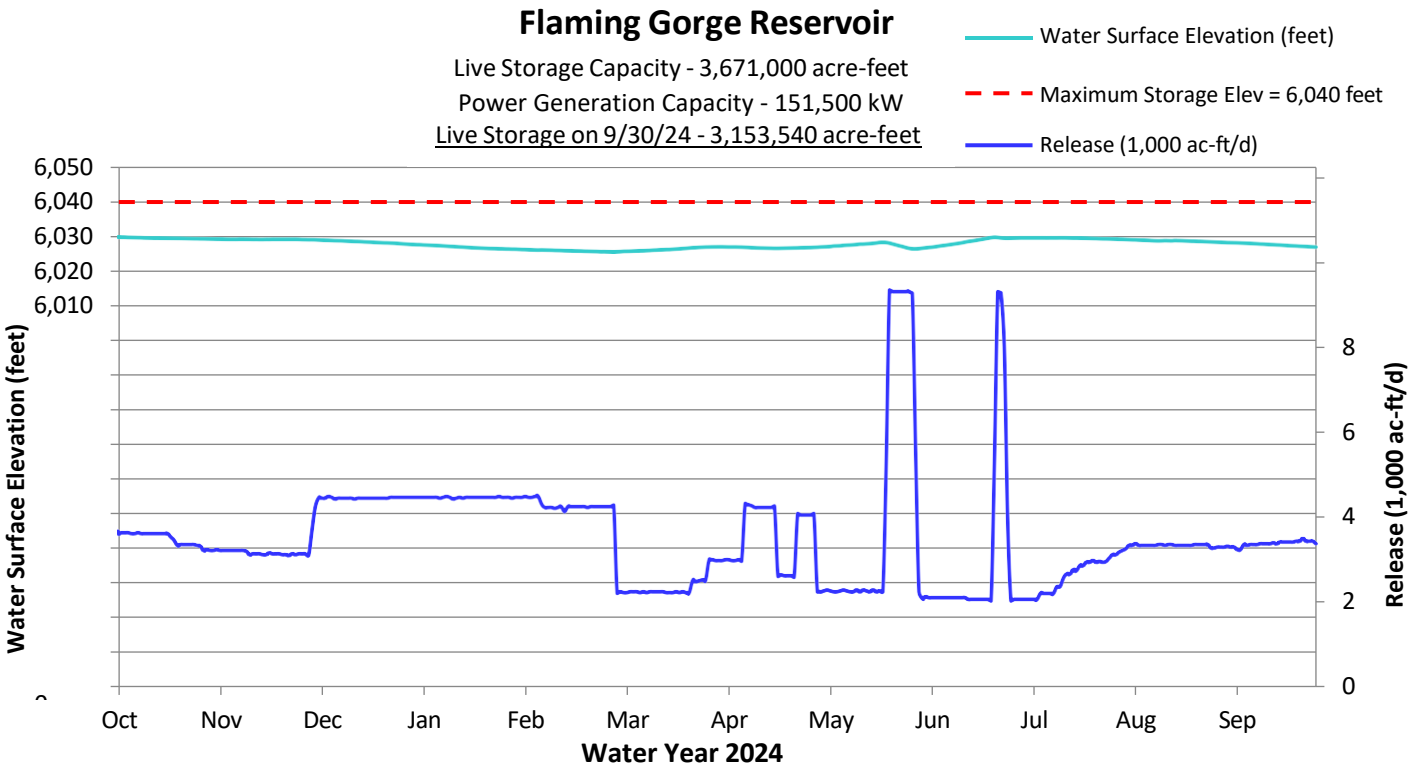


Figure 9: Water surface elevation, maximum storage elevation, and reservoir releases from Flaming Gorge Reservoir in Water Year 2024.

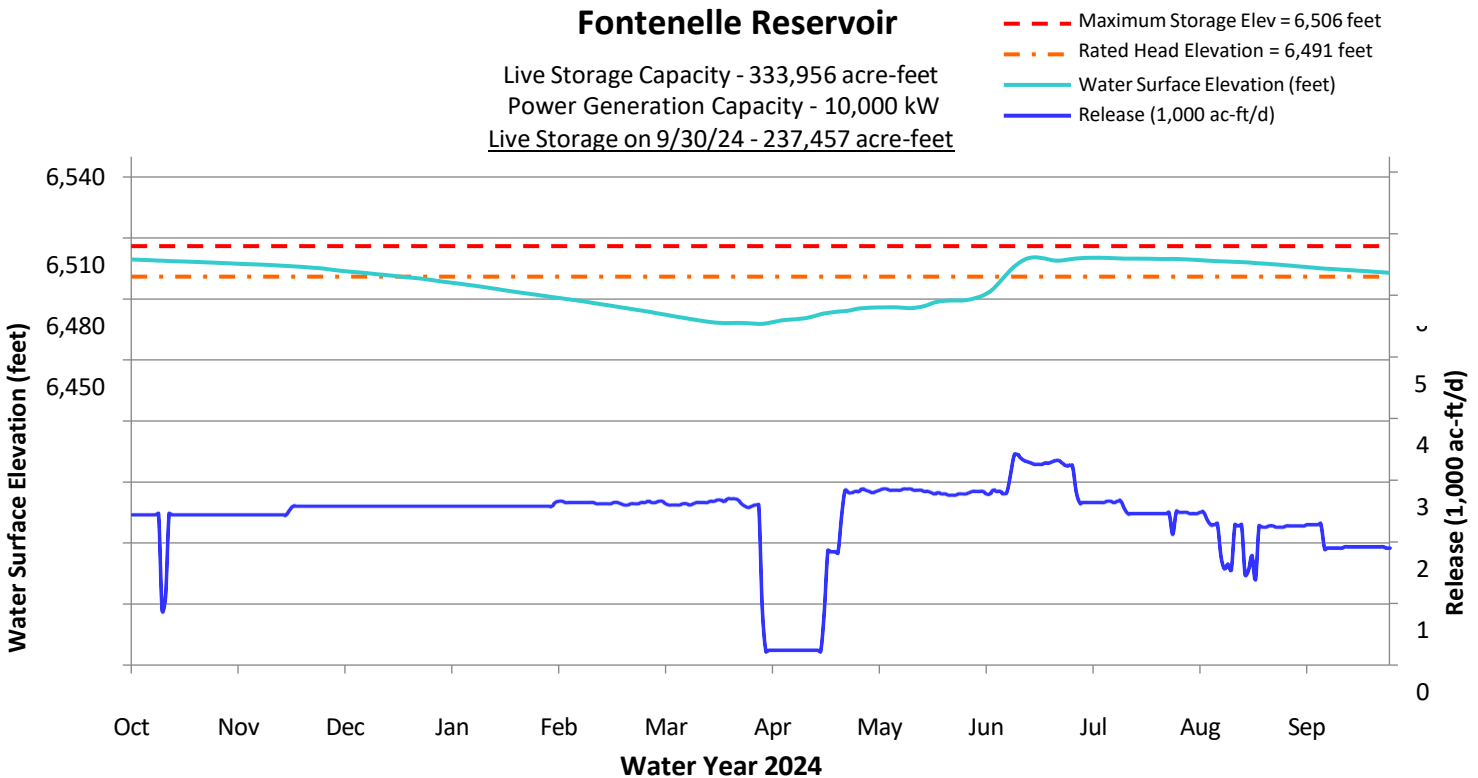


Figure 10: Water surface elevation, maximum storage elevation, and reservoir releases from Fontenelle Reservoir in Water Year 2024.

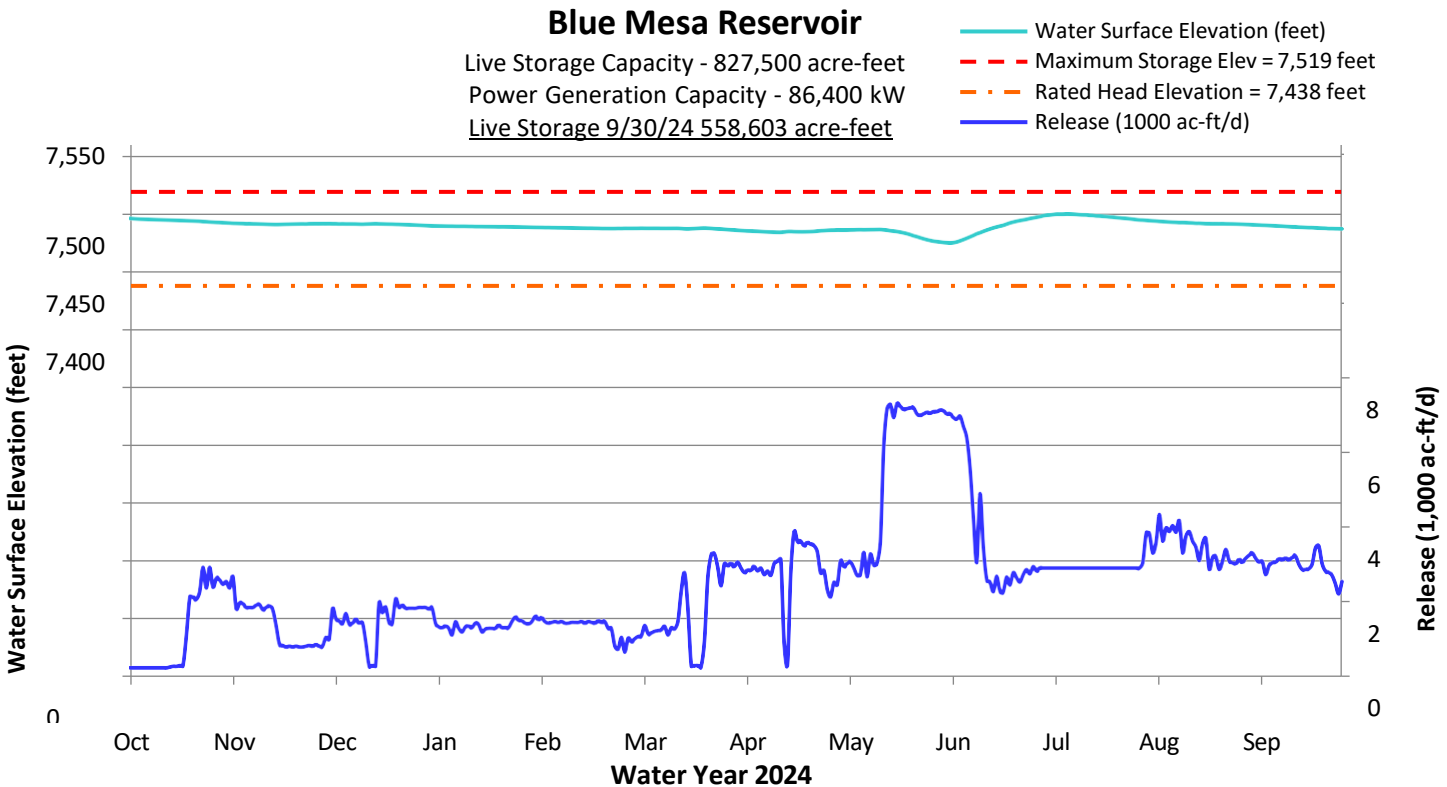


Figure 11: Water surface elevation, maximum storage elevation, and reservoir releases from Blue Mesa Reservoir in Water Year 2024.

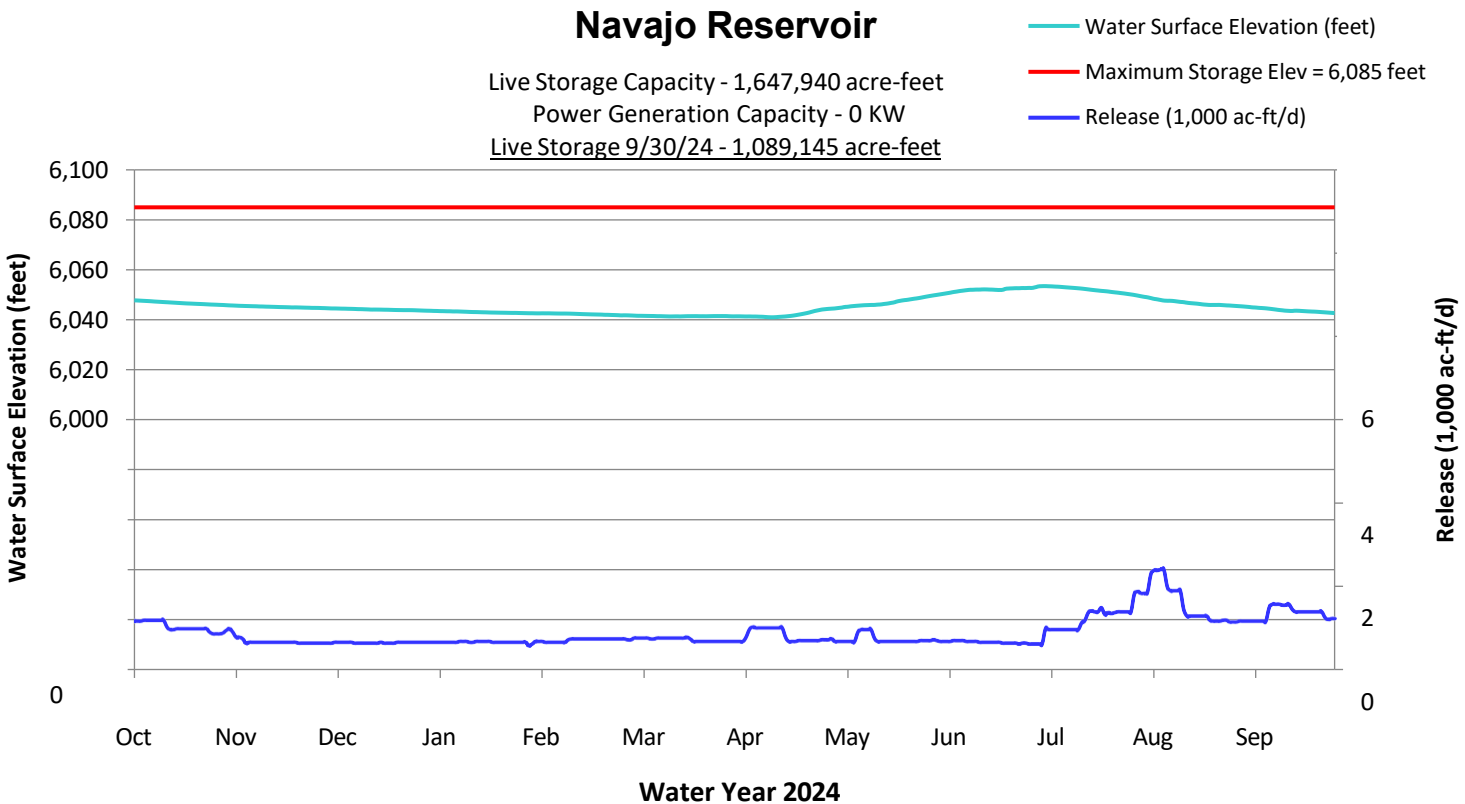


Figure 12: Water surface elevation, maximum storage elevation, and reservoir releases from Navajo Reservoir in Water Year 2024.

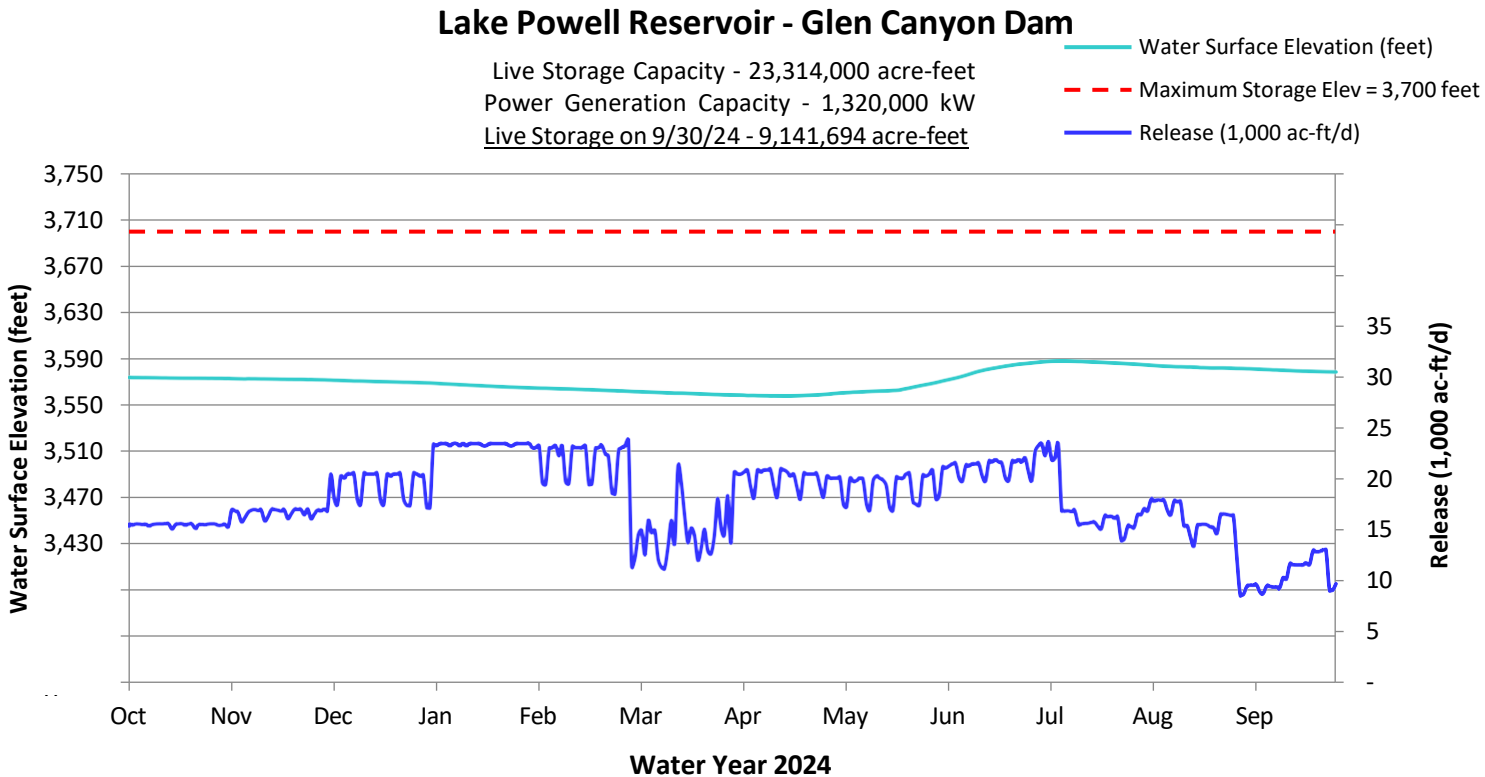


Figure 13: Water surface elevation, maximum storage elevation, and reservoir releases from Lake Powell in Water Year 2024.

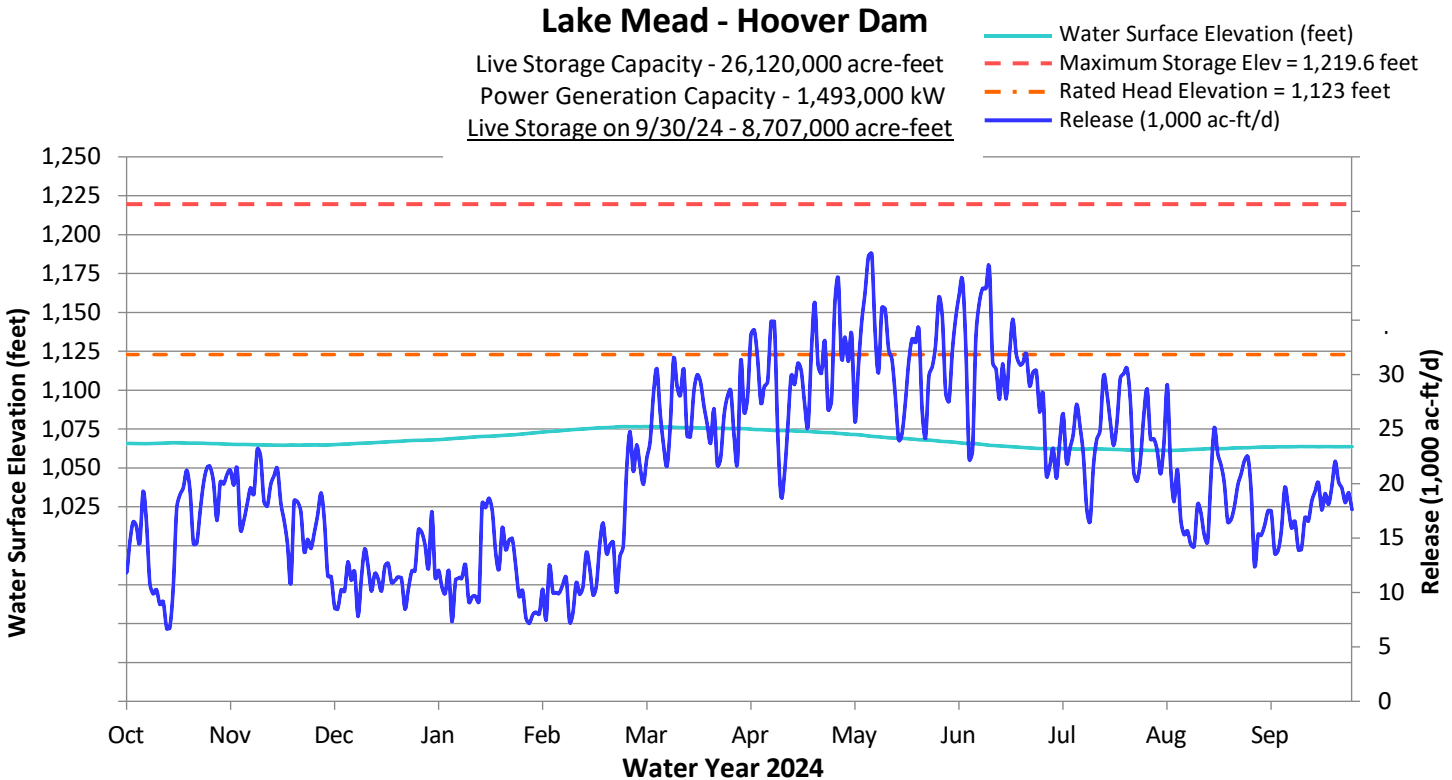


Figure 14: Water surface elevation, maximum storage elevation, and reservoir releases from Lake Mead in Water Year 2024.

Flows of the Colorado River

Article III(d) of the 1922 Colorado River Compact stipulates that "the States of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in a continuing progressive series beginning with the first day of October next succeeding the ratification of this Compact." Prior to the storage of water in CRSP reservoirs, which began in 1962, the flow of the river at Lee Ferry in any ten consecutive years was greatly in excess of the 75,000,000 acre-feet required by the Compact. Beginning in 1962, CRSP reservoirs have regulated the river above Glen Canyon Dam.

Table 8 on pages 48 through 50 shows the estimated natural flow of the Colorado River at Lee Ferry, Arizona for each water year from 1896 through 2024. Column (4) of the table shows the average natural flow for any given year within the period computed through Water Year 2024. Column (5) shows the average natural flow for a given year within the period computed since 1896. Column (6) shows the average natural flow for each progressive ten-year period beginning with the ten-year period ending on September 30, 1905. The difference between the natural flow for a given year and the average flow over the 128-year period, 1896 through 2024, is shown in column (7).

Table 9 on page 51, shows the historic flow at Lee Ferry for the period 1954 through 2024 and the historic flow for each progressive ten-year period from 1954 through 2024, beginning with the ten-year period ending September 30, 1962, the commencement of storage in CRSP reservoirs.

The flow at Lee Ferry during the ten-year period ending on September 30, 2024, was 86,029,234 acre-feet. Figures 15 and 16 illustrate some of the pertinent historical flows through the Colorado River System above Lee Ferry. In Figure 15, the top of each blue vertical bar represents the estimated natural flow of the river, i.e., the flow of the river in millions of acre-feet past Lee Ferry for a given year had it not been depleted by human activities. The lower dark grey bars represent the estimated or measured historic flow at Lee Ferry, and the difference between the two sections of the bar in any given year shows the stream depletion or the amount of water estimated to have been removed by human activity from the natural supply upstream from Lee Ferry.

Of note, in 1977 and again in 1981, the historic flow at Lee Ferry exceeded the natural flow. Beginning in 1962, part of this depletion at Lee Ferry was caused by the retention and storage of water in storage units of the CRSP. The horizontal line (at 14.5 maf) is the estimated long-term average natural flow from 1896 through 2024. As the 1922 Colorado River Compact is administered based on running averages over ten-year periods, the progressive ten-year average historic and natural flows are displayed on this graph as well.

Figure 16 on page 53, entitled “Lee Ferry Average Annual Natural and Historic Flow for Select Periods,” illustrates the historic measured flow at Lee Ferry and natural flow averages for several selected periods of record. The periods selected are those referenced most often for various purposes related to Colorado River System operations.

On page 53, from the top bars to bottom.

1) For the longest period shown, 1896-2024, the estimated average annual natural flow is 14.5 maf, and the average annual historic measured flow is 11.5 maf.
2) For the period 1896-1921, prior to the 1922 Colorado River Compact, the estimated average annual natural flow was 16.8 maf, which is considerably greater than for any other period selected, including the long-term average. A streamgage station at Lee Ferry, Arizona was not installed until 1921. The natural flow at Lee Ferry prior to the 1922 Compact was estimated based on records obtained at other stations (e.g., the streamgage on the Colorado River at Yuma, Arizona for the period 1902-1921).
3) For the second-longest period shown, 1906-2024, the estimated average annual natural flow is 14.5 maf, and the average annual historic measured flow is 11.3 maf. Many of the early records for this series of years as well as for the 1896-2024 period are based on estimates of flows made at other streamgage stations, as mentioned in (2) above. This average is about equal to the 15 maf estimated for the 1906-1967 period, which was used as the basis for justification of a water supply for the Central Arizona Project authorized in 1968.
4) The estimated average annual natural flow during the 1914-2024 period is 14.3 maf. This period is an extension of the 1914-1965 period used in the Upper Colorado Region Comprehensive Framework studies of 1971. The average annual natural flow for the 1914-1965 period is 14.6 maf.
5) The average annual natural flow for the period 1914-1945 is 15.6 maf. This was the period of record used by the negotiators of the Upper Colorado River Basin Compact.
6) For the period 1922-2024, which is the period of record since the signing of the Colorado River Compact, the average annual natural flow is 13.9 maf, and the average annual historic measured flow is 10.5 maf. Records for this series of years are based upon actual measurements of flows at the Lees Ferry streamgage. The ten-year progressive moving average flow since 1922 is considerably less than the ten-year progressive moving average flow prior to 1922.
7) The 1931-2018 or “early pluvial removed” period of record is currently used for hydrologic modeling purposes by Reclamation. It excludes a period of unusual wetness prevalent in the pre-1931 period.
8) Two completely unrelated ten-year periods of minimum flows have

occurred since 1930. During these periods, 1931-1940 and 1954-1963, the average annual natural flow amounts to 11.8 maf and 11.6 maf, respectively.

9) For a 12-year period, 1953-1964, the average annual natural flow amounted to 11.6 maf.
10) Since Glen Canyon Dam's closure in 1963, the estimated natural flow for the subsequent 59 years is 14.0 maf. The estimated historical measured flow for the same period (1964-2024) is 9.6 maf.
11) The 1988-2019 period, or "stress test hydrology" period of record, is currently used by Reclamation for hydrologic modeling purposes and was used during the development of the DCPs to evaluate the relative risk of various operational scenarios. It comprises a period of more extreme dryness that may represent changing hydrology due to climate change. The estimated natural flow for this period is 13.3 maf, while the historic flow for the same period is 9.2 maf.
12) The estimated average annual natural flow and historic measured flow amounts recorded for the 2000-2024 period of record (now generally referred to as the "Millennium Drought") are used as the extent years of the most recent extended drought and further illustrate the trend within the Upper Basin of reduced hydrologic flow. The estimated natural flow for this period is 12.4 maf.

Table 8: Estimated natural flow volumes of the Colorado River at Lee Ferry.

Years to 2024	End of Water Year	Estimated Natural Flow (maf)	Average to 2024 (maf)	Average Since 1896	Progressive 10-Year Average (maf)	Natural Flow Minus 128-Year Average (maf)
128	1896	10.1	14.5	10.1		-4.4
127	1897	18.0	14.5	14.1		3.5
126	1898	13.8	14.5	14.0		-0.7
125	1899	15.9	14.5	14.5		1.4
124	1900	13.2	14.5	14.2		-1.3
123	1901	13.6	14.5	14.1		-0.9
122	1902	9.4	14.5	13.4		-5.1
121	1903	14.8	14.6	13.6		0.3
120	1904	15.6	14.6	13.8		1.1
119	1905	16.0	14.6	14.0	14.0	1.5
118	1906	19.1	14.5	14.5	14.9	4.6
117	1907	23.4	14.5	15.2	15.5	8.9
116	1908	12.9	14.4	15.1	15.4	-1.6
115	1909	23.3	14.4	15.7	16.1	8.8
114	1910	14.2	14.4	15.6	16.2	-0.3
113	1911	16.0	14.4	15.6	16.5	1.5
112	1912	20.5	14.4	15.9	17.6	6.0
111	1913	14.5	14.3	15.8	17.6	0.0
110	1914	21.2	14.3	16.1	18.1	6.7
109	1915	14.0	14.2	16.0	17.9	-0.5
108	1916	19.2	14.2	16.1	17.9	4.7
107	1917	24.0	14.2	16.5	18.0	9.5
106	1918	15.4	14.1	16.4	18.2	0.9
105	1919	12.5	14.1	16.3	17.2	-2.0
104	1920	22.0	14.1	16.5	17.9	7.5
103	1921	23.0	14.0	16.8	18.6	8.5
102	1922	18.3	13.9	16.8	18.4	3.8
101	1923	18.3	13.9	16.9	18.8	3.8
100	1924	14.2	13.8	16.8	18.1	-0.3
99	1925	13.0	13.8	16.6	18.0	-1.5
98	1926	15.9	13.9	16.6	17.7	1.4
97	1927	18.6	13.8	16.7	17.1	4.1
96	1928	17.3	13.8	16.7	17.3	2.8
95	1929	21.4	13.7	16.8	18.2	6.9
94	1930	14.9	13.7	16.8	17.5	0.4
93	1931	7.8	13.7	16.5	16.0	-6.7
92	1932	17.2	13.7	16.6	15.9	2.7
91	1933	11.4	13.7	16.4	15.2	-3.1
90	1934	5.6	13.7	16.1	14.3	-8.9
89	1935	11.6	13.8	16.0	14.2	-2.9
88	1936	13.8	13.8	16.0	14.0	-0.7
87	1937	13.7	13.8	15.9	13.5	-0.8
86	1938	17.5	13.8	16.0	13.5	3.0
85	1939	11.1	13.8	15.8	12.5	-3.4

Years to 2024	End of Water Year	Estimated Natural Flow (maf)	Average to 2024 (maf)	Average Since 1896	Progressive 10-Year Average (maf)	Natural Flow Minus 128-Year Average (maf)
84	1940	8.6	13.8	15.7	11.8	-5.9
83	1941	18.1	13.9	15.7	12.9	3.6
82	1942	19.1	13.8	15.8	13.1	4.6
81	1943	13.1	13.8	15.8	13.2	-1.4
80	1944	15.2	13.8	15.7	14.2	0.7
79	1945	13.4	13.7	15.7	14.4	-1.1
78	1946	10.4	13.7	15.6	14.0	-4.1
77	1947	15.5	13.8	15.6	14.2	1.0
76	1948	15.6	13.8	15.6	14.0	1.1
75	1949	16.4	13.7	15.6	14.5	1.9
74	1950	12.9	13.7	15.6	15.0	-1.6
73	1951	11.6	13.7	15.5	14.3	-2.9
72	1952	20.7	13.7	15.6	14.5	6.2
71	1953	10.6	13.7	15.5	14.2	-3.9
70	1954	7.7	13.7	15.4	13.5	-6.8
69	1955	9.2	13.8	15.3	13.1	-5.3
68	1956	10.7	13.8	15.2	13.1	-3.8
67	1957	20.1	13.9	15.3	13.6	5.6
66	1958	16.5	13.8	15.3	13.6	2.0
65	1959	8.6	13.8	15.2	12.9	-5.9
64	1960	11.3	13.8	15.1	12.7	-3.2
63	1961	8.5	13.9	15.0	12.4	-6.0
62	1962	17.3	14.0	15.0	12.1	2.8
61	1963	8.4	13.9	15.0	11.8	-6.1
60	1964	10.2	14.0	14.9	12.1	-4.3
59	1965	18.9	14.1	14.9	13.1	4.4
58	1966	11.2	14.0	14.9	13.1	-3.3
57	1967	11.9	14.0	14.8	12.3	-2.6
56	1968	13.7	14.1	14.8	12.0	-0.8
55	1969	14.4	14.1	14.8	12.6	-0.1
54	1970	15.4	14.1	14.8	13.0	0.9
53	1971	15.1	14.1	14.8	13.7	0.6
52	1972	12.2	14.0	14.8	13.1	-2.3
51	1973	19.4	14.1	14.9	14.2	4.9
50	1974	13.3	14.0	14.8	14.6	-1.2
49	1975	16.6	14.0	14.9	14.3	2.1
48	1976	11.6	13.9	14.8	14.4	-2.9
47	1977	5.8	14.0	14.7	13.8	-8.7
46	1978	15.2	14.1	14.7	13.9	0.7
45	1979	17.9	14.1	14.8	14.3	3.4
44	1980	17.5	14.1	14.8	14.5	3.0
43	1981	8.2	14.0	14.7	13.8	-6.3
42	1982	16.2	14.1	14.7	14.2	1.7
41	1983	24.0	14.0	14.8	14.6	9.5
40	1984	24.5	13.8	14.9	15.8	10.0

Years to 2024	End of Water Year	Estimated Natural Flow (maf)	Average to 2024 (maf)	Average Since 1896	Progressive 10-Year Average (maf)	Natural Flow Minus 128-Year Average (maf)
39	1985	20.8	13.5	15.0	16.2	6.3
38	1986	21.9	13.3	15.1	17.2	7.4
37	1987	16.9	13.1	15.1	18.3	2.4
36	1988	11.5	13.0	15.1	17.9	-3.0
35	1989	9.4	13.0	15.0	17.1	-5.1
34	1990	8.6	13.1	14.9	16.2	-5.9
33	1991	12.3	13.3	14.9	16.6	-2.2
32	1992	11.0	13.3	14.9	16.1	-3.5
31	1993	18.5	13.4	14.9	15.5	4.0
30	1994	10.4	13.2	14.9	14.1	-4.1
29	1995	19.7	13.3	14.9	14.0	5.2
28	1996	13.8	13.1	14.9	13.2	-0.7
27	1997	21.0	13.1	15.0	13.6	6.5
26	1998	16.8	12.7	15.0	14.2	2.3
25	1999	16.1	12.6	15.0	14.8	1.6
24	2000	10.3	12.4	14.9	15.0	-4.2
23	2001	10.9	12.5	14.9	14.9	-3.6
22	2002	5.5	12.6	14.8	14.3	-9.0
21	2003	10.5	12.9	14.8	13.5	-4.0
20	2004	9.1	13.1	14.7	13.4	-5.4
19	2005	17.0	13.3	14.7	13.1	2.5
18	2006	13.1	13.1	14.7	13.0	-1.4
17	2007	12.5	13.1	14.7	12.2	-2.0
16	2008	16.4	13.1	14.7	12.1	1.9
15	2009	14.3	12.9	14.7	12.0	-0.2
14	2010	12.9	12.8	14.7	12.2	-1.6
13	2011	20.4	12.8	14.8	13.2	5.9
12	2012	8.1	12.1	14.7	13.4	-6.4
11	2013	9.1	12.5	14.6	13.3	-5.4
10	2014	14.8	12.8	14.5	13.9	0.3
9	2015	14.2	12.6	14.6	13.6	-0.2
8	2016	14.0	12.4	14.6	13.7	-0.5
7	2017	16.6	12.2	14.7	14.1	2.1
6	2018	8.0	11.5	14.6	13.2	-6.5
5	2019	18.0	12.2	14.6	13.6	3.5
4	2020	9.6	10.7	14.6	13.3	-4.9
3	2021	6.2	11.1	14.5	11.9	-8.3
2	2022	9.1	13.5	14.5	12.0	-5.4
1	2023	17.9	17.9	14.5	12.8	3.4
--	**2024**	12.0	15.0	14.5	12.6	-2.5
	Maximum	24.5	24.5	--	--	18.8
	Minimum	5.5	5.5	--	--	11.8
	Average	14.5	14.5	--	--	14.6

Table 9: Estimated historical flows of the Colorado River at Lees Ferry.

End of Water Year	Historic Flow at Lee Ferry (maf)	10-Year Progressive Flow at Lee Ferry (kaf)	End of Water Year	Historic Flow at Lee Ferry (maf)	10-Year Progressive Flow at Lee Ferry (kaf)
1954	6.116	115,636	1990	8.151	128,406
1955	7.307	111,403	1991	8.131	128,221
1956	8.750	111,409	1992	8.023	127,921
1957	17.340	115,239	1993	8.137	118,537
1958	14.260	115,809	1994	8.304	106,324
1959	6.756	108,205	1995	9.242	96,457
1960	9.192	106,337	1996	11.532	91,123
1961	6.674	103,180	1997	13.874	91,547
1962	14.790	99,990	1998	13.440	96,827
1963	2.520	93,705	1999	11.430	100,264
1964	2.427	90,016	2000	9.529	101,642
1965	10.835	93,544	2001	8.361	101,872
1966	7.870	92,664	2002	8.347	102,197
1967	7.824	83,148	2003	8.372	102,432
1968	8.358	77,246	2004	8.348	102,475
1969	8.850	79,340	2005	8.395	101,628
1970	8.688	78,836	2006	8.507	98,603
1971	8.607	80,769	2007	8.421	93,150
1972	9.330	75,309	2008	9.180	88,890
1973	10.141	82,930	2009	8.406	85,866
1974	8.277	88,780	2010	8.437	84,774
1975	9.274	87,219	2011	12.753	89,166
1976	8.494	87,843	2012	9.542	90,361
1977	8.269	88,288	2013	8.289	90,277
1978	8.369	88,299	2014	7.590	89,519
1979	8.333	87,782	2015	9.157	90,282
1980	10.950	90,044	2016	9.138	90,913
1981	8.316	89,753	2017	9.170	91,661
1982	8.323	88,746	2018	9.171	91,653
1983	17.520	96,125	2019	9.264	92,511
1984	20.518	108,366	2020	8.436	92,509
1985	19.109	118,201	2021	8.293	88,049
1986	16.866	126,573	2022	7.083	85,590
1987	13.450	131,754	2023	8.749	86,050
1988	8.160	131,545	2024	7.569	86,029
1989	7.994	131,205			

Table Note: Storage in Flaming Gorge and Navajo Reservoirs began in 1962. Storage in Lake Powell began in 1963. Storage in Fontanelle Reservoir began in 1964.

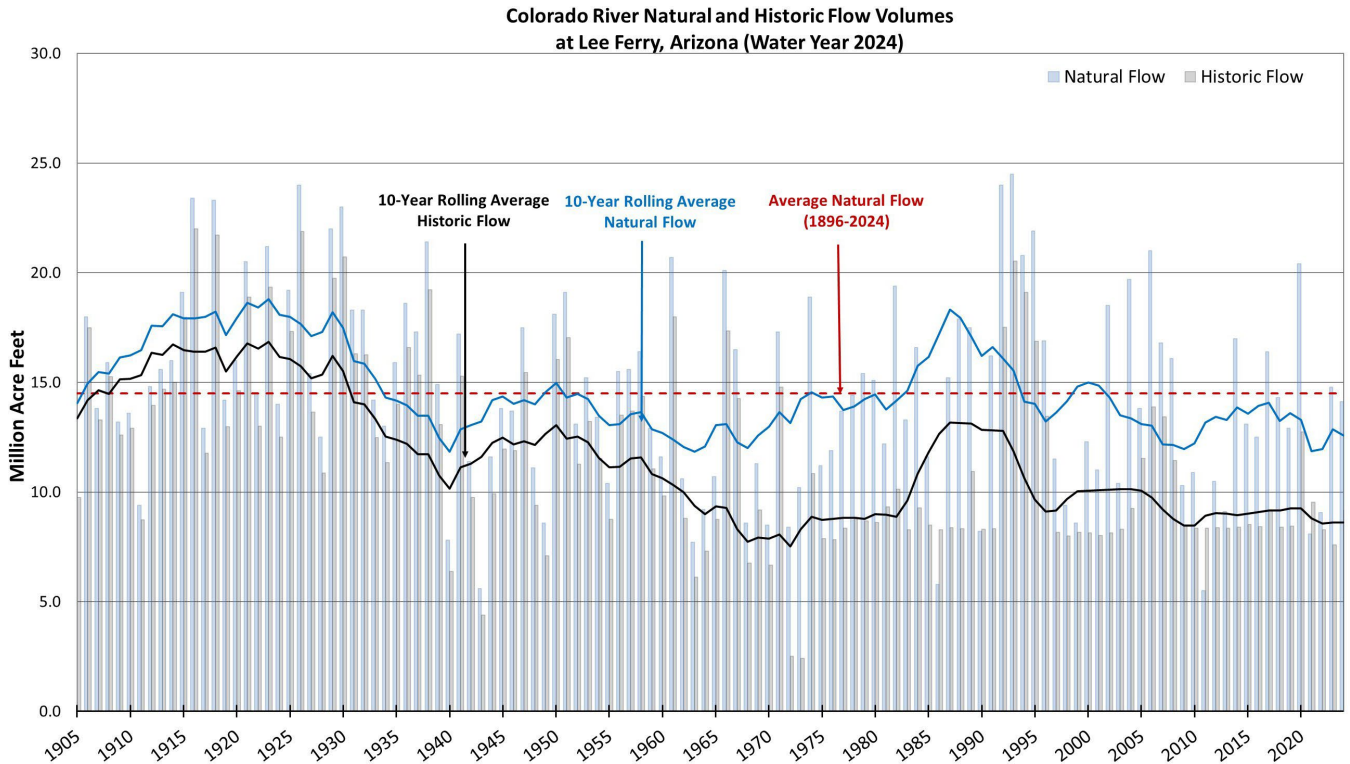


Figure 15: Natural and historical flow volumes of the Colorado River at Lee Ferry, Arizona. Natural flow volumes by water year are shown in blue bars, historic flow volumes in black bars. The 10-year rolling average for natural flow is represented by the blue line and the historic flow is represented by the back line. The average flow volume is depicted by the red dashed line.

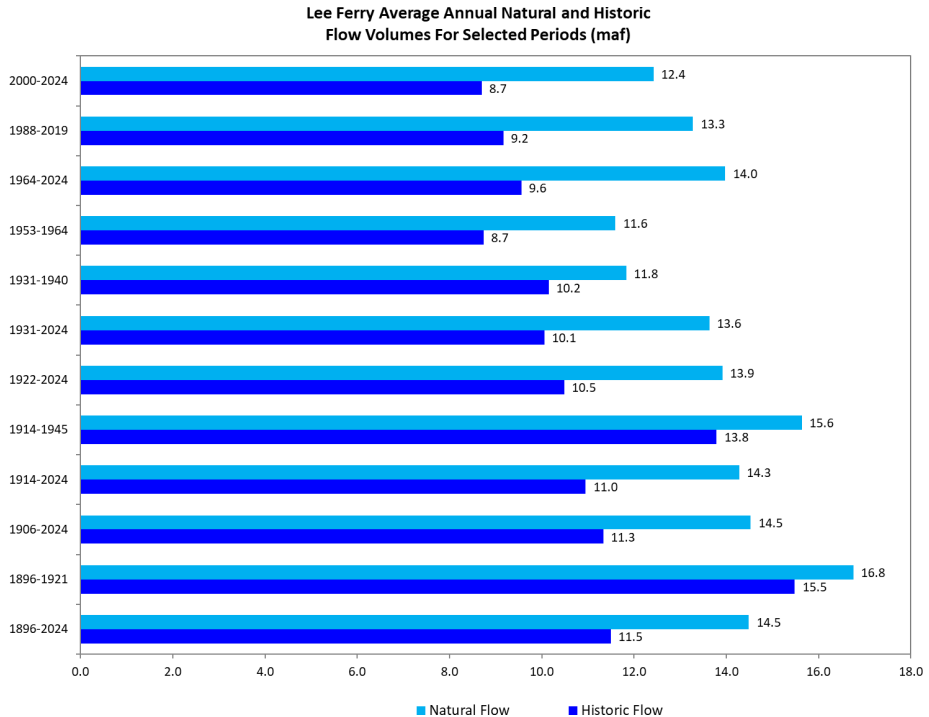


Figure 16: Comparison of natural and historic flow of the Colorado River at Lee Ferry by key periods

LEGAL MATTERS

Litigation Summary

Save the Colorado v. United States Department of the Interior, CV-19-08285 (D. Ariz. 2022).

In 2019, Save the Colorado, Living Rivers, and the Center for Biological Diversity ("Plaintiffs") filed a Complaint against the U.S. Department of Interior and the Secretary of the Interior ("Defendants"), challenging the Department's adoption of the Glen Canyon Long-Term Experimental and Management Plan ("LTEMP"). The Plaintiffs' claims concerned the adequacy of Defendants' consideration of climate change, as well as Plaintiffs' eleven proposed alternatives, in the LTEMP Final Environmental Impact Statement ("FEIS"). On December 23, 2022, the U.S. District Court for the District of Arizona issued an Order denying Plaintiffs', and granting Defendants', motions for summary judgment on all four of the Plaintiffs' claims under the National Environmental Policy Act ("NEPA") and the Administrative Procedures Act ("APA").

In light of the limited purpose of the LTEMP—to set guidelines regarding hourly, daily, and monthly releases, consistently with the Law of the River—the court rejected Plaintiffs' arguments based on the FEIS' failure to discuss potential impacts of climate change on annual releases. The court found that Defendants adequately considered climate change in determining the scope of the project, selecting alternatives, and analyzing the environmental impacts of each proposed alternative. Regarding the numerous proposed alternatives submitted by Plaintiffs, the court found that Defendants provided an appropriate explanation as to why each was eliminated. Finally, the court determined that Defendants were not required to issue a Supplemental EIS in light of newly available data from climate change studies, as the new data would not inform a better decision on the LTEMP.

On February 16, 2023, the Plaintiffs appealed the District Court's Order to the United States Court of Appeals for the Ninth Circuit.

Arizona v. Navajo Nation, 599 U.S. 555 (2023)

On June 22, 2023, the U.S. Supreme Court issued a historic 5-4 decision in Arizona v. Navajo Nation, ruling that the United States does not have an affirmative duty to secure water for the Navajo Nation. The Navajo Nation brought the action against the Department of the Interior and other federal agencies, alleging, among other things, that the agencies had violated their trust obligations to the Tribe by failing to consider the Tribe's water rights in the management of the Colorado River. The States of Arizona, Colorado, and Nevada intervened against the Tribe's claims. The United States District Court of Arizona initially dismissed the Navajo

Nation's complaint, but the Ninth Circuit reversed, ruling in favor of the Tribe.

Writing for the majority, Justice Brett Kavanaugh reversed the Ninth Circuit's decision, holding that to establish a breach-of-trust claim, a Tribe must establish that the "text of a treaty, statute, or regulation imposed certain duties on the United States" via specific "rights-creating or duty-imposing" language. In examining the 1868 Treaty of Bosque Redondo, which established the Tribe's reservation, the majority found that the treaty reserved necessary water to accomplish the purpose of the reservation but "said nothing about any affirmative duty for the United States to secure water." Chief Justice John Roberts and Justices Samuel Alito, and Amy Coney Barrett joined the majority opinion.

Justice Clarence Thomas joined the majority opinion in full, but offered a separate concurrence that urged the Court to "clarify the exact status of this amorphous and seemingly ungrounded 'trust relationship.'" He also suggested that the Court acknowledge "that many of this Court's statements about the trust relationship [in other cases] were mere dicta."

Justice Neil Gorsuch, joined by Justices Elena Kagan, Sonia Sotomayor, and Ketanji Brown Jackson, dissented. Gorsuch argued that the Navajo Nation's complaint only asked the government to identify the water rights it holds in trust for the Tribe, rather than demanding that the federal government guarantee water. Because the federal government holds some of the Navajo Nation's water rights in trust and exercises control over possible sources of water in which the Tribe may have rights, including the mainstem of the Colorado River, Gorsuch reasoned that "the government owes the Tribe a duty to manage the water it holds for the Tribes in a legally responsible manner," which duty includes "assessing what water rights it holds for them."

COLORADO RIVER SALINITY PROGRAM

The Upper Colorado River Commission has continued its interest and involvement in the Colorado River Basin salinity control efforts. The Commission staff has worked with representatives of the Commission's member States, particularly through the Colorado River Basin Salinity Control Forum, which is composed of representatives from the seven Colorado River Basin States. The Forum has developed water quality standards, including a plan of implementation, to meet Clean Water Act requirements. Section 303 of the Clean Water Act requires that water quality standards be reviewed at least once during each three-year period. In 2023, the Forum reviewed the existing State-adopted and Environmental Protection Agency-approved numeric salinity criteria and found no reason to recommend changes for the three Lower Basin mainstem stations, which are as follows:

Salinity in (mg/l)	
Below Hoover Dam	723
Below Parker Dam	747
At Imperial Dam	879

The Forum then updated its plan of implementation and published the draft 2023 Review for public comment in June 2023. No public comments were received, and the Forum formally adopted the *2023 Review, Water Quality Standards for Salinity, Colorado River System* at its October 2023 meeting. For a number of years, the States, the Upper Colorado River Commission, and the Forum have worked with Reclamation to continue to update its river model (CRSS) that can reproduce flows and salinity concentrations of the past and predict probabilities of flows and salinity concentrations in the future. This model is used as a tool in the preparation of the reviews.

The Salinity Control Program has been successful in implementing controls that have reduced the average concentrations at all three downstream stations by about 100 mg/L. The salinity standards are based on long-term average flows, and the river model can assist with the analysis of future salinity control needs. The 2023 Review recognized existing measures in place which control about 1.33 million tons of salt annually and the need to implement new measures over the triennial review period to control an additional 51,700 tons annually. Looking to out years, the Forum identified a program to control a total of 1.55 million tons annually by the year 2040. The Salinity Control Program is not designed to offset short-term variances caused by short-term hydrologic differences from the norm.

The Forum has also been heavily involved in working with Reclamation on identifying a brine disposal alternative for Reclamation's Paradox Valley Unit. This unit has historically reduced the salt load of the Colorado River by about 100,000 tons of salt per year, but seismic concerns from deep-well injection have caused a

reduction in brine disposal to about 65,000 tons annually while Reclamation seeks a new brine disposal alternative. In 2024 the Forum was successful in getting legislation passed which adjusted the Program cost-share split between appropriations and the Basin Funds bringing into balance Program requirements with reduced power generation associated with sustained drought.

COLORADO RIVER STORAGE PROJECT (CRSP) AND PARTICIPATING PROJECTS

AUTHORIZED STORAGE UNITS

Information relative to storage units and participating projects has been provided by the United States Department of the Interior, Bureau of Reclamation, Interior Region 7: Upper Colorado Basin.

The guiding force behind development and management of water in the Upper Basin is the Colorado River Storage Project (CRSP). Authorized by the Colorado River Storage Project Act of 1956 (Public Law [P.L.] 485, 84th Congress, 70 Stat. 105) (CRSPA), the CRSP allows for the comprehensive development of water resources of the Upper Basin States while providing for long-term regulatory storage of water to meet the entitlements of the Lower Basin. The CRSP is one of the most complex and extensive river resource developments in the world and was integral to the development of the arid West.

Four initial storage units were authorized by the 1956 Act: The Glen Canyon Unit on the Colorado River in Arizona and Utah; the Flaming Gorge Unit on the Green River in Utah and Wyoming; the Navajo Unit on the San Juan River in Colorado and New Mexico; and the Wayne N. Aspinall Unit, formerly named the Curecanti Unit and rededicated in July 1981, on the Gunnison River in Colorado. The Aspinall Unit consists of Blue Mesa, Morrow Point, and Crystal dams and reservoirs. Combined, the four main storage units provide about 30.6 million acre-feet of live water storage capacity. The CRSPA also authorized the construction of eleven participating projects. Additional participating projects have been authorized by subsequent Congressional legislation.

As stated in the CRSPA, the CRSP was authorized "[I]n order to initiate the comprehensive development of the water resources of the Upper Colorado River Basin, for the purposes, among others, of regulating the flow of the Colorado River, storing water for beneficial consumptive use, making it possible for the States of the Upper Basin to utilize, consistently with the provisions of the Colorado River Compact, the apportionments made to and among them in the Colorado River Compact and the Upper Colorado River Basin Compact, respectively, providing for the reclamation of arid and semiarid land, for the control of floods, and for the generation of hydroelectric power, as an incident of the foregoing purposes." Key benefits are also provided for recreation and for fish and wildlife needs and other environmental considerations per the Colorado River Basin Project Act of 1968 (CRBPA), National Environmental Policy Act of 1969 (NEPA), Endangered Species Act of 1973 (ESA), and Grand Canyon Protection Act of 1992 (GCPA).

The CRSP initial storage units and authorized participating projects are described in this 76th Annual Report and earlier annual reports of the Upper Colorado River Commission. Outlined below are updates on construction, operation and

maintenance, power generation, recreational use, invasive mussel control, planning investigation activities, reservoir operations, and appropriations of funds for the storage units and participating projects accomplished during the past water year (October 1, 2023, to September 30, 2024), the federal fiscal year (October 1, 2023, to September 30, 2024), and the calendar year (2024). Significant upcoming or projected information is also included for some storage units and projects.

Glen Canyon Unit

Glen Canyon Dam and Lake Powell Reservoir comprises the key storage unit of the CRSP and is the largest of the initial four, providing about 80% of the storage and generating capacity. Construction of the dam was completed in 1963.

Figure 17: A view of Glen Canyon Dam and low Lake Powell elevations, 2025

At optimum conditions, the eight generators at Glen Canyon Dam can produce 1,320 megawatts of power. Water is drawn into the power penstock intakes about 200-230 feet below the surface of Lake Powell at full pool, which results in clear cold water with year-round temperatures of 45°F to 50°F being released from Glen Canyon Dam. During protracted droughts, such as has occurred since 2000, Lake Powell elevations decline to levels where warmer water is drawn through the penstocks and released downstream.

Since the damming of the river in 1963, there has been only one flow release that approached average pre-dam spring floods. In 1983, unanticipated hydrologic events in the Upper Colorado River Basin, combined with a lack of available storage space in Lake Powell resulted in emergency releases from Glen Canyon Dam that

reached 93,000 cubic feet per second (cfs). Except for the flood events of the mid-1980s, historic daily releases prior to the preparation of the final 1995 Glen Canyon Dam Environmental Impact Statement (EIS) generally ranged between 1,000 cfs and 25,000 cfs, with flows averaging between 5,000 cfs and 20,000 cfs.

The Colorado River ecosystem below the dam has changed significantly from its pre-dam natural character because of the construction and operation of Glen Canyon Dam. In addition, the dam's highly variable flow releases from 1964 to 1991 caused concern over resource degradation resulting from dam operations. Because of these concerns, the Secretary of the Interior (Secretary) adopted interim operating criteria in October 1991 that narrowed the range of daily powerplant fluctuations.

Responding to concerns that changes to the Colorado River ecosystem were resulting from dam operations, Reclamation launched the Glen Canyon Environmental Studies program in 1982. The research program's first phase (1982-1988) focused on developing baseline resource assessments of physical and biotic resources. The second phase (1989-1996) introduced experimental dam releases and expanded research programs in native and non-native fishes, hydrology and aquatic habitats, terrestrial flora and fauna, cultural and ethnic resources, and social and economic impacts.

By the late 1980s, sufficient knowledge had been developed to raise concerns that downstream impacts were occurring and that additional information needed to be developed to quantify the effects and to develop management actions that could avoid and/or mitigate the impacts. This collective information, and other factors, led to a July 1989 decision by the Secretary to direct Reclamation to prepare an EIS on the operation of Glen Canyon Dam. The intent was to evaluate alternative dam operation strategies to lessen the impacts of operations on downstream resources.

In October 1992, President George H.W. Bush signed into law the Reclamation Projects Authorization and Adjustment Act, P.L. 102-575. Responding to continued concerns over potential impacts of Glen Canyon Dam operations on downstream resources, Congress included the Grand Canyon Protection Act (GCPA) as Title 18 of this Act. Section 1802(a) of the GCPA requires the Secretary to operate Glen Canyon Dam:

"… in accordance with the additional criteria and operating plans specified in Section 1804 and exercise other authorities under existing law in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including, but not limited to natural and cultural resources and visitor use."

The GCPA directs the Secretary to implement this section in a manner fully consistent with all existing laws that govern the allocation, appropriation, development, and exportation of the waters of the Colorado River Basin.

Section 1804 of the GCPA required preparation of an EIS, adoption of operating criteria and plans, reports to Congress, and allocation of costs. The Operation of Glen Canyon Dam Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency in March 1995 and a Record of Decision (ROD) was signed in October 1996. Following the signing of the ROD, the Secretary adopted a formal set of operating criteria (February 1997) and the 1997 Annual Plan of Operations. This action terminated the 1991 interim operating criteria.

The signing of the 1996 ROD began a new chapter in the history of Glen Canyon Dam. In addition to meeting traditional water and power needs, the dam was now being operated in a more environmentally sensitive manner. The EIS process demonstrated the value of a cooperative, integrative approach to dealing with complex environmental issues. The inclusion of stakeholders resulted in a process that served to guide future operations of Glen Canyon Dam and became a template for other river systems.

Adaptive Management

The Glen Canyon Dam Adaptive Management Program (AMP) was implemented following the 1996 ROD on the Operation of Glen Canyon Dam FEIS to comply with consultation requirements of the GCPA.[1] The 2016 ROD for the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) FEIS confirmed the continuation of the AMP. The AMP provides an organizational structure and process to ensure the use of scientific information in decision making for Glen Canyon Dam operations and protection of downstream resources in Glen Canyon and Grand Canyon consistent with the GCPA.

The AMP includes the Adaptive Management Work Group (AMWG) federal advisory committee, Secretary's Designee, Technical Work Group, U.S. Geological Survey's Grand Canyon Monitoring and Research Center, and independent scientific review panels. Regional Directors from Department of the Interior bureaus such as Reclamation and the National Park Service (NPS) also facilitate communication and cooperation within the AMP. The AMWG makes recommendations to the Secretary concerning Glen Canyon Dam operations and other management actions to protect resources downstream of the dam consistent with the GCPA and other applicable provisions of federal law.

A diverse group of 25 stakeholders from federal, state, and tribal governments; contractors who purchase power from Glen Canyon Dam; and environmental and recreational organizations participate in the AMWG and each has a voice in formal recommendations. The AMP stakeholders have divergent views on the interpretation of the GCPA, particularly regarding how it may or may not amend

[1] U.S. Bureau of Reclamation. Glen Canyon Dam Adaptive Management Program. Website accessed at: https://www.usbr.gov/uc/progact/amp/index.html.

previous statutes related to the operation of Glen Canyon Dam. While each stakeholder represents their own interests, they also work together for the common good of protecting the ecosystem downstream from Glen Canyon Dam and meeting provisions of the GCPA, ESA, National Historic Preservation Act, and other relevant federal laws.

Current efforts in the AMP include improving the status of the endangered razorback sucker[2] and the threatened humpback chub, the conservation of sediment to rebuild beaches in Glen Canyon and Grand Canyon, and the protection of cultural resources. With water levels declining to historically low levels, which contributes to higher water temperatures in Lake Powell, juvenile smallmouth bass were found in the Colorado River below the dam in 2022 and 2023 and are a threat to downstream native fish, including the humpback chub and razorback suckers. Reclamation is pursuing implementation of flow options at Glen Canyon Dam to respond to invasive smallmouth bass below the dam.[3]

The AMP will continue to make progress in forming partnerships among participants, understanding resource issues, and experimenting with dam operations and other management actions to better accomplish the intent of the LTEMP ROD and GCPA.

Record of Decision for the Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead

Against the backdrop of the worst drought in over a century on the Colorado River, and pursuant to a Secretarial directive to finish this effort by 2007, Reclamation worked with the Basin States through a NEPA process to develop interim operational guidelines for Lake Powell and Lake Mead to address drought and low reservoir conditions. These operational guidelines provided Colorado River water users and managers in the United States a greater degree of certainty about how the two large reservoirs on the Colorado River will be operated under low water conditions, and when – and by how much – water deliveries will be reduced to the Lower Basin states of Arizona, California, and Nevada in the event of drought or other low reservoir conditions. In a separate, cooperative process, Reclamation worked through the State Department to consult with Mexico regarding potential water delivery reductions to Mexico under the 1944 Treaty with the United States.

A ROD was signed by the Secretary in December 2007 that implements the interim operational guidelines that will be in place through 2026. The key components of the guidelines are: (1) a shortage strategy for Lake Mead and the Lower Division

[2] U.S. Bureau of Reclamation. Larval Trigger Study Plan Pays Off Big for Razorback Sucker in 2022. Accessed at: https://www.usbr.gov/newsroom/news-release/4393?field_story=1&filterBy=region&region=Upper%20Colorado%20Basin.

[3] U.S. Bureau of Reclamation. Protecting threatened and endangered fish below Glen Canyon Dam. Accessed at: https://www.usbr.gov/uc/progact/amp/index.html

states, (2) coordinated operations of Lakes Powell and Mead through a full range of operations, (3) a mechanism for the creation and delivery of conserved system and non-system water in Lake Mead (Intentionally Created Surplus), and (4) the modification and extension of the existing Interim Surplus Guidelines.

Consistent with Section XI.G.7.D. of the 2007 Interim Guidelines Record of Decision (2007 Interim Guidelines), Reclamation completed a review of the implementation of the Guidelines (7.D. Review).[4] The review is a retrospective look at past operations and actions under the 2007 Interim Guidelines and is not a consideration of future activities. Through the 7.D. Review, Reclamation built a technical foundation to inform future consideration of operations and brings partners, stakeholders, and the public to a common understanding of past operations and their effectiveness. The 7.D. Review was completed in December 2020.

Several reservoir and water management decisional documents and agreements that govern the operation of Lake Powell and Lake Mead expire at the end of 2026. These include the 2007 Interim Guidelines, some provisions of the 2019 Drought Contingency Plans, as well as international agreements between the United States and Mexico pursuant to the United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944 Water Treaty).

Figure 18: downstream image of Glen Canyon Dam, 2025

[4] U.S. Bureau of Reclamation. 7.D. Review & Report Background. Accessed at: https://www.usbr.gov/ColoradoRiverBasin/7DReview.html.

The post-2026 process will be a multi-year NEPA process that will identify a range of alternatives and determine operations for Lake Powell and Lake Mead and other water management actions for potentially decades into the future. Given the scope of the task, and the conditions facing the Colorado River Basin, it is important to begin this process as soon as possible to provide ample time for a thorough, inclusive, and science-based decision-making process to be completed before the end of 2026.

2016 Glen Canyon Dam Long-Term Experimental and Management

Plan Environmental Impact Statement and Record of Decision

As directed by the Secretary in December 2010, Reclamation and the National Park Service (NPS) developed the LTEMP FEIS for Glen Canyon Dam. A Notice of Intent was published in the *Federal Register* in July 2011 that identified Reclamation and the NPS as co-leads in keeping with their respective authorities for dam operations and park management. Scoping was completed early in 2012, and the LTEMP draft EIS was published in January 2016. The LTEMP FEIS was published in October 2016, and the Secretary signed the LTEMP ROD in December 2016. The FEIS and ROD provide a comprehensive framework for adaptively managing Glen Canyon Dam over the next 20 years, consistent with the GCPA and other provisions of applicable federal law.

The purpose of the LTEMP is to guide facility operations through the use of scientific understanding of the ecosystem downstream from Glen Canyon Dam to protect, mitigate adverse effects to, and improve important downstream resources, while maintaining compliance with relevant laws, including the GCPA, ESA, and the numerous compacts, federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River." The LTEMP FEIS development process involved extensive coordination with 15 cooperating agencies (including six Native American tribes). A primary function of the LTEMP is to continue successful experimentation under the Glen Canyon Dam AMP.

Reclamation has obligations under the 2016 Long-Term Experimental and Management Plan Biological Opinion to protect humpback chub. As Lake Powell's elevation has declined, the epilimnion, where non-native warm-water predators reside, has become closer to the dam's water intakes and fish are more likely to pass through the dam into the Colorado River. This is a concern because smallmouth bass and other predatory invasive fish pose a threat to federally listed fish species and other native fish downstream of Glen Canyon Dam.

In 2022, spawning of Smallmouth Bass was recorded below Glen Canyon Dam for the first time. Spawning was also noted in 2023 and at that time Reclamation

initiated the National Environmental Policy Act process to analyze possible flow releases from Glen Canyon Dam that would cool the river and discourage warm water nonnative invasive species from spawning. A Record of Decision (ROD) for the LTEMP Final Supplemental Environmental Impact Statement (FEIS) was signed on July 3, 2024. On July 9, 2024, Reclamation implemented the Cool Mix Alternative and as a result, no Smallmouth Bass reproduction was observed. This was with increased monitoring protocols. The 2024 LTEMP supplemental FEIS also incorporates new scientific information for High-Flow Experiment (HFE) releases analyzed under the 2016 LTEMP FEIS and allows for a year-long sediment accounting window.

Drought Contingency Planning

In 2019, the Upper Basin and Lower Basin Drought Contingency Plans (DCP) were signed. The DCPs outline strategies to address the ongoing historic drought in the Colorado River Basin. The Upper Colorado Basin DCP is designed to reduce the risk of reaching critical elevations at Lake Powell and to help assure continued compliance with the 1922 Colorado River Compact.

The Drought Response Operations Agreement (DROA) is one element of the Upper Colorado Basin DCP. The DROA identifies a process to temporarily move water stored in the Colorado River Storage Project (CRSP) Initial Units above Lake Powell — Aspinall, Flaming Gorge, and Navajo — to Lake Powell when it is projected to approach elevation 3,525 feet, which was identified in the DROA as the target elevation. This elevation provides a 35-foot buffer above the critical elevation of 3,490 feet, where water management and hydropower operations could be compromised.

Maintaining an elevation above 3,525 feet will help ensure compliance with interstate water compact obligations, maintain the ability to generate hydropower at Glen Canyon Dam, and minimize adverse effects to resources and infrastructure in the Upper Basin. In 2021 and 2022, drought response actions included sending an additional 624,000 acre-feet of water (above normally scheduled releases) from upstream CRSP reservoirs to Lake Powell. Flaming Gorge provided 588,000 acre-feet and Blue Mesa provided 36,000 acre-feet of water. Due to the high snowpack and spring runoff, the 2023 Drought Response Operations Plan was able to focus on allowing upstream reservoirs to recover additional water previously sent downstream to Lake Powell. Blue Mesa and Flaming Gorge have fully recovered as of the end of February 2024. No additional actions have been taken since the reservoirs fully recovered.

Reclamation and the Upper Division States, working through the Upper Colorado River Commission, will continue to develop the Drought Response Operations Plans in accordance with the scope and purposes described in the DROA.

Recreational Use

Glen Canyon National Recreation Area (NRA), which surrounds Lake Powell, hosted 5,206,934 visitors in 2023. The National Park Service (NPS) has concession-operated facilities at Wahweap, Halls Crossing, and Bullfrog Basin on the reservoir, as well as at Lees Ferry, located 15.8 miles below Glen Canyon Dam. The Navajo Nation operates a marina at Antelope Point. Due to the ongoing drought, the marinas and services at Dangling Rope and Hite were closed during 2023.

Rainbow Bridge, considered a sacred site by Native Americans, saw 81 visitors during calendar year 2022. This is due to the low lake levels making access by boat impossible and hiking to the bridge an approximate 2-mile muddy trail slog. The NPS has requested that visitors respect the site and keep from approaching too closely or walking under the bridge. Personal watercraft use in the Rainbow Bridge area has been banned since 2000. Dock access returned for the 2023 season due to the increase in water levels from the 2022-2023 winter.

The Carl B. Hayden Visitor Center, adjacent to Glen Canyon Dam and powerplant in Page, Arizona, is owned and maintained by Reclamation and operated by the NPS. The visitor center was opened March 3, 2021, after being closed since March 2020 during the COVID-19 pandemic. The Glen Canyon Dam Guided Tour Program is subject to start back up in 2025.

Invasive Mussel Control

Invasive Quagga mussels were confirmed in Lake Powell in 2012 and are now found throughout the reservoir. Veligers are passing through the dam and adult mussels are prevalent in the Glen Canyon stretch of the river below the dam; small numbers have also been found in the Grand Canyon stretch.

The mussels have not yet adversely affected the operation of Glen Canyon Dam and Powerplant due to a proactive approach to mussel control and prevention. The most noticeable of the impacts thus far have been to the dam fixed wheel gates and the plant cooling water systems. Maintenance on the fixed wheel gates has increased due to the gates being coated with two to three inches of quagga mussels and quagga mussel shell debris has been noticed in plant water lines fed by Lake Powell (raw water). Manual removal is resource-intensive, prompting the installation of UV light technology. The specially designed lights do not harm mature mussels but instead serve as a preventive measure, stopping further growth of veliger's, the microscopic larvae responsible for their reproduction. Installation of the UV lights will happen over the next four years and will align with annual maintenance, aiming to significantly improve long-term system maintenance and minimize operational disruptions. The multifaceted approach also includes new filter/strainer baskets to capture shell debris.

Reclamation supported an evaluation and installation of a dip tank for decontamination of boats leaving Lake Powell. The dip tank at the Stateline launch

ramp was readily accepted by the boating community, which reduced the time it took a boat to get decontaminated prior to leaving Lake Powell. Another dip tank is planned to be installed on the upper end of Lake Powell, at Bullfrog, with funding help from Reclamation, however the installation of the Bullfrog decontamination dip tank has been postponed at this time. Glen Canyon Dam is continuing efforts to monitor mussel population growth which will help anticipate the magnitude of the impacts and calibrate the response. The decontamination program at Lake Powell and boat inspection stations have helped to keep other reservoirs in the UCB region from becoming infested with quagga mussels.

Flaming Gorge Unit

Construction of Flaming Gorge Dam was completed in 1962. The dam is located on the Green River in northeastern Utah, about 32 miles downstream from the Utah-Wyoming border. In December 1962, the waters of the Green River began filling the reservoir behind Flaming Gorge Dam. Nearly a year later, in September 1963, President John F. Kennedy initiated the first power generation at Flaming Gorge Powerplant. There are three generating units in the Flaming Gorge Powerplant. Uprating of the units in 1992 increased the plant's nameplate capacity from 108 megawatts to about 151 megawatts. Flaming Gorge Powerplant produces approximately 458,884,000 kilowatt-hours of energy annually to Arizona, Colorado, Nebraska, Nevada, New Mexico, Utah, and Wyoming.

Flaming Gorge Reservoir extends as far as 91 miles upstream and is part of the Flaming Gorge NRA. When the reservoir is full, at elevation 6,040 feet above sea level, it has a total capacity of 3,711,306 ac-ft and a surface area of 42,613 acres. Within the reservoir area there are two distinct types of land: a mountainous area in Utah and a desert area in Wyoming.

Figure 19: Image of Flaming Gorge Dam and Reservoir in Dutch John, Utah.

Community of Dutch John

The community of Dutch John, Utah, located about two miles northeast of the dam, was founded by the Secretary in 1958 as a community to house personnel, administrative offices, and equipment for construction and operation of Flaming Gorge Dam and powerplant. Dutch John was managed by Reclamation as a residential area to house staff involved in the operation, maintenance, and administration of Flaming Gorge Dam until 1998 when it was privatized and transferred to the local government.

Flow and Temperature Recommendations and Larval Trigger Study Plan

In September 2000, a final report entitled *Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of Flaming Gorge Dam* was published by the Upper Colorado River Endangered Fish Recovery Program (Upper Colorado Recovery Program). The report, prepared by a multi-disciplinary team, synthesizes research conducted on endangered fish in the Green River under the Upper Colorado Recovery Program and presents flow recommendations for three reaches of the Green River. In 2006, Reclamation completed a NEPA process for implementation of an operation at Flaming Gorge Dam that meets the flow recommendations. The Operation of Flaming Gorge Dam FEIS was published in November 2005 and a ROD was signed in February 2006. Flaming Gorge Dam is operated in accordance with the 2006 ROD and the September 2005 Biological Opinion on the Operation of Flaming Gorge Dam.

Reclamation has worked with the Upper Colorado Recovery Program to implement the Larval Trigger Study Plan (LTSP) since 2012, which involves timing spring peak flows with the emergence of larval razorback sucker. The goal of these operations is to provide the larval fish access to rearing habitat in floodplain wetlands. Thousands of wild spawned razorback sucker have resulted from these operations since their implementation, which is a significant step toward recovery of razorback sucker. In 2019 and in 2020, Reclamation operated Flaming Gorge Dam to provide several days of access to floodplain wetlands for larval fish, which resulted in production of several hundred razorback sucker in 2019 (plus at least two, wild-spawned bonytail) but only 32 fish in 2020 due to excessive growth of cattails. Also, during 2020, was the first year in which LTSP-produced razorback sucker were documented as mature fish on a spawning bar near Jensen, Utah, the first evidence of recruitment to adulthood resulting from the LTSP process. Due to these ongoing efforts, 2022 proved to be an exceptionally bountiful year for wetland-reared razorback sucker in the Green River, with old reproduction records being shattered. During 2024, 67 razorback sucker were produced in three of the managed wetlands (Stirrup, Stewart Lake and Matheson), tagged, then stocked into the Green and Colorado Rivers. There were also 40 young of the year bonytail harvested during the draining of Stewart Lake in 2024. Those 40 fished had remarkable growth with the largest being 252 mm and all but six were greater than 150 mm. In addition to the aforementioned LTSP, LaGory et al., (2019) study plans also include experimental, elevated base flows for improvement of Colorado pikeminnow rearing habitats, and an experimental flow spike to disadvantage smallmouth bass. Flow spikes were conducted in 2021 and 2022, and preliminary results suggest the experiment was at least partially successful in reducing smallmouth bass reproductive success. Results of elevated base flow experiments are still being evaluated. Collectively, experiments described in LaGory et al. (2019) form the backbone of Reclamation's adaptive management approach to assisting in recovery of endangered fish below Flaming Gorge Dam.

Recreational Use

The interagency agreement between Reclamation and Ashley National Forest (U.S. Forest Service, USFS) for joint management of facilities within the primary jurisdiction area expired December 31, 2013, and the U.S. Forest Service declined to enter into another agreement. As a result, operation of the visitor center is now Reclamation's sole responsibility. The visitor center is operated under a license agreement with the Intermountain Natural History Association (INHA) from April to mid-October. The license was renewed in 2024 for another 5-year term. INHA reports that 45,483 people visited the center from April-October of 2024. Public tours are no longer offered at this location, but a portion of the walkway across the dam was opened and allowed visitors to view the riverside of the dam.

There is a new effort to develop a memorandum of agreement between Reclamation and the U.S. Forest Service to better define responsibilities below the high-water line and to formalize how the agencies will work together within the larger national recreation area. There is also an effort underway to remodel the interior of the visitor center, update the exhibits, and remodel the public restrooms. The acquisitions package is being prepared and is planned to go to bid in 2027. Work will not start until after the October seasonal closure.

Invasive Mussel Control

Invasive mussel control at Flaming Gorge Reservoir is the responsibility of the states of Utah and Wyoming as well as marina owners and visitors. Reclamation periodically samples for mussel veligers which are processed in the Reclamation Denver EcoLab. In 2025, Reclamation is piloting a new eDNA monitoring approach for mussels as well as 40 other high risk aquatic invasive species. The Utah Division of Wildlife Resources reports that mussel DNA has been detected at Flaming Gorge during sampling at least once, but the reservoir is not considered to be infested at this time since no adult or juvenile (veliger) mussels have been found in water samples sent for lab analyses. A rapid response plan (in case of suspected infestation) was signed and put in place in May 2021. Monitoring for invasive mussels continued in 2024 and shows no presence of veligers or adult mussels.

Navajo Unit

Navajo Dam was completed in 1963. The water stored behind Navajo Dam, pursuant to the CRSPA, provides a water supply for the Navajo Indian Irrigation Project near Farmington, New Mexico, and the Hammond Project, a CRSPA participating project. In addition, water for the Jicarilla Apache Nation is also available in Navajo Reservoir pursuant to the December 8, 1992, contract between the Jicarilla Apache Nation and the United States which was executed as part of the Jicarilla Apache Nation Water Rights Settlement Act of January 3, 1992 (P.L. 102-441). The water supply for the Navajo-Gallup Water Supply Project will also be provided in part by Navajo Reservoir, as was provided in the Omnibus Public Land Management Act of March 30, 2009 (P.L. 111-11).

Reclamation published the Navajo Reservoir Operations FEIS on April 20, 2006, and the ROD was signed on July 31, 2006. Reclamation's decision was to implement the preferred alternative identified in the 2006 ROD with reservoir releases ranging from 250 to 5,000 cfs. The preferred alternative, to the extent possible, implements criteria needed to assist in meeting flow recommendations for the endangered fish in the San Juan River, while assisting both current and future water development in the San Juan River Basin to proceed in compliance with the ESA and other state and federal laws. Navajo Dam is operated in accordance with the 2006 ROD.

Recreational Use

Recreation at Navajo Reservoir is managed by the states of Colorado and New Mexico through recreation leases with Reclamation. The Colorado portion of the reservoir, or Navajo State Park, is managed by Colorado Parks and Wildlife (CPW). The New Mexico portion of the reservoir, or Navajo Lake State Park, is managed by the New Mexico State Parks Division (New Mexico State Parks). New Mexico State Parks returned a large portion of the lands around Navajo Reservoir to Reclamation for management after a new statewide recreation lease agreement was signed in 2018. It will, however, continue boating patrols for enforcement of boating laws outside its formal boundary.

Invasive Mussel Control

Reclamation is working with both recreation managing entities to develop effective solutions to manage the spread of invasive mussels including educating the public and providing materials such as signs and brochures and contracting for private inspection and decontamination services in New Mexico. Colorado Parks and Wildlife is conducting boat inspections and has a portable boat wash and decontamination unit at Arboles, Colorado. Reclamation engaged the services of a private contractor in 2016 to assist the New Mexico Department of Game and Fish (NMDGF) with boat inspection and decontamination services at Navajo Reservoir. Reclamation continues to monitor Navajo Reservoir for mussel veligers and starting in 2025 aquatic invasive species eDNA.

Based on the results thus far, the designation of Navajo Reservoir was changed from undetected/negative to inconclusive in late 2021. Increased sampling occurred throughout 2022 for one full year after the initial positive tests. No additional positive detections were made from those samples. Per the Navajo Reservoir Incident Rapid Response Plan, Navajo Reservoir was downgraded from Inconclusive to Negative.

As a CRSP-Memorandum of Agreement (MOA) Basin Fund project, Reclamation is working on a redesign of a permanent boat inspection and decontamination station at the Pine Marina recreation area and a new permanent boat inspection and decontamination area at the Sims Mesa Marina recreation area at Navajo Lake State Park in New Mexico. Design drawings for the inspection and decontamination site are complete, however cost estimates now exceed the budget for construction. Reclamation is currently reviewing options for funding the project, including the possibility of additional funding through MOA. The preference is still to construct both sites in the same contract to save costs.

Wayne N. Aspinall Unit

The Wayne N. Aspinall Unit (Aspinall Unit) includes Blue Mesa, Morrow Point, and Crystal dams, reservoirs, and powerplants. Construction of the three Aspinall Unit dams was completed in 1976. The Aspinall Unit in Gunnison and Montrose counties, Colorado, on the Gunnison River upstream from Black Canyon of the

Gunnison National Park. At optimum operations, the generators at Blue Mesa, Morrow Point, and Crystal powerplants produces approximately 761,000,000 kilowatt-hours of energy annually.

Similar to Glen Canyon, Flaming Gorge, and Navajo dams, the Aspinall Unit is being evaluated to determine how operations can be modified to assist in the recovery of downstream endangered fish. Flow recommendations for endangered fish in the Gunnison River were completed in 2003. Reclamation published the Aspinall Unit Operations FEIS in February 2012. The preferred alternative provides operational guidance for the Aspinall Unit for specific downstream spring peak and duration flows that are dependent on forecasted inflow to the Aspinall Unit reservoirs. It also provides base flows outside of the spring runoff period. The U.S. Fish and Wildlife Service completed a programmatic biological opinion for the EIS which addresses proposed operation changes as well as coverage of existing water uses in the Gunnison Basin. The biological opinion also completes ESA compliance for the Dallas Creek and Dolores projects. The ROD was issued in May 2012.

Figure 20: Blue Mesa Dam and Powerplant.

Recreational Use

Recreation use for the Aspinall Unit is managed by the NPS as the Curecanti National Recreation Area (NRA). Visitation to the Curecanti National Recreation Area in 2024 had 980,899 visits While the visitation to Black Canyon of the Gunnison, located below Crystal Dam and adjacent to the Curecanti NRA, was estimated to be 335,862.

In 1965, the NPS entered into an agreement with Reclamation to construct and manage recreational facilities and to manage natural and cultural resources and

recreation on, and adjacent to, the three reservoirs. This area became known as the Curecanti NRA. The NRA is currently identified by an administrative boundary that has not been established by legislation.

Invasive Mussel Control

The State of Colorado, working in partnership with the NPS, has instituted an aggressive program to prevent the spread of quagga and zebra mussels into its waters, including the three Aspinall Unit reservoirs. All motorized and watercraft requiring a trailer to launch at Curecanti NRA are required to be inspected for invasive mussels and, if necessary, decontaminated. In addition to the mandatory inspection prior to launch, and for compliance with the State of Colorado's Aquatic Nuisance Species (ANS) protocols, all motorized watercraft leaving Blue Mesa, Morrow Point, or Crystal reservoirs will undergo a second inspection to verify the watercraft has been cleaned, drained, and dried. Reclamation is continuing to test for zebra or quagga mussels in mountain lakes and so far, has found no evidence of either mussels or veligers.

AQUATIC INVASIVE SPECIES CONTROL

Invasive species threaten the operation of CRSP facilities. An Upper Colorado Basin Invasive Mussel Response Plan was developed in 2010. The program focuses on four areas: monitoring and sampling, engineering solutions, maintenance techniques, and operational practices. Reclamation has also launched an extensive public outreach campaign to educate the public with radio and television spots as well as print advertisements in local tourism magazines. In 2021, a Regional Notification Protocol was completed describing who should be notified in the event of a positive aquatic invasive species (AIS) lab sample.

In 2018, Colorado's governor signed the Mussel-free Colorado Act, which requires that all boaters registering vessels in the State of Colorado purchase an ANS stamp. In addition, the Act increases existing penalties and imposes new penalties on several actions regarding invasive species violations.

In 2023, Reclamation's Western Colorado Area Office (WCAO) cost-share grant with Colorado Parks & Wildlife (CPW) ended. Currently, WCAO and CPW are working on a new grant utilizing authorization through Public Law 116-9 (Dingell Act or Fish & Wildlife Coordination Act) for ANS boat inspection and decontamination station construction at Crawford State Park.

In partnership with the Dolores Water Conservancy District, CPW (and as funding is available by the U.S. Forest Service), Reclamation contributed $30,000 toward McPhee Reservoir inspections and decontaminations. Reclamation is working with DWCD, DPW and the U.S. Forest Service on plans to update the inspection station for McPhee Reservoir. On Lake Nighthorse, within Durango City Limits,

Reclamation contributed approximately $500,000 in a cost share agreement with the City of Durango for a new AIS inspection and decontamination station. Lemon Reservoir remains closed to motorized boating.

In June 2023, U.S. Senator Michael Bennet from Colorado, along with U.S. Senator Steve Daines from Montana, introduced the "Stop the Spread of Invasive Mussels Act of 2023" into Congress. The bill strengthens prevention WID programs by providing the Reclamation explicit authority by providing authority for cost share to fund watercraft inspection and decontamination stations, provides all federal agencies who participate in the Aquatic Nuisance Species Task Force the same authorities to limit the movement of invasive species into and out of U.S. waters (eliminating barriers to mandatory exit inspections at infested water bodies such as Lake Powell and Lake Mead). CPW intends to utilize its resources as the required 25% match, if Congress passes the bill and appropriates funds for implementation in Colorado.

The state of New Mexico has a smaller aquatic invasive species program that provides public outreach and education, spot inspections, and decontaminations when needed. In 2022, Reclamation entered a new contract with Advenco to conduct boat inspections and decontaminations at Navajo Reservoir (New Mexico side) and Elephant Butte Reservoir in New Mexico. Both boat ramps on the New Mexico side of Navajo Reservoir are staffed by the contractor. CPW staffs the inspections on the Colorado side

The state of Utah continues to monitor park waters and, in conjunction with the NPS, has implemented mandatory boat inspections and decontaminations to minimize the spread of invasive mussels from Lake Powell and to manage park operations now that quagga mussels are present. The focus of this effort has shifted from prevention to containment and incorporates science and lessons learned from the Lake Mead National Recreation Area. In 2021 a private contractor worked with the State of Utah Division of Wildlife (DWR), with help in funding from Reclamation, constructed a dip tank to decontaminate boats on a trailer rather than using the hot water spray system. The dip tank reduces the time required for decontamination of a boat. This system was installed at Lake Powell at the State Line launch ramp near the Wahweap marina which is down lake near Glen Canyon Dam. The dip tank decontamination system was so positively accepted by the boating community, another dip tank is planned for construction up lake at Bullfrog in the future.

At Glen Canyon Dam, Reclamation employs a variety of methods to prevent the continued population growth of these invasive mussels at our facilities, including chemical control, filtration, and the application of eco-friendly protective coatings to submerged surfaces. Additionally, mechanical measures have been employed over the last decade, with practices such as jetting, scraping, and cleaning playing a central role in keeping our infrastructure free from Quagga mussels. For long-term effectiveness, Reclamation is implementing UV technology that involves

installing two UV lights for each of Glen Canyon's eight generating units. The specially designed lights do not harm mature mussels but instead serve as a preventive measure, stopping further growth of veliger's, the microscopic larvae responsible for their reproduction. Installation of the UV lights will happen over the next three years and will align with annual maintenance, aiming to significantly improve long-term system maintenance and minimize operational disruptions. The multifaceted approach also includes new filter/strainer baskets to capture shell debris.

Smallmouth bass and other nonnative fish inhabit the upper part of the water column of Lake Powell. Juvenile "young of year," smallmouth bass were found in the Colorado River below Glen Canyon Dam in June 2022, in a shallow slough area approximately 3.5 miles downriver (known as the –12 mile slough). The –12 mile slough was chemically treated in September 2022. In 2023, juvenile smallmouth bass were found again in larger numbers (indicating successful spawning) in the -12 mile slough, underscoring the urgency of this emergent issue. The National Park Service chemically treated the area again in August 2023. Reclamation and its partners have already begun efforts that could lead to additional protections at Glen Canyon Dam, including possible implementation of fish exclusions, slough restoration, and temperature control devices. In 2024, Reclamation completed a value planning study that identified possible solutions that address both temperature issues and fish exclusion designed to protect federally listed fish species in the Grand Canyon. Reclamation in coordination with Glen Canyon National Recreation Area, began habitat modification of the –12 mile slough that would make the area unsuitable for nonnative invasive fish including smallmouth bass to spawn. The work is expected to be completed by late spring 2025.

CRSP POWER GENERATION

The CRSP is one of Reclamation's key hydropower producing projects. The CRSP's combined installed capacity is over 1,800 MW with Glen Canyon Dam accounting for 1,320 MW alone. On average, the CRSP generates 4.8 billion kilowatt-hours per year, which accounts for about 15% of Reclamation's total annual production of approximately 40 billion kilowatt-hours. The CRSP supplies power to nearly six million people living in Arizona, Colorado, Nebraska, Nevada, New Mexico, Utah, and Wyoming.

Figure 21: Morrow Point powerplant

During fiscal years 2023 and 2024, generation at CRSP powerplants amounted to 4.30 and 4.04 billion kilowatt-hours, respectively. The major portion for those same years, 3.28 and 2.78 billion kilowatt-hours respectively, was produced at Glen Canyon Dam. The balance was produced at Flaming Gorge, Blue Mesa, Morrow Point, Crystal, Fontenelle, McPhee, and Towaoc powerplants. These amounts are shown in Table 10.

TABLE 10. Gross Generation (Kilowatt-Hours) and Percentage of Change for Fiscal Years 2023 and 2024

Powerplant	Fiscal Year 2023	Fiscal Year 2024	% Change
Glen Canyon	3,275,337,000	2,783,605,789	-15.0
Flaming Gorge	414,053,500	458,884,000	10.8
Blue Mesa	146,268,580	241,939,660	65.4
Morrow Point	264,703,000	327,412,548	23.7
Crystal	125,191,120	154,001,000	23.0
Fontenelle	53,829,000	60,776,000	12.9
McPhee	4,404,944	3,058,673	-30.5423
Towaoc	15,970,735	10,259,496	-35.8

Total	**4,299,757,879**	**4,039,937,166**	**-6.0**

CRSP Facility Upgrades

Major replacements at CRSP facilities are highlighted in the following paragraphs. This work will help ensure that CRSP facilities throughout the Colorado River Basin remain reliable and efficient for many years to come.

Glen Canyon Dam and Powerplant

Glen Canyon Dam River Outlet Works Relining will be completed in FY 2025. The estimated cost for the work is $9 million. This project will remove the original lining and apply a new lining through the length of the pipes.

Crane Rehabilitation will refurbish the power plant and dam cranes. The estimated cost of this project is $8.5 million. A contact award is estimated for late FY 2025 or early FY 2026.

Blue Mesa Powerplant

Butterfly Valve –A contract was awarded for the replacement of the butterfly valve at Blue Mesa in September 2024. Preparatory work has begun with the first plant outage scheduled for October 2025.

The fabrication will occur in FY 2025 followed by installation in FY2026-2027 at a total cost estimate of $30 million. The current age of the Butterfly Valve is 56 years old. Benefits of replacing the Butterfly Valves are enabling maintenance to be performed on wicket gates and turbine as well as reduced sump pump cycling during outages.

Flaming Gorge Powerplant

Flaming Gorge's Station Service Switchgear will be replaced in FY 2025 at an estimated cost of $4.2 million. This power distribution equipment powers all the ancillary equipment within the powerplant and dam such as pumps, computers, compressors, gates, and lighting.

AUTHORIZED PARTICIPATING PROJECTS

Twenty-two participating projects were originally authorized by Congress between 1956 and 1968. Eleven were authorized by the CRSP Act (CRSPA) of April 11, 1956 (70 Stat. 105), one was authorized in the 1956 Act by terms of its authorizing Act of June 28, 1949 (63 Stat. 277), two were authorized by the Act of June 13, 1962 (76 Stat. 96), three were authorized by the Act of September 2, 1964 (78 Stat. 852), and five were authorized by the Act of September 30, 1968 (82 Stat. 886). Of the 22 originally authorized participating projects, ten are in Colorado, two in New

Mexico, two in Utah, three in Wyoming, three in both Colorado and New Mexico, one in both Colorado and Wyoming, and one in both Utah and Wyoming. In the 1968 Colorado River Basin Project Act, the Pine River Extension Project was deleted, leaving 21 participating projects authorized by Congress. On March 30, 2009, the Omnibus Public Land Management Act (123 Stat. 991) amended the CRSPA to include the Navajo-Gallup Water Supply Project in New Mexico as a participating project, increasing the number back to 22 participating projects currently authorized by Congress.

Participating projects develop, or would develop, water in the Upper Colorado River system for irrigation, municipal and industrial uses, and other purposes, and participate in the use of revenues from the Upper Colorado River Basin Fund to help repay the costs of irrigation features that are beyond the ability of the water users to repay. The Basin Fund receives revenues from hydropower and water service sales.

To date, 17 of the currently authorized 23 participating projects have either been completed, in the process of completion, or deauthorized. The five remaining participating projects were deemed infeasible or economically unjustified and were never constructed. Table 11 shows the seventeen participating projects that have been completed or are in the process of completion.

The 11 participating projects originally authorized in 1956 are:

1. Central Utah (Initial Phase), Utah
2. Emery County, Utah
3. Florida, Colorado
4. Hammond, New Mexico
5. La Barge, Wyoming
6. Lyman, Utah and Wyoming
7. Paonia, Colorado (works additional to existing project)
8. Pine River Extension, Colorado and New Mexico [Deleted]
9. Seedskadee, Wyoming
10. Silt, Colorado
11. Smith Fork, Colorado
12. In the 1956 Act, the Eden Project in Wyoming, by terms of its authorizing Act of June 28, 1949, became financially related to the CRSP as a participating project.

In 1962, authorizing legislation named the following two as participating projects:

13. Navajo Indian Irrigation, New Mexico (being constructed for the Bureau of Indian Affairs by Reclamation)
14. San Juan-Chama, Colorado and New Mexico

In 1964, authorizing legislation named an additional three as participating projects:

15. Bostwick Park, Colorado
16. Fruitland Mesa, Colorado

17. Savery-Pot Hook, Colorado and Wyoming; however, this was found to be infeasible and was not constructed

The CRBPA of September 30, 1968, authorized five additional projects as participating projects, but deleted the Pine River Extension Project as a participating project:

18. Animas-La Plata, Colorado and New Mexico
19. Dallas Creek, Colorado
20. Dolores, Colorado
21. San Miguel, Colorado
22. West Divide, Colorado

The Omnibus Public Land Management Act of 2009 amended the CRSPA of 1956 to include the following as a participating project:

23. Navajo-Gallup Water Supply, New Mexico

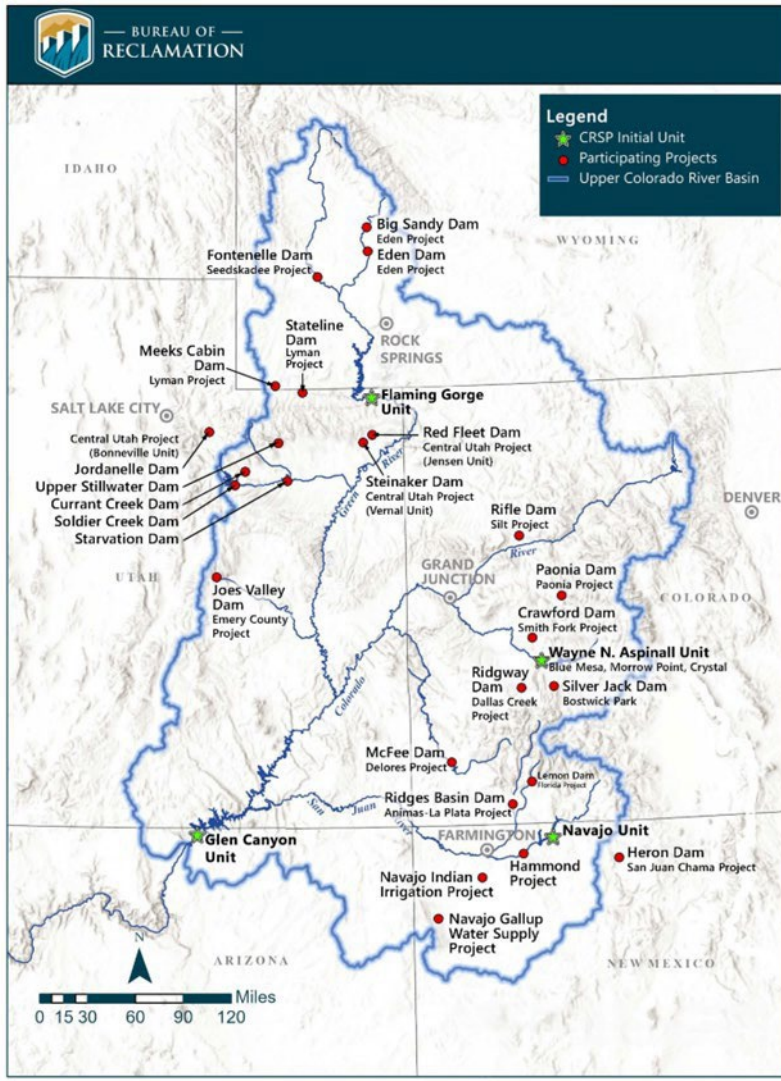


FIGURE 12. Upper Colorado River Basin – Map of CRSP Projects

TABLE 11. CRSP Participating Projects
Completed or in the Process of Completion

#	Project	State(s)	Dam	Year Completed
1.	Eden	Wyoming	Big Sandy	1952
-----	Eden	Wyoming	Eden	1959
2.	Central Utah (Vernal Unit)	Utah	Steinaker	1962
3.	Hammond	New Mexico	---	1962
4.	Paonia	Colorado	Paonia	1962
5.	Smith Fork	Colorado	Crawford	1962
6.	Florida	Colorado	Lemon	1963
7.	Emery County	Utah	Joes Valley	1966
8.	Silt	Colorado	Rifle Gap	1966
9.	Seedskadee	Wyoming	Fontenelle	1968
---	*Central Utah (Bonneville Unit)	Utah	Starvation	1970
10.	Bostwick Park	Colorado	Silver Jack	1971
11.	Lyman	Utah and Wyoming	Meeks Cabin	1971
12.	San Juan-Chama	Colorado and New Mexico	Heron	1971
---	*Central Utah (Bonneville Unit)	Utah	Soldier Creek	1973
---	*Central Utah (Bonneville Unit)	Utah	Currant Creek	1975
---	Lyman	Utah and Wyoming	Stateline	1979
---	*Central Utah (Jensen Unit)	Utah	Red Fleet	1980
---	*Central Utah (Bonneville Unit)	Utah	Upper Stillwater	1987
13.	Dallas Creek	Colorado	Ridgway	1991

---	*Central Utah (Bonneville Unit)	Utah	Jordanelle	1993
14.	Dolores	Colorado	McPhee	1998
15.	*Animas-La Plata	Colorado and New Mexico	Ridges Basin	2011
16.	*Navajo Indian Irrigation	New Mexico	---	Under Construction
17.	*Navajo-Gallup Water Supply	New Mexico	---	Under Construction
*In the process of completion.				

The present status of construction, investigation, and recreational facilities for the 23 authorized CRSP participating projects is as follows:

Colorado

Bostwick Park Project

The Bostwick Park Project is located in west-central Colorado near the city of Montrose. The project develops flows of Cimarron Creek, a tributary of the Gunnison River, for irrigation and for benefits to sport fishing and recreation. A full and supplemental supply of irrigation water is available for 6,100 acres of land. Silver Jack Dam (completed in 1971) is located on Cimarron Creek about 20 miles above the junction with the Gunnison River. Project water stored in Silver Jack Reservoir is released to Cimarron Creek. The releases, along with usable natural flows, are diverted from the creek into the existing Cimarron Canal 2.5 miles below the dam and conveyed 23 miles to the vicinity of the project land. The U.S. Forest Service developed recreation facilities under a cooperative arrangement with Reclamation. Facilities include access roads, campgrounds (60 units in three loops), two group areas, picnicking facilities, restrooms, a boat dock, trails, fences, landscaping, and an administration site. At 8,900 feet in elevation, use is seasonal. The reservoir is managed as a non-motorized boating lake with three species of trout. Access for anglers is fairly easy at designated access points around the 293-acre reservoir.

Dallas Creek Project

The Dallas Creek Project is located on the Uncompahgre River in west-central Colorado. The area served by the project comprises most of the Uncompahgre River Basin and includes lands in Montrose, Delta, and Ouray counties. Ridgway Dam and Reservoir, the primary features of the project, are located on the Uncompahgre River a few miles north of the town of Ridgway.

Block notice number one was issued for the Dallas Creek Project on May 31, 1989, covering all municipal and industrial water use. The notice involved 28,100 acre-feet of water. Repayment on that notice began in 1990. Block notice number two was issued on March 21, 1990. The notice included all irrigation waters for the project, involving 11,200 acre-feet. The notice was issued to Tri-County Water Conservancy District. The first payment under the repayment contract was made in February 1993 and will continue until February 2042.

A 40-year lease of power privilege between Tri-County Water Conservation District and the United States was signed on February 6, 2012, allowing for the construction and operation of a hydropower facility with a capacity of seven MWs, generating approximately 22,000 Megawatt hours per year. Construction of the hydropower facility was completed in early 2014 and operation of the powerplant began in April 2014.

Recreation at Ridgway Reservoir is managed by CPW under an agreement with Reclamation. There are numerous picnicking and campsites available including miles of trails around the reservoir and downstream of Ridgway Dam. The park has become so popular that all the campsites were put on a reservation system beginning with the 2019 recreation season. Reclamation and Ridgway State Park have implemented a seasonal closure of the area east of Highway 550 to public access to protect wintering big game. Fishing at Ridgway is good and CPW, to protect native fish downstream, encourages anglers to catch as many smallmouth bass as they can since the species was illegally stocked in the early 2000s. The WCAO completed constructions of a fish screen around the reservoir's gloryhole spillway in January 2022. The fish screen will prevent the invasive smallmouth bass from entering the river downstream.

Reclamation is working closely with CPW to develop effective solutions to manage the spread of invasive mussels including educating the public and providing materials such as signs and brochures. CPW is conducting mandatory boat inspections and decontaminations at Ridgway and boat ramps are closed to trailered boats at the end of September of each year. Reclamation and CPW designed a permanent boat inspection and decontamination area at the reservoir.

Reclamation engineers and surveyors created a new design for this station in 2020 and 2021 and awarded the construction contract with work completed in 2023. CPW has replaced their standard hot water decontamination units with on-demand hot water units in 2021 and installed additional propane and electricity at the site to accommodate the on-demand units. These units will be more consistent and reliable in supplying the needed hot water to the units. They are also catching and recycling all water used at the decontamination station. Funded through a grant agreement between CPW and Reclamation, all motorized and trailered boats are required to be inspected on site for ANS and decontamination, if necessary, before launching from the boat ramp.

Dolores Project

The Dolores Project, located in the Dolores and San Juan River basins in southwestern Colorado, uses water from the Dolores River for irrigation, municipal and industrial use, recreation, fish and wildlife, and production of hydroelectric power. Primary storage of Dolores River flows for all project purposes is provided by McPhee Reservoir, formed by McPhee Dam and Great Cut Dike. Dolores Project construction began in 1976. By fiscal year 1995, all primary project facilities were completed and in operation. In 1996, Reclamation signed petitions allocating the last approximately 1,800 acre-feet of full-service irrigation water to full-service users. Reclamation substantially completed construction of the Dolores Project in fiscal year 1998. The final cost allocation for the project was completed in October 2000 and approved by the Upper Colorado Basin Regional Director by memorandum dated January 25, 2001.

To mitigate construction of salinity control modifications to the Upper Hermana, Lone Pine, and Rocky Ford Laterals (parts of the Dolores Project), 55 acres of new wetlands were developed at the Lone Dome wetlands area below McPhee Dam. To complete the remaining 20 acres of mitigation, Reclamation developed Simon Draw wetlands near the Totten Reservoir area. A long-term management agreement between Reclamation and CPW for operation and maintenance of the Lone Dome wetlands area is in place. Reclamation's Western Colorado Area Office operates and maintains Simon Draw wetlands.

Hydroelectric power generation is a component of the Dolores Project with McPhee and Towaoc Canal powerplants. McPhee Powerplant is located at the downstream toe of McPhee Dam along the left abutment with an installed capacity of 1.3 MWs. Towaoc Canal Powerplant is located on the Towaoc Canal, five miles north of Cortez, Colorado, in Montezuma County with an installed capacity of 11.5 MWs.

Recreation at McPhee Reservoir is under the jurisdiction of the U.S. Forest Service through an agreement with Reclamation, and through legislation that expanded the boundary of the San Juan National Forest to include the reservoir. The reservoir has 50 miles of shoreline and two recreation complexes with campgrounds, day-use areas, and boat launch ramps. There is also a marina concession to serve visitors.

The Lone Dome Recreation Area is located below McPhee Dam and includes twelve miles of public access to the Dolores River. This area is comprised of lands administered by the U.S. Forest Service, Bureau of Land Management (BLM), and CPW. Senate Bill 4542 was introduced by Senator Bennet (D-CO) in July 2022 to establish the Dolores River National Conservation Area and the Dolores River Special Management Area below McPhee Dam to protect private water rights in the state, and for other purposes, including releasing the areas from further study for potential addition to the Wild and Scenic Rivers System. The Senate Energy

and Natural Resources Committee held a hearing for the bill on December 1, 2022. An identical bill (H.R. 8601) was introduced to the House of Representatives at the same time and was referred to the House Committee on Natural Resources.

Reclamation is working closely with partners including the Dolores Water Conservancy District, CPW, and the Forest Service, and was able to institute a funding agreement for boat inspections and a decontamination program to prevent invasive mussels from invading the reservoir. Because of the reservoir's proximity to Lake Powell, boat launch ramp closure hours were implemented in 2017 and locked gates were installed for times when boat inspections were not available.

Florida Project

Lemon Dam is the principal feature of the Florida Project. The dam, completed in 1963, is in southwestern Colorado on the Florida River, approximately fourteen miles northeast of the City of Durango in La Plata County. Flows in the Florida River are stored in the reservoir formed by the dam, and regulated releases can provide supplemental irrigation water for 19,450 acres. In addition to the construction of Lemon Dam, Reclamation work included rebuilding the Florida Farmers Diversion Dam, enlarging 3.9 miles of the Florida Farmers Ditch to its junction with the Florida Canal, enlarging 1.8 miles of the Florida Canal, and building a new lateral system to serve about 3,360 acres of land on the southwest portion of Florida Mesa. Project funds were advanced to the Florida Water Conservancy District to rehabilitate, enlarge, and extend portions of the Florida Farmers Ditch and Florida Canal distribution systems that serve remaining lands on Florida Mesa. The 1,190 acres of project land located in the Florida River Valley will continue to be served by numerous small ditches without the expenditure of project funds.

Lemon Powerplant, completed in 1989, has a capacity of 0.12 MWs. The powerplant was constructed and is operated by the Florida Water Conservancy District under a lease of power privilege contract.

A conversion contract for 2,500 acre-feet of Florida Project water to be available for municipal and industrial purposes was negotiated and executed in early 2014. A similar contract for 114 acre-feet was executed in 2009, which made water originally tied to the land inundated by the reservoir available for augmentation purposes.

Lemon Reservoir provides important recreation and fish and wildlife benefits; however, its primary purpose is to provide irrigation water and flood control. Recreation at Lemon Reservoir is under the jurisdiction of the U.S. Forest Service through an agreement with Reclamation. This is a high-elevation reservoir (8,500 feet) with seasonal use. The Miller Creek Campground has twelve campsites, restrooms, potable water, boat launch ramp and parking area, and a day-use picnic

area The Upper Lemon Day-Use Area provides access for fishing and hiking and includes restrooms and a parking area.

Reclamation partnered with the U.S. Forest Service, La Plata County, and the Florida Water Conservancy District to close the boat ramp at Lemon Reservoir to motorized boating in 2017 and the prohibition on motorized boating remains in place. The reservoir remains open to non-motorized boats.

Fruitland Mesa Project

The Fruitland Mesa Project was found to be infeasible and was not constructed.

Paonia Project

The Paonia Project, located in west-central Colorado, provides full and supplemental irrigation water supplies for 15,300 acres of land in the vicinity of Paonia and Hotchkiss. Project construction includes Paonia Dam and Reservoir and enlargement and extension of Fire Mountain Canal. Paonia Dam controls and regulates the runoff of Muddy Creek, a tributary of the North Fork of the Gunnison River.

Recreation at Paonia Reservoir is managed by Colorado Parks and Wildlife under an agreement with Reclamation. The original recreation facilities were built in 1963 and CPW assumed management in 1965. There are two campgrounds, a picnic area, and boat launching facilities. CPW, in coordination with Reclamation, converted the Anthracite Day Use area at the base of the dam to a small campground that has five RV full hookup sites and four tent sites. CPW completed an overhaul of the water well to provide clean drinking water to both the campground and CPW shop facilities. Recreational attractions include the landscape surrounding the park, waterskiing, camping, and northern pike fishing.

Reclamation is working closely with CPW to develop effective solutions to manage the spread of invasive mussels including educating the public and providing materials such as signs and brochures. Funded through a grant agreement between CPW and Reclamation, all motorized and trailered boats are required to be inspected on site for ANS and decontamination, if necessary, before launching from the boat ramp.

San Miguel Project

The San Miguel Project was found to be economically unjustified and was not constructed.

Silt Project

The Silt Project is located in west-central Colorado near the towns of Rifle and Silt. The project stores the flows of Rifle Creek and pumps water from the Colorado River to supply irrigation water for approximately 7,000 acres of land. Principal

features of the project are Rifle Gap Dam and Reservoir, a pumping plant, and a lateral system.

Recreation at Rifle Gap Reservoir is managed by CPW under an agreement with Reclamation. Recreation facilities include numerous campgrounds, picnic sites, a boat ramp, group use area, restrooms, and parking areas. Recreation activities include motorized water sports, swimming, sailing, windsurfing, and fishing. Although Rifle Gap is a small reservoir, it is a popular one with five camp loops and 89 campsites; several campsites are accessible to persons with disabilities.

Reclamation is working closely with CPW to develop effective solutions to manage the spread of invasive mussels including educating the public and providing materials such as signs and brochures. Funded through a grant agreement between CPW and Reclamation, all motorized and trailered boats are required to be inspected on site for ANS and decontamination, if necessary, before launching from the boat ramp.

Smith Fork Project

The Smith Fork Project, located about 30 miles southeast of Delta, Colorado, supplements the irrigation water supply for approximately 8,200 acres in Delta and Montrose counties and provides a full water supply for 1,423 acres of land previously not irrigated. Constructed features of the project include Crawford Dam and Reservoir, Smith Fork Diversion Dam, Smith Fork Feeder Canal, Aspen Canal, Clipper Canal, and recreation facilities. Recreation at Crawford Reservoir is managed by CPW under an agreement with Reclamation. Boating, scuba diving, water skiing, jet skiing, windsurfing, swimming, fishing, and camping are some of the offerings at the park. There are two campgrounds with 66 sites, a group day-use area, and 30 sites for day use; several campsites are accessible to persons with disabilities. The Clear Fork Campground was recently expanded, and the traditional tent sites were converted to 15 new RV full hookup sites with power, water, and sewage at each site, while still preserving 6-day use picnic sites. The camper services building was also upgraded with more showers and modern amenities. There are also plans to add a new playground area in the campground to accommodate young visitors.

Reclamation is working closely with CPW to develop effective solutions to manage the spread of invasive mussels including educating the public and providing materials such as signs and brochures.

West Divide Project

The West Divide Project was found to be economically unjustified and was not constructed.

New Mexico

Hammond Project

The Hammond Project is in northwestern New Mexico along the southern bank of the San Juan River and opposite the towns of Blanco, Bloomfield, and Farmington, New Mexico. The project provides an irrigation supply for 3,933 acres. Major project works consist of the Hammond Diversion Dam on the San Juan River (completed in 1962), the Main Gravity Canal, a hydraulic-turbine-driven pumping plant and an auxiliary pumping plant, three major laterals, minor distribution laterals, and the drainage system. Most of the irrigation supply is obtained from direct diversions of the natural streamflow of the San Juan River. When necessary, these flows are supplemented by storage releases from Navajo Reservoir, a major feature of the CRSP. Water is diverted from the river by the Hammond Diversion Dam and turned into the 27.4-mile-long Main Canal. Major diversions from the canal are made by the East and West Highline laterals, which are served by the Hammond Pumping Plant, and the Gravity Extension lateral. Small diversions are made by minor laterals.

Navajo-Gallup Water Supply Project

The Navajo-Gallup Water Supply Project (NGWSP) was authorized for construction by the Omnibus Public Land Management Act of 2009 (P.L. 111-11) and is the cornerstone of the Navajo Nation water rights settlement in the San Juan River Basin in New Mexico. When completed, the Navajo-Gallup Water Supply Project will consist of two water treatment plants, 300 miles of pipeline, 19 pumping plants, and numerous water regulation and storage facilities. The project will convey a reliable municipal and industrial water supply to the eastern section of the Navajo Nation; the southwestern part of the Jicarilla Apache Nation; and the City of Gallup, New Mexico, from diversions from the San Juan River Basin in northern New Mexico and via two separate pipeline laterals – the San Juan Lateral (SJL) and the Cutter Lateral. The project will provide a drinking water supply designed to serve the region for at least a 40-year time horizon once completed and is envisioned to be a catalyst for spurring economic growth and development and improving living conditions for the project service area.

Reclamation is the lead agency in the design and construction of the project, but in order to help meet the Congressionally mandated completion date, the Navajo Nation, the City of Gallup, and the Indian Health Service are responsible for design and construction of certain features of the project via financial assistance and interagency agreements with Reclamation.

The Project consists of two primary branches, the San Juan Lateral (west) and Cutter Lateral (east). Construction on the Project began in 2012 just north of the city of Gallup on Reach 12A of the San Juan Lateral. Construction on the San Juan Lateral continues with the San Juan Lateral estimated to be 60% complete and is expected to begin providing water to local communities in late-2028.

In 2020, water deliveries to Navajo communities began on the Cutter Lateral. Deliveries to the Jicarilla Apache Nation from the Cutter Lateral began in the fall 2024. Construction on the San Juan Lateral has been underway since 2012 and now has approximately 100 miles of transmission line pipe installed and 5 pumping plants either complete or under contract. Design and construction have also begun on the San Juan Lateral Water Treatment Plant and water deliveries are expected to begin in 2028.

Following the process stipulated in PL 111-11, the signatory parties to the Settlement (Navajo Nation, State of New Mexico and the United States via the Secretary of the Interior) agreed to extend the completion date of the Navajo Gallup Water Supply Project from December 2024 to December 2029 to analyze, acquire, and incorporate water storage and intake features from the San Juan Generating Station into the NGWSP that would provide substantial benefits to the project. Formal extension was issued by the Secretary of the Interior on September 20, 2024.

San Juan Lateral Construction:

In 2023, Reclamation acquired an existing intake structure and reservoir previously associated with the San Juan Generating Station. The reservoir has since been renamed the Frank Chee Willetto Reservoir and will be used to store water for use through the San Juan Lateral. A new pumping plant at the intake will be constructed to convey water to the Frank Chee Willetto reservoir and then that water will be pumped to the San Juan Lateral Water Treatment Plant through an additional pumping plant on Reach 2. Modifications to the Frank Chee Willetto Reservoir are planned to increase functionality and reduce operational complexity.

Once treated, the water will be carried downstream to the thousands of homes in communities along U.S. 491, Shiprock, NM, Crownpoint, NM and the City of Gallup, NM. Connections to and distribution of treated water into communities from the San Juan Lateral and sublaterals will be completed by the Navajo Nation through the Navajo Tribal Utility Authority.

Construction of the sublateral to the community of Coyote Canyon (Reach 10.1.1) began in February 2025 and is expected to be completed in 2026. Construction of the sublateral extending to Crownpoint, NM, (Reaches 10.1 – 10.3) is expected to begin in 2026.

The Codetalker sublateral (Reaches 12.1 and 12.2) has been installed parallel to NM Route 260 from Yah-te-Hey Junction to the Arizona border. This sublateral will provide water to Window Rock, AZ, through an additional section of pipeline that remains to be completed (Reach 12.3).

Construction of the Cutter Lateral is complete except for Reach 24.1 Lybrook. Construction is anticipated to begin on that final section in 2027.

Navajo Indian Irrigation Project

The Navajo Indian Irrigation Project (NIIP) was authorized in 1962 by P.L. 87-483, with amendments, to develop the necessary infrastructure to deliver San Juan River water to not more than 110,630 acres of farmland in the northeastern part of the Navajo Reservation near Farmington, New Mexico. In a 1962 Memorandum of Agreement, which defined the roles and responsibilities of the Bureau of Indian Affairs (BIA) and Reclamation, the BIA was required to provide funding from its budget appropriation and Reclamation was designated to design and construct the project.

The project has been under construction for over 60 years and is now approximately 75% complete with many of the project features now requiring rehabilitation. The primary issue affecting NIIP completion is insufficient construction funding, which has been inconsistent throughout the history of the project and has ranged from a peak of $28.9 million in 1976 to $0 in 1984 and 1986. Funding levels have remained static at approximately $3 million per year since 2011.

As of fiscal year 2019, On-Farm Development by BIA is completed, and Block 9, Stage 1, two Pumping Plant and associated laterals are providing project water to approximately 3,600 acres. All work recommended from the 2018 Modernization Study has been completed with the exception of the completion of Standard Operation Completion manuals.

Utah

Central Utah Project

The Central Utah Project (CUP), located in the central and east central part of Utah, was constructed in part by Reclamation and is now being completed by the Central Utah Water Conservancy District in Orem, Utah, the local project sponsor, under the authority of the Central Utah Project Completion Act (CUPCA) of 1992. It is the largest water resources development program ever undertaken in the State of Utah. The CUP provides water for irrigation and municipal and industrial uses. Benefits include recreation, fish and wildlife, flood control, water conservation, water quality control, hydropower generation, and area development.

The Initial Phase, authorized in 1964, originally consisted of four units: Bonneville, Jensen, Upalco, and Vernal. An Ultimate Phase consisted of the Ute Indian Unit. A sixth unit; the Uintah Unit, was authorized by separate legislation in 1968. The largest of the six units is the Bonneville Unit which involves the diversion of water from the Uintah Basin, a part of the Colorado River Basin, to the Great Basin, with associated resource developments in both basins. The other units – Jensen, Uintah,

Upalco, Ute Indian, and Vernal – were intended to provide for local development in the Uintah Basin.

Of the original six units Bonneville is the only remaining active unit. The Jensen and Vernal Units are completed. The Uintah and Upalco units were replaced and deauthorized. The Ute Indian Unit was deauthorized by Congress in the CUPCA.

Bonneville Unit

The completed Bonneville Unit will deliver a permanent supply of 42,000 acre-feet of irrigation water and 157,750 acre-feet of municipal and industrial water. A key feature of the Bonneville Unit is the trans-basin diversion of 101,900 acre-feet (annual average) of water from the Uintah Basin to the Wasatch Front (Utah County cities and the Salt Lake City metropolitan area).

Central Utah Project Completion Act of 1992

Legislation enacted in 1992 (P.L. 102-575, CUPCA), significantly reformed implementation of the CUP. Among many changes, the Act increased the ceiling to allow completion of the Bonneville Unit of the CUP, authorized new portions and deauthorized old portions of the original plan and provided the Ute Indian Rights Settlement. The legislation provides that the project's local sponsor, the Central Utah Water Conservancy District (District), will plan and construct the remaining CUP-Bonneville Unit features; the Utah Reclamation Mitigation and Conservation Commission, an independent federal commission created under CUPCA, will complete the associated fish and wildlife mitigation; the Secretary will oversee implementation of CUPCA; and the District and/or Department of the Interior may contract with Reclamation for technical services. The Department of the Interior's CUPCA Office and the District completed a Definite Plan Report in 2004 that will ensure that the Bonneville Unit is completed under the remaining ceiling.

Utah Lake Drainage Basin Water Delivery System (Utah Lake System)

The final component of the Bonneville Unit to be constructed is the Utah Lake System. The Department of the Interior published the Utah Lake System FEIS on September 30, 2004, and on December 22, 2004, the Assistant Secretary for Water and Science signed the ROD. Construction began in 2007 and as of 2022, 43 miles of large diameter pipeline have been constructed with 4 miles remaining to be constructed.

Hydroelectric Power Generation

In 2005, the Department of the Interior selected the District and Heber Light & Power as joint lessees for power development at Jordanelle Dam. Construction of the 12-megawatt facility began in 2006, and the hydropower facility, which has been certified by the Low Impact Hydropower Institute, began generating power on July 1, 2008.

The Department of the Interior, the District, Reclamation, and Western Area Power Administration partnered to implement the Olmsted Hydroelectric Powerplant Replacement Project. Completed in September 2018, this project replaced a 100-year-old facility, provides 13 megawatts of capacity, and protects CUP water rights. Two hydroelectric power generation facilities are planned for construction under the Utah Lake System. These facilities will have a combined capacity of 50 megawatts.

Reservoirs and High Mountain Lakes.

The Bonneville Unit includes five reservoirs constructed by Reclamation as storage facilities for project irrigation, municipal and industrial storage, and recreational use. The five reservoirs are Jordanelle, Strawberry, Starvation, Currant Creek, and Upper Stillwater. In addition, three high mountain lakes, Washington Lake, Lost Lake, and Trial Lake, were reconstructed to provide storage in conjunction with the municipal and industrial system.

Jordanelle Reservoir is the newest reservoir with recreation facilities completed in 1998. Recreation and public use are managed by the Utah Division of Parks and Recreation under an agreement with Reclamation. There are two main developed recreation areas: Hailstone and Rock Cliff. Hailstone is a large, developed campground and day-use area located on the west side of the reservoir. Rock Cliff is located on the southeast side of the reservoir and offers a quieter experience with walk-in campgrounds; however, the area will be redeveloped and expanded to accommodate more visitors. Ross Creek, more primitive in nature, on the northeast end of the lake features access to the perimeter trail, parking lot with vault toilets, and a nonmotorized boat launch for hand-carried craft such as kayaks and canoes. This area, too, will be expanded to accommodate the increasing number of users at this popular reservoir near the most heavily populated region of the State. Reclamation, Utah State Parks, and the Jordanelle Special Service District are working through water and wastewater issues currently. Strawberry Reservoir was enlarged in 1974 under authority of the CRSPA of 1956 (before the enactment of CUPCA). Soldier Creek Dam, completed in 1973, expanded the capacity of Strawberry Reservoir from 283,000 acre-feet to a maximum capacity of 1,106,500 acre-feet and a total surface area of 17,163 acres. The original Strawberry Dam, constructed by Reclamation in 1922, was deliberately breached in 1985. As part of Reclamation's commitment to provide recreation opportunities, new facilities were built. There are four main developed areas: Strawberry Bay, Soldier Creek, Renegade Point, and Aspen Grove. Recreation management is under the jurisdiction of the U.S. Forest Service.

Starvation Reservoir, the first Bonneville Unit facility to be constructed, is a large reservoir on the Strawberry River in the Uintah Basin. The reservoir, filled by surplus winter and spring flows from the Duchesne and Strawberry rivers, is large enough for all water sports, and has a state park with a campground. Starvation State Park was established in 1972, two years after construction of Starvation Dam.

In 2019, the park was rededicated in memory of Fred Hayes, who was the director of the Utah Division of Parks and Recreation from 2012 until his death in 2018. It is now known as Fred Hayes State Park at Starvation. Mr. Hayes began his career with Utah State Parks in 1982 as a seasonal ranger at Starvation.

Currant Creek Reservoir is a high elevation lake (7,680 feet) with a mixed open and timbered setting. Development began in 1977 with construction of Currant Creek Dam. Currant Creek Reservoir finished filling in 1982. The reservoir shoreline is 85% under the jurisdiction of the U.S. Forest Service while the remaining 15% is private with restricted access. Recreation management at Currant Creek is under the jurisdiction of the U.S. Forest Service, Uinta National Forest.

Upper Stillwater Reservoir is another high mountain reservoir that has one main campground. The reservoir serves as a popular trailhead into the High Uintas Wilderness with the boundary located only one mile north of the dam near the high-water line for the reservoir. Recreation management is under the jurisdiction of the U.S. Forest Service, Ashley National Forest.

The managed recreation season at Upper Stillwater Reservoir is from June through September with high use on holidays and weekends. Boating use is restricted to non-motorized craft.

High Mountain Lakes include Washington Lake, Trial Lake, and Lost Lake with a total reservoir capacity of 5,788 acre-feet. Located in the Wasatch Cache National Forest, these lakes were reconstructed to provide irrigation water for Summit County, Utah. Recreation at the lakes is managed by the U.S. Forest Service and allows non-motorized boating and fishing. The lakes are at an elevation of over 9,500 feet and are only accessible during the summer months. The CUPCA also authorized the stabilization of additional high mountain lakes. As part of the Uintah Basin Replacement Project, the Utah Reclamation Mitigation and Conservation Commission stabilized 13 lakes. Authorization remains for additional lake stabilization in the Uinta Mountains.

Jensen Unit

The Jensen Unit in northeastern Utah provides about 5,300 acre-feet of water for municipal and industrial uses and 4,600 acre-feet for irrigation. Key project features include Red Fleet Dam and Reservoir, Tyzack Aqueduct Reach 1, and Tyzack Aqueduct Reach 2. Recreation at Red Fleet is managed by the Utah Division of Parks and Recreation under an agreement with Reclamation.

Uintah and Upalco Units

Section 203(a) of the CUPCA of 1992 provided for the construction of the Uintah Basin Replacement Project in place of the Uintah and Upalco units which were never constructed. P.L. 107-366, enacted December 19, 2002, deauthorized the

Uintah and Upalco units, transferring the unexpended budget authority to units of the CUP for construction of the Uintah Basin Replacement Project, Utah Lake System, and other CUPCA purposes. The district completed construction of the primary features (including the enlarged Big Sand Wash Dam) of the Uintah Basin Replacement Project. The Big Sand Wash Feeder Diversion Structure and Pipeline was completed in March of 2004. The Big Sand Wash Reservoir enlargement was completed in September 2006 followed by completion of the Big Sand Wash Roosevelt Pipeline in September 2008. In 2020, title to all features of the Uintah Basin Replacement Project was transferred to the Moon Lake Water Users Association under the authority of Title VIII of the John D. Dingell, Jr. Conservation, Management, and Recreation Act (Public Law No: 116-9**).**

Ute Indian Unit

The Ute Indian Unit was deauthorized in 1992 by Section 201(b) of the CUPCA.

Vernal Unit

The Vernal Unit in northeastern Utah supplies supplemental irrigation water to about 14,700 acres and approximately 1,600 acre-feet of municipal and industrial water annually to the communities of Vernal, Naples, and Maeser. Key project features include Steinaker Dam and Reservoir, Fort Thornburgh Diversion Dam, Steinaker Service Canal, and Steinaker Feeder Canal.

Recreation at Steinaker is managed by the Utah Division of Parks and Recreation under an agreement with Reclamation.

Wyoming

Eden Project

The Eden Project furnishes an irrigation water supply for 17,010 acres. Project lands are in the vicinity of the towns of Farson and Eden in southwestern Wyoming about 40 miles north of Rock Springs. Project features include Big Sandy Dam and Reservoir, Eden Dam and Reservoir, Little Sandy Feeder Canal, Big Sandy Feeder Canal, Means Canal, Little Sandy Canal, Eden Canal, and three laterals and a drainage system. Big Sandy Dam (completed in 1952) was constructed to replace some storage in the existing off-stream Eden Reservoir and to supply water for additional project lands. The Means Canal conveys water from Big Sandy Reservoir to the Westside Lateral, which serves lands on the west side of Big Sandy Creek, the Farson Lateral, which serves lands on the east side of the creek, and the Eden Canal which supplies the Eden lateral. The Eden Lateral supplies water to lands in Eden. Little Sandy Diversion Dam diverts water into the Little Sandy Feeder Canal. Water can be diverted from Big Sandy Dam to Eden Reservoir through the Big Sandy Feeder Canal. Water is drawn from Eden Reservoir to serve Eden Canal and Farson Lateral.

Reclamation and the Wyoming Water Development Office (WWDO) have moved forward with plans to increase the storage of Big Sandy Reservoir, and as a result, firm up the project water supply. Reclamation's Denver Technical Service Center completed designs to raise the top of active conservation 5 feet. The project will incorporate a filter diaphragm around the outlet works, additional toe drains at the left abutment, cutoff wall in the dike, a rebuilt diversion in the dike, and replacement of drop structures in the Big Sandy feeder canal, a final environmental assessment and finding of no significant impact was completed in June 2020. Project construction began in fall of 2021 and is expected to be complete by fall of 2023.

Recreation facilities at Big Sandy Reservoir are administered by Reclamation's Provo Area Office. As part of the dam enlargement, recreation facilities have been moved and rehabilitated. At this time, the boat ramp extension needs to be designed and Reclamation staff through the Provo force account crew are planning to accomplish the work. The design of recreation facilities is complete and the construction on the new recreation facilities began during Summer 2023.

In 2010, the Wyoming Game and Fish Commission implemented emergency regulations to stop the spread of aquatic invasive species in Wyoming waters. Under this regulation, all watercrafts are required to purchase and display an aquatic invasive species decal. Funds raised from purchase of the decals are used to pay for public education programs and prevention efforts to keep invasive quagga and zebra mussels from being introduced. Efforts include watercraft inspections, decontamination if warranted, and possible criminal and civil penalties for anyone found violating the regulations. To date, no mussels have been detected in Wyoming waters.

La Barge Project

The La Barge Project was found to be infeasible and was not constructed.

Seedskadee Project

The Seedskadee Project is in the Upper Green River Basin in southwestern Wyoming. It provides storage and regulation of the flows of the Green River for power generation, municipal and industrial use, fish and wildlife, and recreation. Principal features of the project include Fontenelle Dam, powerplant, and reservoir. The reservoir is operated for municipal and industrial water use, power production, flood control, and the downstream fishery and wildlife refuge.

Fontenelle Reservoir has an active capacity of 256,952 acre-feet and a total capacity of 334,411 acre-feet, with a surface area of approx. 7,861 acres. The lake is 20 miles in length when full and has a shoreline of approximately 56 miles. On October 23, 2018, President Donald Trump signed into law America's Water Infrastructure Act of 2018 (P.L. 115-270). Section 4310 of this bill authorizes Reclamation to plan and construct the Fontenelle Riprap Project, which will expand

the yield of Fontenelle Reservoir in Wyoming. The project will allow Wyoming to further develop its apportionment under the Upper Colorado River Basin Compact. Any work related to the expansion of the reservoir will be funded by the State of Wyoming.

Reclamation manages approximately 147,000 acres of withdrawn land adjacent to and downstream of Fontenelle Dam and Reservoir that are no longer needed for project purposes. Reclamation submitted a request to revoke its withdrawal of these lands to the BLM on December 31, 2014. The BLM reviewed the revocation request and completed field authorizations reviews. A Finding of No Significant Impact was developed and signed. Before sending the completed package to the Department of the Interior for review and final approval, additional concerns were brought forward from the BLM. This caused Reclamation to reassess all withdrawn land. Adjustments were made, as to which lands should be prepared for revocation. The new and revised package was sent to the Bureau of Land Management (BLM) in January 2022. The intent of this effort is to return lands to the public domain to be managed by the BLM.

Recreation facilities at Fontenelle Reservoir are managed by BLM under an agreement with Reclamation. Fontenelle Creek Recreation Area is the only developed site on the reservoir, although there are three other campgrounds (Tailrace, Weeping Rock, and Slate Creek) located below Fontenelle Dam, along the Green River, that are more primitive.

In 2010, the Wyoming Game and Fish Commission implemented emergency regulations to stop the spread of aquatic invasive species in Wyoming waters. Efforts include watercraft inspections, decontamination if warranted, and possible criminal and civil penalties for anyone found violating the regulations.

The State of Wyoming wishes to contract for additional water from Fontenelle Reservoir. Fontenelle's current active capacity is approximately 264,250 acre-feet of which 139,000 acre-feet is available to Wyoming in addition to 120,000 acre-feet already under contract. Extension of the riprap would increase the active capacity to approximately 344,000 acre-feet adding about 79,750 acre-feet available for contracting. Further analysis is needed to consider potential impacts to operations at lower levels for power generation, instream flows, and water deliveries.

Passage of H.R. 648 – 115th Congress, allows the extension of the riprap on the face of the dam to allow the state to contract for all remaining water (less dead storage) in the reservoir. This bill authorized an amendment to Definite Plan Report for the Seedskadee Project to provide for the study, design, planning, and construction activities that will enable the use of all active storage capacity of Fontenelle Dam and Reservoir, including the placement of sufficient riprap on the upstream face of the dam to allow such storage capacity to be used for authorized project purposes. The bill requires the State of Wyoming to provide funds for any

work carried out with regards to the additional capacity. The Department of the Interior has recently entered into a Technical Service Agreement with the state for the planning, design, related preconstruction activities such as environmental and cultural resource compliance, and construction of any modification of the Fontenelle Dam.

Colorado and New Mexico

Animas-La Plata Project

The Animas-La Plata Project is in southwestern Colorado and northwestern New Mexico and was first authorized by the CRBPA of 1968 (P.L. 90-537). In 1988, it was incorporated into the Colorado Ute Indian Water Rights Settlement Act (P.L. 100-585). The Colorado Ute Settlement Act Amendments of 2000 (Title III of P.L. 106-554, December 21, 2000) provide for implementation and completion of the project. Approval to begin construction was granted in October 2001 and initial site work started in April 2002. Construction of Ridges Basin Dam, the Durango Pumping Plant, and Lake Nighthorse (formerly called Ridges Basin Reservoir) will provide the Southern Ute Indian and Ute Mountain Ute Tribes with a reliable water supply for their future needs, while protecting scarce water resources for existing water users in southwestern Colorado and northwestern New Mexico. It remains a priority of the Secretary to complete the Animas-La Plata Project in a cost effective and efficient manner.

The Animas-La Plata Project consists of four major components: Ridges Basin Dam, Durango Pumping Plant, and Ridges Basin Inlet Conduit located in Colorado; and the Navajo Nation Municipal Pipeline (NNMP) located in New Mexico. The NNMP consists of approximately 26 miles of 24-inch diameter pipeline running from Farmington, New Mexico, to Shiprock, New Mexico, and will provide for the conveyance of 4,680 acre-feet of municipal water per year to Navajo Nation communities. The project consists of various other elements including multiple utility and road relocations; fish, wildlife, and wetlands mitigation; a permanent operating facility; and cultural resources investigations. The reservoir formed by Ridges Basin Dam was named Lake Nighthorse in honor of Senator Ben Nighthorse Campbell who played an instrumental role in the Colorado Ute Settlement and construction of the Animas-La Plata Project.

All Colorado features of the Animas-La Plata project are currently operational. In August 2012, water was released from Lake Nighthorse down Basin Creek to successfully test the Basin Creek features. An operation and maintenance contract has been signed with the Animas-La Plata Operations, Maintenance and Replacement Association (ALP OM&R Association) that allows project sponsors to operate Colorado project features. Transfer of OM&R responsibilities to the ALP OM&R Association occurred on April 1, 2013. Lake Nighthorse began filling on May 4, 2009, and filled for the first time on June 29, 2011. The maximum water surface

elevation of 6,882 feet equates to 123,541 acre-feet in storage and a water surface area of approximately 1,500 acres.

In New Mexico, completion of the NNMP has been delayed due to damages caused by a landslide in May 2014. In 2023, final design and NEPA compliance activities were completed, implementing the 2022 feasibility study's recommendations for replacing the pipe section in the landslide area with a horizontal directionally drilled installed pipeline that would be protected from future landslides. Construction on the replacement pipeline began in early-2024 and overall project completion and initial water deliveries is scheduled for the fall 2025.

Lake Nighthorse opened to recreation in the spring of 2018. The recreation area is managed by the City of Durango. Recreation opportunities at Lake Nighthorse include swimming, boating, fishing, and picnicking. Motorized boat use is allowed from May 15 to November 15. All motorized boats are inspected for invasive species and are subject to decontamination before entering the water. The entry area is being redesigned to better accommodate traffic flow and inspection and decontamination of boats. The city completed the installation of a sandy swim beach with amenities recently.

To protect cultural resources in the area, recreation is only allowed in developed areas and 25 feet above the high-water level around the reservoir. Land around Lake Nighthorse that is off-limits to recreation has been posted with no trespass signs and all visitors receive a brochure with rules for recreating at the lake. Destruction or removal of cultural resources will be prosecuted. Reclamation will continue to work with all partners and stakeholders regarding recreation management at Lake Nighthorse.

To protect cultural resources in the area, recreation is only allowed in developed areas and 25 feet above the high-water level around the reservoir. Land around Lake Nighthorse that is off-limits to recreation has been posted with no trespass signs and all visitors receive a brochure with rules for recreating at the lake. Destruction or removal of cultural resources will be prosecuted. Reclamation will continue to work with all partners and stakeholders regarding recreation management at Lake Nighthorse.

San Juan-Chama Project

The San Juan-Chama Project consists of a system of diversion structures and tunnels for transmountain movement of water from the San Juan River Basin to the Rio Grande Basin. Primary purposes of the San Juan-Chama Project are to furnish a water supply to the Middle Rio Grande Valley for municipal, domestic, and industrial uses. The project is also authorized to provide supplemental irrigation water and incidental recreation and fish and wildlife benefits. The regulating and storage reservoir is formed by Heron Dam on Willow Creek just above the point where Willow Creek enters the Rio Chama. Heron Reservoir is

operated by Reclamation in compliance with applicable federal and state laws including the San Juan-Chama Project authorization and the Rio Grande and Colorado compacts. Only imported San Juan-Chama Project water is stored in Heron Reservoir.

The Pojoaque Irrigation Unit, made up of Nambé Falls Dam and storage reservoir, provides supplemental irrigation water for about 2,800 acres in the Pojoaque Valley. It serves the Pojoaque Valley Irrigation District and the Pueblos of San Ildefonso, Nambé, and Pojoaque.

Reclamation, in coordination with the Western Area Power Administration, is considering hydroelectric power development on the San Juan-Chama Project under a lease of power privilege at up to four conduit drops along the project. Reclamation selected the Albuquerque Bernalillo County Water Utility Authority as the preliminary lessee. However, they elected to discontinue the project.

Recreation at Heron Reservoir is managed by New Mexico State Parks under an agreement with Reclamation. Recreation at Nambé Falls Reservoir is managed by the Nambé Pueblo under an agreement with Reclamation.

In April 2009, New Mexico's governor signed the Aquatic Invasive Species Control Act. The Act allows the New Mexico Department of Game and Fish to take actions to protect New Mexico's waters from the negative impacts of aquatic invasive species. To date, no evidence of invasive mussels has been found at Heron Reservoir. Nambé Pueblo does not have an active mussel inspection program; therefore, the status of Nambé Falls Reservoir is unknown.

Utah and Wyoming

Lyman Project

The Lyman Project lands are in southwestern Wyoming; however, much of the drainage area and one storage feature are in Utah, just across the Utah-Wyoming state line. The Lyman Project includes Meeks Cabin Dam and Reservoir and Stateline Dam and Reservoir. The project regulates the flows of Blacks Fork and the east fork of Smiths Fork for irrigation, municipal and industrial use, fish and wildlife conservation, and recreation. Recreation at Meeks Cabin and Stateline dams and reservoirs is the responsibility of the U.S. Forest Service, Wasatch-Cache National Forest, under authority of P.L. 89-72, as amended.

Recreational Uses at CRSP Reservoirs

CRSP facilities provide a kaleidoscope of scenic and recreational opportunities that have significant economic benefits. While exact use figures are not available, it is estimated that recreation visits to CRSP initial facilities totaled around 7.3 million for calendar year 2023, demonstrating the high value placed on outdoor recreation opportunities in the Intermountain West. Recreation use at participating projects

increased that number to approximately 9.4 million. Recreation at CRSP facilities is a strong economic driver in the affected states, with some smaller and more rural areas being almost entirely dependent upon the dollars that recreation brings to their communities.

OTHER RECLAMATION PROJECTS IN THE UPPER COLORADO RIVER BASIN

Significant Reclamation projects in the Upper Colorado River Basin that either use water from the Colorado River or are transbasin water diversion projects are discussed below. While these projects are not part of the CRSP, they are worth noting.

Colorado

Colorado-Big Thompson Project

The Colorado-Big Thompson Project is a multipurpose transmountain, transbasin water diversion and delivery project located in Colorado. The project stores, regulates, and diverts water from the Colorado River west of the Rocky Mountains, providing supplemental water for irrigation of 640,000 acres of land east of the Rocky Mountains. The project historically diverts 230,000 acre-feet annually from the headwaters of the Colorado River with a maximum possible diversion of 310,000 acre-feet. The Northern Water Conservancy District apportions the water diverted from the West Slope, which is used for irrigation in more than 120 ditches and 60 reservoirs. Besides irrigation water uses, the project also provides water for industrial, hydroelectric power, recreation, and environmental uses for a growing population of approximately 960,000.

Although the Colorado-Big Thompson Project is not a participating project of the CRSP, it does utilize water diverted from the Upper Colorado River system to the eastern slope of Colorado.

Colorado-Big Thompson Project storage as of September 30, 2023, was at 77% of capacity. Storage reservoir volumes were as follows:

- West Slope - Lake Granby, 481,733 acre-feet
- Grand Lake, 729 acre-feet
- Shadow Mountain, 16,969 acre-feet
- Willow Creek, 6,977 acre-feet
- Green Mountain, 74,375 acre-feet
- East Slope - Carter Lake, 75,025 acre-feet, and
- Horsetooth, 113,062 acre-feet

During water year 2023, transmountain diversions from the Colorado River Basin in Colorado by the Colorado-Big Thompson Project via the Adams Tunnel totaled 237,437 acre-feet.

Fryingpan-Arkansas Project

The Fryingpan-Arkansas Project is a multipurpose transmountain, transbasin water diversion and delivery project located in Colorado. It was designed for an average annual diversion of 69,200 acre-feet of surplus water from the Fryingpan River and other tributaries of the Roaring Fork River, on the western slope of the Rocky Mountains, to the Arkansas River Basin on the eastern slope. The historical average imports are 55,545 acre-feet. The Fryingpan-Arkansas Project originally provided a supplemental supply of irrigation water for 280,600 acres of farmland and currently provides a supplemental supply of water for 265,000 acres in the Arkansas Valley. Total project supplies may be further increased through use and reuse of project water.

Although the Fryingpan-Arkansas Project is not a participating project of the CRSP, it does utilize water diverted from the Upper Colorado River system to the eastern slope of Colorado.

Fryingpan-Arkansas Project storage as of September 30, 2023, was at 94% of capacity, excluding Pueblo Reservoir flood storage. Storage reservoir volumes were as follows:

- West Slope - Ruedi Reservoir, 84,053 acre-feet
- East Slope - Turquoise Lake, 83,864 acre-feet
- Combined Mt. Elbert Forebay and Twin Lakes Reservoir, 126,018 acre-feet, and
- Pueblo Reservoir, 217,847 acre-feet

During water year 2023, transmountain diversions from the Colorado River Basin in Colorado by the Fryingpan-Arkansas Project via the Charles H. Boustead Tunnel totaled 68,440 acre-feet.

PLANNING INVESTIGATION ACTIVITIES

The Upper Colorado Basin General Planning Activities (GPA) budget for fiscal year 2024 was $667,000. The GPA program focuses on planning activities that cross regional boundaries and includes Reclamation-wide planning tasks, unanticipated short-term studies, work related to interstate and international agreements, technical assistance to states and tribes, and other environmental and interagency coordination activities. GPA activities are not funded by any other projects or planning programs such as Reclamation's WaterSMART (Sustain and Manage America's Resources for Tomorrow) programs, including: Baseline Assessments (BAs), Reservoir Operations Pilots (ROPs), Applied Science Grants (ASGs), Basin Studies, Water Operation Pilots (WOPs), Water Marketing Strategy Grants (WMSG), Environmental Water Resources Projects (EWRP), Drought Response, Title XVI Water Reclamation and Reuse, Cooperative Watershed Management (CWM), and UCB's Water Conservation Field Services Program (WCFS).

Reclamation conducts BAs to develop water supply and demand information, guidance, and tools needed to conduct planning activities across Reclamation's mission areas. The ROPs conducts pilot studies to identify possible improvements to reservoir operations by incorporating improved scientific information and enhancing operational flexibility to maximize benefits from the existing system. The ASGs develop hydrologic information and water management tools and improve modeling and forecasting capabilities. Basin Studies are collaborative studies, cost-shared with non-federal partners, to evaluate water supply and demand and help ensure reliable water supplies by identifying strategies to address imbalances in water supply and demand. WOPs allow entities that have completed a basin study to build on the analyses and strategies developed in the basin study. EWRP is focused on realizing environmental benefits and increasing the reliability of water resources.

The WMSG provides grants to conduct planning activities in developing a water marketing strategy that establish or expand water marketing activities between willing participants, in compliance with state and federal laws. The Drought Response Program provides assistance to develop a drought contingency plan or to update an existing plan to meet the required elements described in the Drought Response Framework to build long-term resiliency to drought. The Title XVI Water Reclamation and Reuse Program focuses on identifying and investigating opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water. The CWM Program Phase I provides funding for watershed group development, watershed restoration planning, and watershed management project design.

The WCFS Program provides UCB entities technical and financial assistance toward the development of water conservation plans and system optimization reviews that identify water management improvements and application of new water conservation technologies through demonstration activities in the UCB.

RESERVOIR OPERATIONS

Each year Reclamation prepares the Annual Operating Plan (AOP) for Colorado River reservoirs. The purpose of the AOP is to report on past year's operations and illustrate the potential range of reservoir operations that might be expected in the upcoming water year. Information from the 2025 AOP is summarized below.

For a detailed discussion of reservoir operations in 2024 and the range of probable projected 2025 operations for each of the four main storage units of the CRSP, please visit the Reclamation's Upper Basin AOP webpage to view it in its entirety.[5]

[5] U.S. Bureau of Reclamation. Annual Operating Plan. Accessed at: https://www.usbr.gov/uc/water/rsvrs/ops/aop/index.html.

2024 Hydrology Summary and Reservoir Status

Below average streamflow was observed throughout much of the Colorado River Basin during water year 2024. Unregulated inflow to Lake Powell in water year 2024 was 7.98 maf, or 83 percent of the 30-year average which is 9.60 maf. Unregulated inflow to Flaming Gorge, Blue Mesa, and Navajo Reservoirs was 83, 102, and 65 percent of average, respectively.

Precipitation in the Upper Colorado River Basin was near average[47] during water year 2024. On September 30, 2024, the cumulative precipitation received within the Upper Colorado River Basin for water year 2024 was 100 percent of median.

Snowpack conditions trended near average to above average across most of the Colorado River Basin throughout the water year 2024 snow accumulation season. The basin wide snow water equivalent measured 114 percent of the median peak on April 3, 2024, which is three days earlier than the peak seasonal accumulation day of April 6. On April 1, 2024, the snow water equivalents for the Green River, Upper Colorado River Headwaters, and San Juan River Basins were 103, 108, and 108 percent of median, respectively.

During the 2024 spring runoff period, inflows to Lake Powell peaked on June 13, 2024, at approximately 48,320 cubic feet per second (cfs). The April through July unregulated inflow volume for Lake Powell was 5.33 maf which was 83 percent of average.

The Colorado River total system storage experienced a net decrease of 0.105 maf in water year 2024. Reservoir storage in Lake Powell increased during water year 2024 by 0.351 maf. Reservoir storage in Lake Mead decreased during water year 2024 by 0.164 maf. At the beginning of water year 2024 (October 1, 2023), Colorado River total system storage was 43 percent of capacity. As of September 30, 2024, total system storage was 43 percent of capacity.

System Conservation

During ongoing drought in the Colorado River Basin, storage in Colorado River system reservoirs has declined from nearly full to less than half of capacity. Entities that rely on Colorado River water were concerned with the extended drought and declining reservoir levels at Lake Powell and Lake Mead. In response, several programs were implemented to test approaches that might help mitigate the impacts of the drought.

Figure 22: Lake Powell and Glen Canyon Dam in Page, Arizona.

In October 2022, the Department announced an investment in long-term system efficiency improvements across the basin, which includes at least $500 million in the Upper Basin States that will result in additional water conservation for the entire system. Reclamation is planning on implementing the use of these funds in two phases. For the first phase, Reclamation invested $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 and ecosystem restoration.

Projected Upper Basin Delivery for 2025

Taking into account (1) the existing water storage conditions in the basin, (2) the August 2024 24-Month Study[24] projection of the most probable near-term water supply conditions in the basin, and (3) Section 6.C.1 of the 2007 Interim Guidelines and Section 6.E. of the 2024 Interim Guidelines SEIS ROD, the Mid-Elevation Release Tier will govern the operation of Lake Powell for water year 2025. The August 2024 24-Month Study of the most probable inflow scenario projects the water year 2025 release from Glen Canyon Dam to be 7.48 million acre-feet (maf).

Reclamation will continue to monitor hydrologic and operational conditions and assess the need for additional responsive actions and changes to operations. Reclamation will continue to consult with the Basin States, Native American tribes, the Republic of Mexico, and other partners on Colorado River operations to consider future protective measures for both Lake Powell and Lake Mead.

Summary of Reservoir Operations in 2024 and Projected 2025 Reservoir Operations

The operation of Colorado River reservoirs has affected some aquatic and riparian resources. Controlled releases from dams have modified temperature, sediment load, and flow patterns, resulting in increased productivity of some riparian and non-native aquatic resources and the development of economically significant sport fisheries. However, these same releases can have detrimental effects on endangered and other native species. Operating strategies designed to protect and enhance aquatic and riparian resources have been established after appropriate NEPA compliance at several locations in the Colorado River Basin.

In the Upper Basin, public stakeholder work groups have been established at Fontenelle Dam, Flaming Gorge Dam, the Aspinall Unit, and Navajo Dam. These workgroups provide a public forum for dissemination of information regarding ongoing and projected reservoir operations throughout the year and allow stakeholders the opportunity to provide information and feedback with respect to ongoing reservoir operations. Additionally, the Glen Canyon Dam AMWG was established in 1997 as a chartered committee under the Federal Advisory Committee Act of 1972.

Modifications to projected operations are routinely made based on changes in forecasted conditions or other relevant factors. Within the parameters set forth in the Law of the River and consistent with the Upper Colorado Recovery Program, the San Juan River Basin Recovery Implementation Program (San Juan Recovery Program), Section 7 consultations under the ESA, and other downstream concerns, modifications to projected monthly operations may be based on other factors in addition to changes in streamflow forecasts. Decisions on spring peak releases and downstream habitat target flows may be made midway through the runoff season. Reclamation will conduct meetings with Recovery Program participants, the U.S. Fish and Wildlife Service, other federal agencies, representatives of the Basin states, and with public stakeholder work groups to facilitate the discussions necessary to finalize site-specific projected operations.

FISH AND WILDLIFE

During the 1960s and 1970s, growing public concern over the environment resulted in new federal environmental laws. The enactment of the Colorado River Basin Project Act of 1968, National Environmental Policy Act (NEPA) of 1969, Endangered Species Act (ESA) of 1973, and Grand Canyon Protection Act (GCPA) of

1992 has resulted in new compliance requirements as well as authorization in some cases for CRSP units to modify operations for fish and wildlife and other environmental protection purposes. Additionally, the Reclamation Projects Authorization and Adjustment Act, signed October 30, 1992 (P.L. 102-575), was authorized to protect, restore, and enhance wetland and upland ecosystems for the conservation of fish and wildlife resources in the Upper Colorado River Basin, including fish and wildlife resources adversely affected by construction and operation of the CRSP.

Since its inception in 1956, CRSP has grown to include the participation of two significant endangered fish Recovery Programs: The Upper Colorado River Recovery Program and the San Juan River Basin Recovery Implementation Program (SJRIP).

The Upper Colorado Recovery Program, established in 1988, is a cooperative effort among the states of Colorado, Utah, and Wyoming; representatives from the water development, hydroelectric consumer, and environmental communities; and affected federal agencies including Reclamation, the NPS, U.S. Fish and Wildlife Service, and Western Area Power Administration. The intent of the program is to recover the four endangered Colorado River fish species (humpback chub, bonytail, Colorado pikeminnow, and razorback sucker) while the states continue to develop their Colorado River Compact entitlements. With its demonstrated successes, the Upper Colorado Recovery Program has become a national model for its collaborative conservation efforts to protect endangered species.

The San Juan River Basin Recovery Implementation Program, established in 1992, is ongoing in the San Juan River Basin with participation from the states of Colorado, New Mexico and Utah; four Native American tribes and nations including the Jicarilla Apache, Navajo, Southern Ute Indian, and Ute Mountain Ute Indian; the Nature Conservancy, Water User Interests, and affected federal agencies including Reclamation, the Bureau of Indian Affairs, BLM, and U.S. Fish and Wildlife Service. The goal of the SJRIP is to protect and recover the native fish communities in the San Juan River while providing for continued water development per state/federal laws.

As a result of activities being conducted by both the Upper Colorado and the San Juan River Recovery Programs, aggressive efforts are being made to stock enough Colorado pikeminnow, razorback sucker, and bonytail to provide the basis for self-sustaining populations that lead to downlisting and de-listing of the species. Capital projects constructed include fish passages, fish screens, habitat improvement projects, hatcheries, levee breeches, storage reservoirs, and irrigation system upgrades. In addition, existing CRSP storage facilities are now being operated to enhance natural resources. To date, the two Recovery Programs have served as the prudent alternative for water projects depleting more than 3.7 million acre- feet of water annually while avoiding ESA related litigation.

The Upper Colorado and San Juan Recovery Programs were reauthorized on December 23, 2024, in PL 118-159 (Section 5311). The law reauthorizes federal funding of $50 million for capital projects and $92.04 million for base funding for the period from 2024 through 2031. It also limits funding from power revenues to no more than $499,000 total.

APPROPRIATIONS OF FUNDS BY THE UNITED STATES CONGRESS

The funds appropriated[6] for fiscal year 2023 for construction of the CRSP and participating projects, recreational, fish, and wildlife activities were $31,185,000. CRSP Indian Water Rights Settlement funding was removed from appropriations in FY2022 and FY2023. The funding source for CRSP Indian Water Rights Settlement (aka the Navajo-Gallup Water Supply Project) was changed to the mandatory Indian Water Rights Settlement Completion Fund (IWRSCF) in the Bipartisan Infrastructure Law, therefore are not included in table 12 and 13 below. The IWRSCF allocated $123 million in FY 2022 and $139 million in FY 2023 for the Navajo-Gallup Water Supply Project.

TABLE 12. Colorado River Storage Project Fiscal Year 2023 Program

	FY2022	FY 2023
CRSP Initial Units & Participating Projects		
Initial Units, CRSP	$20,000,000	$20,000,000
Participating, CRSP	$1,886,000	$1,547,000
Salinity, CRBSCP	$7,078,300	$6,054,000
CRSP Indian Water Rights Settlement		
Navajo-Gallup Water Supply	$0	$0
TOTAL – Upper Colorado River Appropriated Funds	$28,964,300	$27,601,000
Recreation and Fish and Wildlife Facilities		
Recreational Facilities	$390,000	$398,000
Fish and Wildlife Facilities	$2,932,000	$3,186,000
TOTAL – CRSP Section 8	$3,322,000	$3,584,000
TOTAL – Construction & Section 8	$32,286,300	$31,185,000

[6] Approved by Congress, minus recissions.

TABLE 13. Appropriations Approved by Congress
for the Colorado River Project and Participating Storage Projects[7]

Fiscal Year	Amount
1957	13,000,000
1958	35,142,000
1959	68,033,000
1960	74,460,000
1961	58,700,000
1962	52,535,000
1963	108,576,000
1964	94,037,000
1965	55,800,000
1966	45,328,000
1967	46,648,000
1968	39,600,000
1969	27,700,000
1970	25,740,000
1971	24,230,000
1972	27,284,000
1973	45,770,000
1974	24,426,000
1975	22,967,000
1976	53,722,000
1977	55,200,000
1978	67,051,000
1979	76,799,000
1980	81,502,000
1981	125,686,000
1982	130,063,000
1983	132,942,000
1984	161,104,000
1985	163,503,000
1986	97,412,000
1987	110,929,000
1988	143,143,000
1989	174,005,000
1990	163,653,000
1991	145,063,000
1992	92,093,000
1993	69,333,000

[7] This information was prepared in good faith on the basis of information available at the date of publication.

1994	46,507,000
1995	23,272,000
1996	27,049,000
1997	22,410,000
1998	17,565,000
1999	10,560,000
2000	13,908,000
2001	14,403,000
2002	16,000,000
2003	35,000,000
2004	55,640,000
2005	57,512,000
2006	64,320,000
2007	69,815,000
2008	65,175,000
2009	50,653,000
2010	63,144,000
2011	25,658,000
2012	39,376,000
2013	53,905,000
2014	86,047,000
2015	108,390,000
2016	122,080,000
2017	116,364,000
2018	101,470,000
2019	122,227,000
2020	110,464,000
2021	76,328,000
2022	32,286,300
2023	31,185,000
Total	$4,611,892,300[8]
Plus: NIIP appropriations (funds transferred to Reclamation only)	$632,810,000
TOTAL APPROPRIATIONS	$5,244,702,300
Excluding non-reimbursable funds for fish and wildlife, recreation, etc., under Section 8 of P.L. 485, 84th Congress, and all under financing and recession actions.	

Table 13 shows the total funds (rounded to the nearest $1,000) approved by the United States Congress for the CRSP and participating projects and chargeable against the limitations of various authorizing Acts (P.L. 485, 84th Congress, CRSPA,

as amended in 1972 by P.L. 32-370 and in 1988 by P.L. 100-563; P.L. 87-485, San Juan-Chama and Navajo Indian Irrigation Projects Act; P.L. 88-568, Savery-Pot Hook, Bostwick Park, and Fruitland Mesa Projects Act; and P.L. 90-537, CRBPA).

COLORADO RIVER BASIN TITLE II SALINITY CONTROL PROGRAM

Information relative to the Colorado River Basin Title II Salinity Control Program in the Colorado River Basin has been provided by the United States Department of the Interior, Bureaus of Reclamation and Land Management, and the United States Department of Agriculture (USDA), NRCS. Discussion of the Title II, Colorado River Basin Salinity Control Act, P.L. 93-320, (approved June 24, 1974) (Salinity Control Act) and its amendments can be found in earlier versions of this annual report.

Reclamation's salinity control programs in the Colorado River Basin are described below. They include the Colorado River Basinwide and the Basin States Salinity Control Programs. The BLM's salinity control program in the Colorado River Basin and the NRCS's salinity control activities in the Colorado River Basin are also described in this section. Additional information on these programs can be found in earlier annual reports of the Upper Colorado River Commission.

COLORADO RIVER BASINWIDE SALINITY CONTROL PROGRAM

The Colorado River Basinwide Salinity Control Program (Basinwide Program) is being implemented under the authorities provided by the 1995 amendment (P.L. 104-20) to the Salinity Control Act. Through the Basinwide Program, projects are selected through Notice of Funding Opportunity (NOFOs).

In 2024, $6,003 million of appropriations and $2.6 million of Basin Funds were devoted to Reclamation's Basinwide Program for a total of $8.6.3 million. It is estimated that the facilities installed with the $8.6 million will control over 9,500 tons of salt loading each year. As of September 30, 2024, Reclamation calculates the appropriation ceiling to be $756,273,774; total expenditures are $529,392,542; and the remaining ceiling balance is $226,881,233.
Reclamation is implementing salinity control through the Basinwide Program in the project areas shown below:

Colorado

Gould Canal A in Montrose, Colorado

Selected under the 2017 NOFO, the Fruitland Irrigation Company was awarded a $4.4 million cooperative grant for four stages of work. "Section 1" will be piping approximately 1.17 miles of existing open earth irrigation canal with buried HP Storm or similar pipe. "Upper Tunnel" consists of slip liner construction for the upper tunnel. "Section 3" includes lining approximately 1.41 miles of unlined canal with 30 mil PVC membrane with shotcrete cover. "Section 4" consists of lining approximately 0.76 miles of unlined canal downstream of Section 3 using the same method. All four section will be responsible for controlling approximately 3,175 tons of salt annually. Fruitland Irrigation Company requested and received a

modification to change a portion of sections 3 and 4 from a lined canal to a pipeline. They also requested a modification to construct a bypass pipeline instead of the slip liner for the "upper" tunnel section. Construction of the pipeline began in the fall of 2020. The project is expected to be completed by April 30, 2026.

Gould Canal B in Montrose, Colorado

Selected under the 2017 NOFO, the Fruitland Irrigation Company was awarded a $3.565 million cooperative grant for three stages of work. "Lower Tunnel" consists of slip liner construction for the lower tunnel. Section 2 includes lining approximately 2.10 miles of unlined irrigation canal with 30 mil PVC membrane with shotcrete cover. Section 5 consists of lining roughly 2.30 miles of unlined canal using the same methods as Section 2. These improvements will control 2,564 tons of salt annually. Fruitland Irrigation Company requested and received a modification to change a portion of section 2 from a lined canal to a pipeline. They also requested a modification to de-scope the slip liner of the "lower tunnel". This would reduce the salt savings by 191 tons annually. The funding for the project was reduce by $264,091.58 to maintain the same level of cost effectiveness. Construction of the pipeline began in the fall of 2020. The agreement expired on December 31, 2024.

Grand Valley Irrigation Company (GVIC) 550 Salinity Control Program

Selected under the 2019 NOFO, the GVIC was awarded a $1.4 million cooperative grant to line approximately 1.0 mile of their main irrigation canal within the Grand Valley. This will result in a salt load reduction of approximately 743 tons annually at a cost effectiveness of $62.70 per ton. The canal lining will consist of a 30-mil PVC membrane with 3-4 inches of shotcrete cover. The cooperative agreement was executed in July 2020. Construction began in November 2021 and was completed September 30, 2024.

Grand Valley WUA Government Highline Canal – Reach 1A Lower

Selected under the 2019 NOFO, the Grand Valley Water Users Association (GVWUA) was awarded a $4.691 million cooperative grant to line approximately 1.2 miles of their main irrigation canal within the Grand Valley. This will result in a salt load reduction of approximately 3,083 tons annually at a cost effectiveness of $57.75 per ton. The canal lining will consist of a 30-mil PVC membrane with 3-4 inches of shotcrete cover. The cooperative agreement was executed in June 2020, construction began in November of 2020was completed April 1st, 2025.

Needle Rock Ditch

Selected in the 2019 NOFO, the Needle Rock Ditch Piping Project near Crawford, CO, was selected to be awarded a $5,932 to replace approximately 6.7 miles of existing earthen irrigation canals and laterals with buried PVC pipe. This project

will control 2,952 tons of salt annually. Construction began in November 2021 and was completed by April 1, 2025.

Paradox Valley Unit

From 1996 to 2019, the Paradox Valley Unit intercepted an average of 95,000 tons of salt annually and disposed of it by injecting it into a 16,000-foot well. Operations were suspended in March 2019 following a M4.6 earthquake that occurred near the well. An analysis was initiated in 2021 to determine the risk of seismicity with future operation of the well.

The Paradox Valley Unit is currently operating at a reduced injection rate of 115 gallons per minute (67% of past operations) following a successful injection test throughout calendar year 2024 to determine operability of the injection well and injection zone at reduced rates. The PVU removed 62,913 tons of salt in 2024, which is up from 53,257 tons of salt from 2023.

In 2025, the injection test period will continue until Reclamation's Technical Services Center has gathered enough seismic data to make a recommendation on permanent operations. Reclamation will continue to closely monitor seismicity while maintaining operational status. If unfavorable conditions are observed, the injection test will be suspended until it is deemed safe to continue.

Because the existing brine injection well is nearing the end of its useful life, Reclamation investigated alternatives for disposing the brine. Reclamation prepared an EIS to evaluate the impacts of alternative methods of salinity control at Paradox with three action alternatives and a “no action” alternative being evaluated. The three action alternatives were a new deep injection well, evaporation ponds, and zero liquid discharge technology. The Final EIS was published in December 2020 which identified the No Action alternative as the preferred alternative. No ROD was issued to allow other potential alternatives to be considered in the future.

Since December 2020 there has been continued interest in finding a feasible alternative solution for disposing the brine. In May 2023, Reclamation released a Request for Information and Statement of Objectives requesting responses from any interested parties with ideas. Two responses were received but both were previously analyzed as action alternatives in the 2020 Final EIS. No viable action alternatives not previously analyzed or previously rejected from further analysis have been identified as of February 2025.

Uncompahgre Valley Water Users Association (UVWUA) – Phase 9 East Side Laterals Project

As a result of the 2015 NOFO, the UVWUA was selected to be awarded a $5.363 million cooperative agreement for Phase 9 of the East Side Laterals. This phase involves piping or abandoning an additional 21.6 miles of laterals off the Selig and East Canals, resulting in an expected annual salt reduction of 6,030 tons, at a cost effectiveness of $37.07 per ton. A portion of the project is funded by the Natural Resources Conservation Service (NRCS) through the Regional Conservation Partnership Program. The cooperative agreement was executed in September 2017. Construction began in 2018 and the first and second phases of the project was completed. The last phase of the project was completed January 2024.

Upper Stewart Ditch, Paonia, Colorado

Selected under the 2017 NOFO, the Stewart Ditch & Reservoir Company was awarded a $2.507 million cooperative grant. This pipeline project will eliminate and replace 13,142 feet of open earthen canal, 450 feet of existing corrugated metal pipe, and 243 feet of miscellaneous piped sections. The proposed pipeline starts at the west side of Lamborn Mesa Road in Paonia, Colorado, and continues west until it reaches the existing Stewart Ditch pipeline. In this stretch of canal there is a 450-foot section of existing 42-inch CMP pipe that will be removed and replaced with new PVC pipe. This will result in an annual salt load reduction of approximately 1,622 tons to the Colorado River at a cost effectiveness of $58.67 per ton. The cooperative agreement was executed in August 2018 and construction began in the fall of 2020. The project was completed December 2024.

Tuner/Lone Cabin Ditch

Selected under the 2019 FOA, Turner Ditch Company was awarded a $7,663,723 cooperative agreement. The project will replace approximately 25 miles of existing earthen irrigation canals and laterals with buried pipe. This project will control 3,398 tons of salt annually. On January 20, 2025, Turner Ditch Company submitted a performance report requesting to de-scope the project and close out this agreement without beginning construction. This would result in zero salt savings for this project.

Webber Ditch Piping Project, Mancos Colorado

Selected under the 2019 NOFO, the Webber Ditch Company was awarded a $3.3 million cooperative grant for piping approximately 4.24 miles of existing earthen irrigation canal. The pipeline will consist of buried PVC pipe. This will result in a salt load reduction of approximately 2,066 tons annually at a cost effectiveness of $59.99 per ton. On August 30, 2024 Webber Ditch Company submitted a performance report requesting to de-scope the project and close out this agreement with out beginning construction. This would result in zero salt savings for this project

BASIN STATES SALINITY CONTROL PROGRAM

P.L. 110-246, signed into law on June 18, 2008, amended the Salinity Control Act creating the Basin States Salinity Control Program (BSP) to be implemented by the Secretary through Reclamation. Funds expended through the BSP come from Basin Funds.

In 2024, Reclamation expended $4.6 million through the BSP. While some of the funds were provided to state agencies and USGS offices in the states of Colorado, Utah, and Wyoming to assist in implementing the BSP, most of the funds were utilized for the salinity control projects described below. Funds were also expended to conduct research, studies, and investigations for further implementation of the program.

Reclamation solicits projects through a NOFO for both the Basinwide Program and the BSP. Through the NOFO process, projects are ranked into a competitive range, but due to lack of funding not all projects in the competitive range are able to be funded through the Basinwide Program. Reclamation approves some of these projects to be funded through the BSP.

Bureau of Reclamation

Reclamation is implementing salinity control through the BSP in the projects shown below:

Muddy Creek Irrigation Company Piping Project Phase III

Reclamation executed a cooperative agreement with Muddy Creek Irrigation Company in September of 2018 and construction began in October 2019. The project budget is $4,6 M to pipe approximately 9.5 miles of existing, unlined earthen irrigation ditch located near Emery, Utah. This will result in an annual salt load reduction of approximately 3,186 tons to the Colorado River at a cost effectiveness of $57.78 per ton. The project was completed and the agreement is being closed with a deobligation of $624,442 going back to the BSP fund.

Shinn Park/Waterdog Laterals Salinity Reduction Project

Located near Montrose, Colorado, the Shinn Park/Waterdog Laterals Salinity Reduction Project will include piping two Bostwick Park Water Conservancy District laterals. The Shinn Park lateral of approximately 17,370 feet of open, earthen ditch will be replaced with HDPE pipe. The Waterdog lateral will pipe approximately 23,540 feet of open, earthen ditch with HDPE pipe. The two laterals will result in an annual salt load reduction of approximately 3,304 tons to the Colorado River at a cost effectiveness of $59.16 per ton. The cooperative agreement was executed in September 2018, construction began in the fall of 2019 and was completed April 2024.

Jerdan, West, Hamilton Laterals Pipeline Project

Selected in the 2017 NOFO, the Crawford Clipper Ditch Company near Crawford, Colorado, was selected to be awarded a $5 million cooperative agreement for piping approximately 6.7 miles of existing earthen irrigation canal. The pipe will consist of buried PVC pipe. This project will control 2,614 tons of salt annually with 20 acres of potential on farm improvements. Construction began in November 2024 and expected to be completed by July 31, 2026.

Interstate Canal Salinity Reduction Project

This project was selected from the 2019 NOFO. A cooperative agreement was executed in September 2020 for $4,7M. This project, located in Southwestern Wyoming, adjacent to the Wyoming- Utah border near McKinnon, Wyoming, will replace approximately 13.1 miles of an unlined earthen canal with a pressurized HDPE pipeline system resulting in the annual reduction of 2,295 reportable tons of salt in the Colorado River. This project is in the pre-construction phase with construction expected to begin in the Spring of 2026.

Short Ditch Extension Piping

This project was selected from the 2019 FOA. A cooperative agreement was executed with the Short Ditch Extension Company in July 2020 for $694,605. This project, located near Hotchkiss, CO, will replace approximately 1.1 miles of an unlined earthen canal with a pressurized pipeline system. This project will result in the annual reduction of 419 reportable tons of salt in the Colorado River. This project is in the pre-construction phase with construction expected to be completed in June 2025.

Lower Bench Canal Salinity Control Project

Funded under a 2023 Basin States Program NOFO, this project is to provide resources for the Uintah Indian Irrigation Project O&M Company for salinity control by eliminating seepage losses via piping of 13.97 miles of the unlined open Bench Canal. The project is near Bottle Hollow Reservoir near Ft. Duchesne, Utah. The Bench Canal receives water from the Uinta River and flows south approximately fifteen miles serving 5,494 acres of Class I land. Water is diverted to the Canal from April 1 to October 31. This project will control 2,087 tons of salt annually at a cost of $70.66/ton. Reclamation funded $3.5M of this $5.5M project.

Colorado Water Conservation Board

Lower Gunnison Basin Salinity Program Coordinator

The Colorado Department of Agriculture continues to employ a full-time salinity program field coordinator, position is funded by the BSP. This makes it possible for

the State of Colorado to give input on salinity projects and work that is going on in the state.

Utah Department of Agriculture and Food (UDAF)

Uintah Basin Salinity Coordinator

UDAF, through its agreement with Reclamation, continues to employ the Uintah Basin Salinity Coordinator using BSP funds. With concurrence from the Salinity Forum, Reclamation, in 2017, approved the coordinator to work with entities in other areas of the Colorado River Basin in Utah.

Wyoming Water Development Commission

An agreement between Reclamation and the Wyoming Water Development Commission (WWDC) was put in place in 2021 to use BSP funds that will end in 2026. This agreement is similar to agreements with the UDAF and Colorado State Conservation Board.

BUREAU OF LAND MANAGEMENT SALINITY CONTROL PROGRAM

The BLM administers about 53 million acres of public land within the Colorado River Basin (CRB) and is required to reduce salt transport from these lands under the CRB Salinity Control Act of 1974 (as amended). In FY 2022, the BLM allocated $2 million to salinity control program projects in five western states and the BLM's National Operations Center (NOC).

Program Administration

The BLM's Aquatic Resources Program fosters a watershed approach to improve water quality on public lands in support of the agency's multiple use and sustained yield mission. The Program coordinates activities within the BLM to achieve the objectives of the CRB Salinity Control Program. In FY 2024, the BLM continued to implement projects to control and monitor nonpoint sources of salt and sediment pollution on public lands to improve the usability of water for aquatic ecosystems, agriculture, and human consumption in collaboration with Federal, Tribal, State, and local partners.

Since 2020, the BLM has allocated an average of $1.90 million per year to the CRB Salinity Control Program to support salinity and sediment control projects; assessment, monitoring, and modeling activities; and data management (Table 14).

Table 14. BLM CRB Salinity Control Program funding allocations for each state and center for the period FY 2020 – FY 2024.

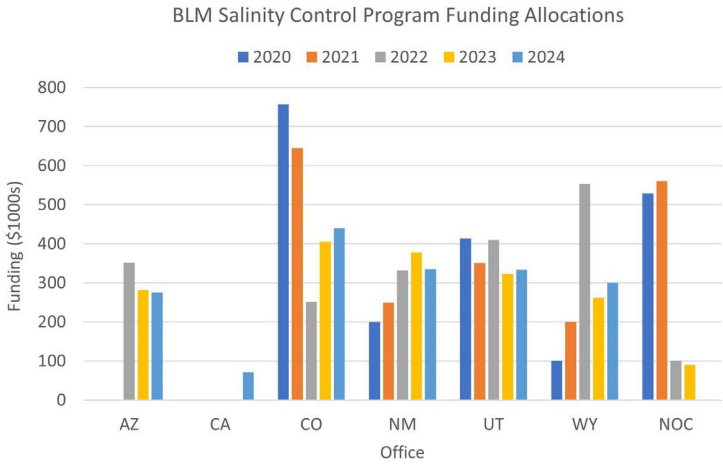


Table 15. FY24 allocation of CRB Salinity Control Program funding

Project	Funding ($)	Partners
Arizona		
Fort Pearce Wash Watershed Erosion and Salinity Control Structure Repair and Maintenance	150,000	USFS; AZ Association of Conservation Districts
Fort Pearce Wash Watershed Flat Top Dam Salinity Control Through Tamarisk Removal	125,000	NRCS; Mule Deer Foundation; Heaton Cattle Co.; AZ Game & Fish; AZ Association of Conservation Districts
Colorado		
Horse Creek Headcut Stabilization	100,000	Trout Unlimited
Pine Gulch Post-Fire Water Quality Monitoring	250,000	USGS
Salinity Soil Stabilization Project	20,000	NRCS
White River Tributary Low Tech Restoration Project	70,000	Colorado Open Lands; Trout Unlimited; RiversEdgeWest; White River Alliance; The Nature Conservancy; Ute Indian Tribe of the Uintah & Ouray Reservation
New Mexico		
Upper San Juan Riparian Exotic Vegetation Control and Restoration	250,000	San Juan Soil and Water Conservation District
Farmington Field Office Vegetation Treatments Targeting Sagebrush on 17,000 Acres	85,000	
Utah		
Salinity Control Structure Maintenance in Gould Wash and Fort Pearce Watersheds	130,000	State of UT; Dixie Creek Conservation District; Utah's Watershed Restoration Initiative
Monsoon Salinity Loads on BLM Lands in Utah	84,000	USGS
Grand Staircase-Escalante National Monument Salinity Control	50,000	USFS
Salinity Control Structure Maintenance in Kanab Creek	30,000	State of UT; Utah's Watershed Restoration Initiative

and E. Fork Virgin River Watersheds		
San Juan Salinity Monitoring near Bluff Utah	40,000	USGS
Wyoming		
Savery Creek Stabilization	100,000	WY Game & Fish Dept.; Trout Unlimited; WY Water Development Commission
Muddy Creek Watershed Habitat Improvement	100,000	WY Game & Fish Dept.; Trout Unlimited; USFWS
Low-tech Structure Maintenance and Equipment	100,000	Sublette County Conservation District
FY 2024 Total	1,684,000	

Arizona

Fort Pearce Flood/Salinity Control Structure Repair and Maintenance: The Arizona Strip Field Office area includes hundreds of erosion control structures built to retain sediment and water on some of the most erodible, saline soils. These structures slow runoff, erosion, and the loss of valuable soils which would eventually end up in the Colorado River. There are approximately 243 of these structures in the 1 million-acre Fort Pearce flood and salinity control sub-basin. Many of these structures were constructed in the 1960s and have deteriorated and/or been breached by heavy runoff. Without occasional maintenance and repairs, these structures fill up with saline silt over time causing them to lose their holding and functional capacity. The Arizona Strip Field Office, in collaboration with the Arizona Association of Conservation Districts, are maintaining these structures in a systematic manner to maintain their functionality and meet the goals and objectives of the BLM for reducing saline soil erosion and transport across the landscape. In FY 2024, the maintenance and repair of 18 structures was continued or completed.

Flat Top Dam Salinity Control Tamarisk Removal: Throughout the Clayhole allotment south of Cane Beds, AZ, the invasion of tamarisk is depleting native understory and causing erosion on the face of erosion control structures. Invasive tamarisk species are a threat to structures causing cavities and allowing pathways for water movement along roots and the eventual dissolution of the soil. The Arizona Strip Field Office implemented tamarisk removal efforts beginning in FY 2017 with the repair of Flat Top Dikes 4 and 9. In FY 2023, the Arizona Strip Field Office began the process of partnering with the Arizona Association of Conservation Districts to continue tamarisk removal treatments and reseeding of native species. In FY 2024, an agreement with the Conservation Districts was awarded and work began to treat approximately 88 acres in the Big Warren area of the Clayhole Allotment through various methods such as hand cutting the shoots and applying herbicide and mulching or cutting, followed by herbicide application to the remaining base.

Colorado

Monitoring Salt Loading from the Pine Gulch Fire: In FY 2024, the BLM continued to partner with the USGS to monitor salt loading from the Pine Gulch Fire, which burned 138,680 acres northwest of Grand Junction in the fall of 2020. The objective of this study is to collect data in new locations and supplement on-going collection activities to better characterize post-wildland fire effects on water-quality for selected areas downstream from the Pine Gulch Fire. Results from the analyses of streamflow, field parameters, and concentrations and loads of various constituents will be presented spatially and temporally as maps and plots. Additionally, the analysis will look at correlations between various water-quality constituents, streamflow, rain-intensity, and burn severity. This information will help land managers and stakeholders gain a better perspective regarding possible temporal and spatial links between water quality and fire. Results will be comparable to available erosion and salinity loads estimates from other modeling efforts and to historical water-quality conditions. A USGS Scientific Investigation Report will be written and delivered as a final product in calendar year 2025 or 2026.

Uncompahgre Salinity Soil Stabilization: In FY 2024, the Uncompahgre Field office continued treatments on highly erosive soils derived in the Mancos Shale geologic formation. The goal of the project is improving vegetative cover to prevent further erosion and mobilization of salt and sediment during large monsoon storm events. Soils in the study area were found to be failing land health standards in a recent land health assessment. The study site is located in salt desert shrub with soil electrical conductivity measurements ranging from 4-8 decisiemens per meter.

In January of 2024, seed was aerially applied on 60 acres of snow-covered rangeland. Before application, the seed was inoculated with fungal dominate compost. The compost was prepared by mixing 1 pound of compost per gallon of non-chlorinated water. Each seed bag was dumped in a cement mixer with a gallon of compost slurry to fully inoculate the seed, then the slightly damp seed was loaded in the plane and aerially applied over the rangeland.

Vegetation monitoring was conducted to assess the effectiveness of prior treatments conducted in FY 2022. A total of 6 plots were established including 2 control points. Initial results found more perennial grass in all but one of the plots and more overall foliar cover compared to the control plots. There was also less bare ground in all of treatment plots compared to the control. Additional monitoring in the fall of 2024 and again in the fall of 2025 will provide more meaningful long-term results.

Horse Creek Headcut Stabilization: Horse Creek is located in the Willow Creek watershed, a tributary to the Colorado River. Work on Horse Creek in the Fall of 2023 consisted of treating two headcuts with rock and re-installing a culvert.

Erosion was also occurring around the culvert on both the upstream and downstream side. Some rock work was completed in 2023 to prevent additional erosion on the edges of the culvert as well as to lift the streambed elevation for fish passage.

In 2024, Work on Horse Creek primarily consisted of field visits and planning for the next phases of construction. Several meetings occurred late Winter/early Spring of 2024 with Trout Unlimited to identify restoration companies, restoration ideas, and restoration planning under the BLM's cooperative agreement with Trout Unlimited. A field visit was conducted May 2024 with Trout Unlimited, BLM Colorado staff (Colin Brady), as well as BLM NOC staff (Jedd Sondergard) and private restoration companies. The BLM will host a meeting with Trout Unlimited September 2024 to discuss restoration designs. Allen Haden with Natural Channel Design and Chris Pitcher with Southwest River Engineering will present ideas to the BLM and Trout Unlimited on how to treat headcuts in Horse Creek as well as restoration of areas that have become disconnected from the floodplain.

New Mexico

Farmington Field Office Sagebrush Vegetation Treatments: In FY 2024, the BLM obligated funding for 17,000 acres of tebuthiron herbicide treatments on sagebrush throughout the Farmington Field Office in the San Juan watershed. Work will begin in early October to reduce decadent sagebrush communities and to help re-establish more productive grasslands and reduce sediment and salt erosion.

San Juan Watershed Restoration Activities: In FY 2024, the BLM purchased seed for 422 acres of upland treatments and 7,462 acres of riparian treatments in the San Juan watershed. Field work is expected to begin in late fall 2024. The Farmington Field Office also cleaned out 10 earthen water storage tanks and plans to clean an additional 10 tanks. These earthen water storage tanks help trap sediment and salt during rain events. BLM staff have cable-fenced off 900 acres of urban interface in the recreation area to curtail and close illegal trail use and creation. Approximately 4 miles of illegal trails were closed, disked, and seeded.

Utah

Salinity Control Structure Maintenance in Gould Wash and Fort Pearce Watersheds: In FY 2024, the BLM worked to repair eight reservoirs within the St. George Field Office area. Work is being conducted in the Hurricane Fault Work Area located east of Hurricane, Utah. The Hurricane Fault is within the Gould Wash and Fort Pearce watersheds which drain directly into the Virgin River, a tributary to the Colorado River.

Grand Staircase-Escalante National Monument Salinity Control: In 2024, the BLM focused on large sediment structures located near Spencer Bench and Telegraph Flat areas in the Kanab Creek watershed. These structures were originally constructed in the late 1970s and have needed maintenance for many years. The BLM rented a loader and a dozer to move sediment and make the structures function properly. All sediment is removed from the channel and situated to minimize future input, mobilization, or salinization from future flood events.

Salinity Control Structure Maintenance in Kanab Creek and E. Fork Virgin River Watersheds: In FY 2024, the Kanab Field Office began cleaning out sediment control structures in the Glendale Bench Area and then moved to the Monument side of the area. A total of 9 structures were cleaned.

Monsoon Salinity Loads on BLM Land in Utah: The primary objective of this investigation is to improve estimates of salinity loads during high-flow hydrologic events, which would also improve estimates of total load, load partitioning, and load source fingerprinting. In FY 2024, Scott Hynek of the USGS presented preliminary findings at the BLM Salinity Symposium. A final report and paper will be published at the end of FY 2025.

San Juan Salinity and Sediment Monitoring near Bluff Utah: BLM Utah has partnered with the USGS Utah Water Science Center to collect sediment and flow data at the San Juan River Gauge. This project is being implemented in collaboration with other ongoing data collection and work being performed by the USGS Colorado Science Center and others for the overall long-term trends study in the Upper Colorado River Basin.

Wyoming

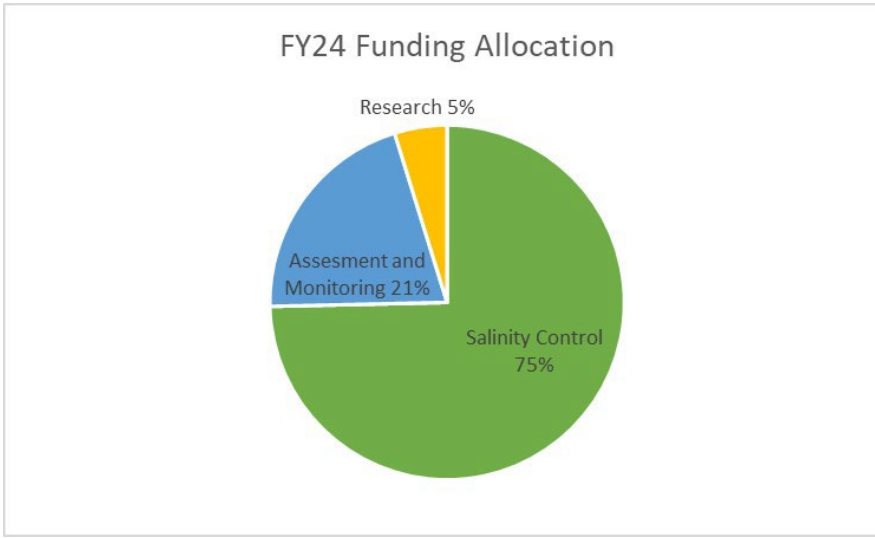
Savery Creek Restoration Project: Savery Creek is a major tributary to the Little Snake River, located within the Upper Colorado River watershed. The Savery Creek Restoration project is a cooperative effort between the BLM, the Wyoming Game and Fish Department, Trout Unlimited, and the Little Snake River Conservation District, and is a multi-year project covering approximately 4 stream miles that will be completed in 7 phases. Reaches of Savery Creek below High Savery Reservoir exhibit unstable channel characteristics including mass wasting on outside bends, excessive in-channel erosion, sedimentation, and large width to depth ratios. All of these factors contribute large amounts of sediment to downstream water bodies in the CRB. Cooperators proposes to implement natural channel design techniques on the target reaches to reduce in-channel erosion, sedimentation, and salinity loadings. Phase 1 and Phase 2 were completed in Fall 2019 and Fall 2020. In FY 2024, a new agreement with Trout Unlimited was awarded. Construction on Phases 3 and 4 will begin in the Fall of 2024.

Muddy Creek Habitat Improvement: Muddy Creek is a major tributary to the Little Snake River within the Colorado River Basin. Historically, Muddy Creek has experienced typical degradation seen in arid streams as a result of historic intensive grazing practices and other anthropogenic impacts, exhibiting miles of incised channels in varying degrees of recovery. The upper portion of the watershed has been the focus of multiple restoration projects, barrier removals, and fish habitat treatments over the past few decades. To expand upon previous work, target new reaches, and improve stream health and watershed resiliency, the BLM and Trout Unlimited have begun a large watershed-scale restoration project using low-tech process-based restoration methods (e.g., beaver dam analogs [BDAs], post assisted log structures [PALS], and Zeedyk structures). In FY 2024, funds were used to purchase materials, including untreated wood posts, fencing materials for riparian exclosures, and riparian plantings to implement this project. Work has taken place to micro-site structure locations, collect geomorphic and biological data for pre/post project analysis, and delineate wetlands for permitting requirements. The following structures were constructed in 2024: Confluence reach includes 66 BDAs and 39 PALS; Upper Muddy Creek reach includes 16 BDAs and 11 PALS.

Summary

In FY 2024, the BLM continued to construct, maintain, and repair salinity and sediment and control structures, stabilize erosion on saline soils, restore degraded aquatic habitat, monitor and assess non-point sources of salt and sediment, and support projects that will improve the effectiveness of salinity control activities in the Colorado River Basin. The figure below summarizes the percentage of FY 2024 funding allocated toward these activities.

Figure 23. Percentage of funding allocated towards salinity control, assessment and monitoring, and research activities in FY 2023.



NATURAL RESOURCES CONSERVATION SERVICE SALINITY CONTROL PROGRAM

The NRCS of the USDA conducts CRB Salinity Control Program activities primarily under the authorities of the Environmental Quality Incentives Program (EQIP). EQIP was authorized by the 1985 Food Security Act (1985 Farm Bill) but received its first appropriation with passage of PL104-127, Federal Agricultural Improvement Act of 1996, a.k.a. "1996 Farm Bill."

EQIP has been reauthorized four times; (1) PL 107-171, The Farm Security and Rural Investment Act of 2002, (2) PL 110-246, The Food, Conservation, and Energy Act of 2008, and (3) PL 113-79, The Agricultural Act of 2014, and most recently (4) PL 115-334, The Agriculture Improvement Act of 2018 enacted on December 20, 2018.

Through EQIP, NRCS offers voluntary technical and financial assistance to agricultural producers, including Native American tribes, to assist decision-makers to install conservation practices that correct environmental problems and that meet their environmental goals. Within the twelve salinity project areas, producers may be offered additional financial incentives and technical assistance to implement salinity control measures with the primary goal of reducing offsite and downstream damages to the Colorado River and its tributaries and to replace wildlife habit impacted as a result of the salinity measures.

In the past, progress in implementing salinity controls within established salinity control units (Units) was controlled primarily by annual federal appropriations. In recent years funding levels have generally been adequate to fund applications for initial treatment within established units with additional funds being expended to upgraded systems previously implemented under the SCP which have reached their NRCS practice lifespan. Funding is likewise available for projects outside of established salinity control units (known as Tier II or Out of Project Area (OPA)).

The passage of the Agriculture Improvement Act of 2018 authorized NRCS to work directly with Water Management Entities (WMEs). Previously NRCS was restricted to working with individual producers resulting in a relatively well-defined division of responsibility for salinity control. The Bureau of Reclamation (BOR) was primarily responsible for off-farm measures while NRCS was primarily responsible for on-farm irrigation improvements and near-farm conveyances. It was initially anticipated that there would be significant interest in NRCS funding for WME sponsored projects, however, interest has been somewhat subdued thus far.

NRCS is also authorized under the authorization of PL-566, The Watershed Protection and Flood Prevention Act of 1954, to develop and implement

watershed scale plans including certain Agricultural Water Management and Water Quality practices that are supportive of the salinity control program. Similarly, the Resource Conservation Partnership Program authorizes NRCS to fund conveyance improvements. NRCS is currently developing PL-566 and RCPP plans within existing Units that will pipe canals and facilitate on-farm practices. NRCS and BOR are collaborating on this effort to ensure effective cooperation.

Following are fund allocations to the NRCS Salinity Control Program for FY 2024.

Allocation	
Colorado -	$5,400,000
Utah -	$5,887,598
Wyoming -	$400,000
Totals	$11,687,598

Due to some late deferrals and cancelations of applications, NRCS Utah anticipates returning approximately $912,886 of the allocated funds. NRCS Colorado anticipates obligation of $5,242,902 of the allocated funds. Wyoming anticipates obligating $127,182.00. Through FY 2024 NRCS has obligated a total of $459M in Financial Assistance and an expended an estimated $192M in Technical Assistance to salinity control measures.

Program History

The Salinity Control Act provides funds for additional implementation from the Basin States Salinity Program. From the 1970s through 1986, the Agricultural Conservation Program (ACP) administered by the Agricultural Stabilization and Conservation Service (ASCS) provided financial assistance (cost share) to land users through long term agreements (LTAs) and the Soil Conservation Service (SCS) provided the technical assistance to plan, design, and certify practice implementation.

From 1987 through 1996, the Colorado River Salinity Control Program (CRSCP) received dedicated annual funding, again with the ASCS administering the financial assistance and SCS providing the technical assistance. In 1995, Public Law 103-354 authorized the reorganization of several agencies of USDA. The ASCS was reorganized as the Farm Service Agency. The SCS was reorganized as the NRCS. Financial administration of the CRSCP was transferred to the NRCS where it has remained to the present.

The Federal Agricultural Improvement and Reform Act (FAIRA) of 1996 (Public Law 104127) combined four existing programs including the CRBSCP into the newly authorized EQIP. Since the 1996, EQIP has been reauthorized through five consecutive farm bills and is currently authorized through FY 2024.

In FY 1997, Reclamation began on-farm cost sharing from the Basin States funds that would parallel and supplement the EQIP.

NRCS nominal annual expenditures on salinity control are presented in Table 18. Figures provided for Basin States, EQIP, CRB SCP, and ACP are for Financial Assistance.

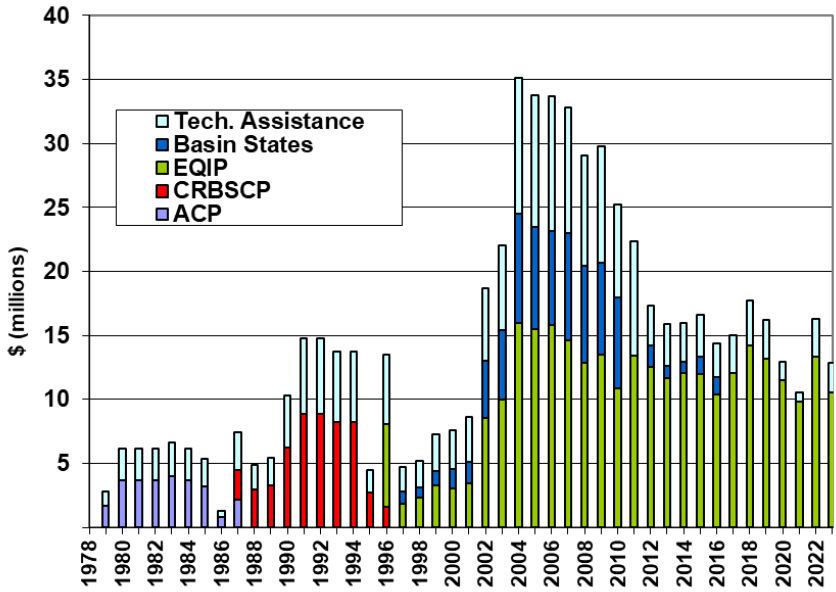


Figure 16. On-farm/Near-fam allocations for salinity control expenditures

Monitoring and Evaluation

NRCS personnel from project and area offices monitor and evaluate the effectiveness and quantity of salinity control, wildlife habitat, and economic trends in order to improve overall performance and management of the program. The program continues to function effectively and economically, though the nominal cost per ton of salt control is escalating in some areas. Cost escalation is believed to result from project selection processes that favor the most cost-effective salinity control measures.

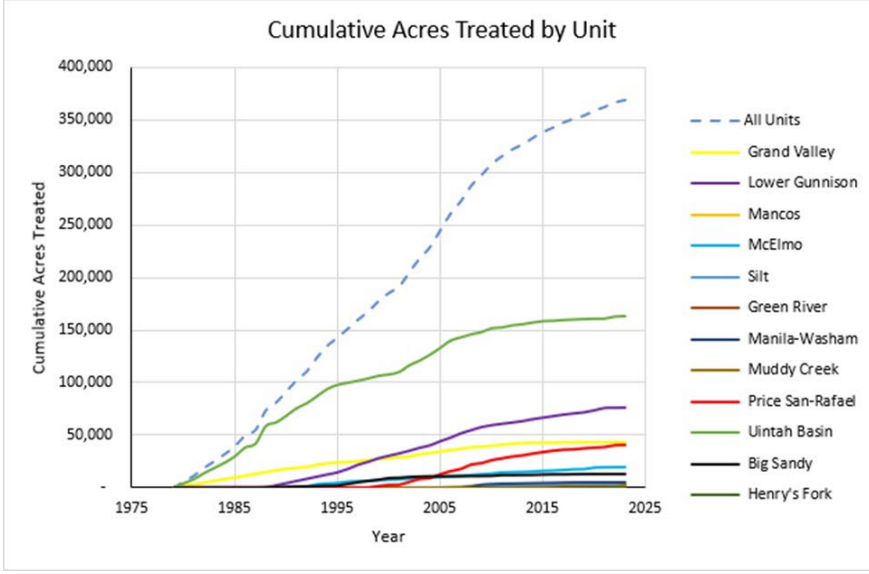
Annual Monitoring and Evaluation Reports are produced by NRCS staff. The FY 2020 report is available at:

https://www.nrcs.usda.gov/programs-initiatives/colorado-river-basin-salinity-project

Status of Planning and Implementation

Through FY 2022 NRCS has funded installation of approximately 367,000 acres for the purpose of salinity control (See Figure 2). NRCS continues to provide technical and financial assistance to landowners and operators to implement on-farm salinity control measures in ten approved project areas in three Upper Basin states.

Table 17. Cumulative acres treated for salinity control by project area, through FY 2023.



Grand Valley, Colorado

Implementation has been underway in this unit since 1979 and NRCS considers that the salt control measures of the project have been successfully completed as planned. In 2010, a status report was compiled from field visits and observations. The report indicated that at least 12,000 irrigated acres are no longer in agricultural production. Of the remaining 44,700 acres still in production, 42,435 acres or 95% had received varying levels of treatment. This unit has been designated as complete, but additional implementation continues at a reduced rated. No new contracts were obligated in FY 2024.

Lower Gunnison Basin, Colorado

This project, which began in 1988, encompasses the irrigated farmland in the Gunnison and Uncompahgre River valleys. The Unit was expanded into the upper

headwaters of the Uncompahgre River in 2010. Implementation continues in Delta, Montrose, and Ouray Counties. In 2024, about $2.85M were obligated into 22 new contracts to treat 1287 tons of salt on 1,039 acres on-farm. There were five new wildlife habitat contracts obligated on 40 acres.

Mancos Valley, Colorado

This project, near the town of Mancos, Colorado, was initiated and approved for funding and implementation by USDA-NRCS in April 2004. In 2024 two new EQIP contracts were developed for $95,959. to control 50 tons of salt on 8 acres. There were no new wildlife habitat contracts obligated.

McElmo Creek, Colorado

Implementation was initiated in this unit in 1990. In 2024, 18 new contracts were developed for $1.27M to control 470 tons of salt on 740 acres. There were no new wildlife habitat contracts obligated.

Silt, Colorado

The Silt Project, authorized in 2006, is Colorado's newest project. In 2024, one new contract was developed for $22,140 to control 3.5 tons of salt on 4.2 acres. There were no new wildlife habitat contracts obligated.

Green River, Utah

In 2024, one new contract were developed for $148,601 to control 304 tons of salt on 94 acres. There were no new wildlife habitat contracts obligated.

Manila-Washam, Utah

In 2024, Two new contract were obligated for $167,809. When implemented, these measures will control about 182 tons on 75.4 acres. There were no new wildlife habitat contracts obligated.

Muddy Creek, Utah

In 2024, 1 new contract was obligated for about $39,879. When implemented this project will control 7.8 tons on 40.8 acres. The canals and appurtenant delivery systems to Muddy Creek have been installed through various State, Local, and Federal funding sources. Interest for on-farm improvements in Muddy Creek is strong and completion of improvements to the delivery system is expected to facilitate a rapid conversion of the entire unit from flood to sprinkler irrigation. NRCS anticipates completion of the majority of the work in the Muddy Creek Unit within the next five years. There were no new wildlife habitat contracts obligated.

Price-San Rafael, Utah

The original salt control goal established by the 1993 EIS has been reached and applications for flood to sprinkler conversion have begun to decline. There has been an increase in interest for upgrades and replacements for projects past their lifespan. In 2024, 23 new contracts were obligated for a sum of $990,588. When implemented, these measures will control about 601 tons on 967 acres. There were no new wildlife habitat contracts obligated in 2024.

Uintah Basin, Utah

Implementation began in this unit in 1980. The original salt control goal was reached several years ago but about 60,000 acres might still be improved. Producer participation has exceeded the original projections. In 2024, 33 new contracts were obligated for a sum of about $3.06M. When implemented, these measures will control about 613.3 tons on 1182.5 acres and 1.9 tons on near farm laterals. There were no new wildlife habitat contracts obligated in 2024.

Big Sandy River, Wyoming

Implementation has been underway in this unit since 1988. Approximately 13,800 acres of the planned 15,700 acres have been treated (88 percent) and about 71 percent of the salt control goal has been reached. No new contracts were obligated in the Big Sandy Unit. Remaining untreated acres are largely controlled by producers not interested in implementing salinity controls, so salinity funds were not allocated to the Big Sandy Unit in 2024.

Henrys Fork (of the Green River), Wyoming

The Henrys Fork Project was officially adopted with the issuance of the Record of Decision, June 2013. In 2024, one new contract was obligated in the Henrys Fork Project Area for a cost of $127,182.00 that will control 95.5 tons of salts. There were no new wildlife habitat contracts obligated.

San Juan Basin, New Mexico and Arizona

The San Juan River Dineh Water Users, Inc. has developed considerable irrigation infrastructure but has not been active in the CRBSCP. While NRCS has never designated this area a salinity control project there is hope that the improvement of delivery infrastructure will spur on-farm irrigation improvements.

Areas Beyond Current Project Boundaries

Even though some relatively high salt loading basins exist in both Colorado and New Mexico, local sponsors have not yet been inclined to pursue a salinity project designation.

NRCS continues to have success in funding salinity control practices outside of its designated project areas but within the CRB (known as Tier II projects). In 2024, Colorado NRCS obligated 10 Tier II contracts on 211.3 acres to control 531.5 tons of salt at a cost of $753,482. Utah and Wyoming NRCS obligated no Tier II contracts.

Table 18. Implementation Status (October 1, 2023).

Table 1. Implementation Status (October 1, 2023).

			Irrigated Acres	Treated Acres	EIS Goal (tons)	On-Farm Controls (tons)	Off-Farm Controls (tons)	[1]Total Tons Controlled	Indexed Initial Cost ($/ton)	Nominal 2023 Cost ($/ton)
Colorado	Grand Valley	1977	44,600	43,449	132,000	137,597	7,134	144,731	$62	$0
	Lower Gunnison	1982	171,000	76,563	186,000	107,585	24,080	131,665	$103	$74
	McElmo Creek	1989	29,000	19,401	46,000	29,471	2,999	32,470	$117	$225
	Mancos Valley	2004	11,700	3,249	11,940	2,649	2,119	4,768	$79	$308
	Silt	2005	7,400	1,952	3,990	1,504	917	2,422	$110	$2,603
Utah	Uintah Basin	1982	226,000	164,273	140,500	144,649	10,077	154,726	$210	$361
	Price-San Rafael	1997	66,000	39,996	146,900	96,787	1,553	98,340	$43	$50
	Manila-Washam	2005	8,000	4,152	17,430	8,949	0	8,949	$63	$90
	Muddy Creek	2004	6,000	2,905	11,677	3,939	1,077	5,016	$114	$102
	Green River	2009	2,600	931	6,540	2,866	0	2,866	$123	$56
Wyoming	Big Sandy River	1988	18,000	13,933	83,700	58,654	114	58,768	$47	$0
	Henrys Fork	2013	20,700	370	6,540	299	0	299	$280	$0
Tier II	(all)		0	1,454	0	7,971	1,171	7,896	$0	$294

Upper Colorado River Commission

APPENDIX A
Annual Financial Report

For the Fiscal Year Ended
June 30, 2024

Upper Colorado River Commission

Annual Financial Report

With Auditors' Report Thereon

Year Ended June 30, 2024

Upper Colorado River Commission

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Ulrich & Associates, PC
Certified Public Accountants

INDEPENDENT AUDITORS' REPORT

The Commissioners of the Upper Colorado River Commission
Salt Lake City, Utah

Report on the Audit of Financial Statements

Opinions

We have audited the accompanying financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of the Upper Colorado River Commission, as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise the Upper Colorado River Commission's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, each major fund, and the aggregate remaining fund information of the Upper Colorado River Commission, as of June 30, 2024, and the respective changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Upper Colorado River Commission and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Upper Colorado River Commission's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Upper Colorado River Commission's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Upper Colorado River Commission's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison information be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Upper Colorado River Commission's basic financial statements. The accompanying combining and individual nonmajor fund financial statements and schedule of expenditures of federal awards, as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual nonmajor fund financial statements and the schedule of expenditures of federal awards are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 27, 2024, on our consideration of the Upper Colorado River Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Upper Colorado River Commission's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Upper Colorado River Commission's internal control over financial reporting and compliance.

Ogden, Utah

November 27, 2024

The overall assets of the Commission exceed its liabilities by $2,633,344, a decrease of $412,597 over the prior year. The decrease is due to the System Conservation Pilot Program grant funds received in the prior year being expended in the current year.

Report Layout

Besides this Management's Discussion and Analysis (MD&A), the report consists of government-wide statements, fund financial statements, and the notes to the financial statements. The first two statements are condensed and present a government-wide view of the Commission's finances. Within this view, all Commission operations are categorized and reported as governmental activities. Governmental activities include basic services and administration. The Commission does not have any business-type activities. These government-wide statements are designed to be more corporate-like in that all activities are consolidated into a total for the Commission.

The Statement of Net Position focuses on resources available for future operations. In simple terms, this statement presents a snap-shot view of the assets the Commission, the liabilities it owes and the net difference. The net difference is further separated into amounts restricted for specific purposes and unrestricted amounts.

The Statement of Activities focuses gross and net costs of the Commission's programs and the extent to which such programs rely upon general revenues. This statement summarizes and simplifies the user's analysis to determine the extent to which programs are self-supporting and/or subsidized by general revenues.

The notes to the financial statements provide additional disclosures required by governmental accounting standards and provide information to assist the reader in understanding the Commission's financial condition.

The MD&A is intended to explain the significant changes in financial position and differences in operation between the current and prior years. Significant changes from the prior year are explained in the following paragraphs.

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Commission as a Whole

Government-wide Financial Statements

A condensed version of the Statement of Net Position follows:

Net Position at Year-end
June 30

	2024	2023
Cash & investments	$ 2,275,312	$ 2,356,829
Capital assets (net)	868,662	844,931
Total assets	3,143,974	3,201,760
Current liabilities	488,605	134,630
Non-current liabilities	22,025	21,189
Total liabilities	510,630	155,819
Net position:		
Net investment in capital assets	868,662	844,931
Restricted -demand management	-	20,799
Restricted - scpp	817,798	1,209,077
Unrestricted	946,884	971,134
Total net position	$ 2,633,344	$ 3,045,941

During the year ended June 30, 2024, the change in net position was due to expenditures related to grant programs.

A condensed version of the Statement of Activities follows:

Governmental Activities
For the year ended June 30

	2024	2023
Revenues		
State Assessments	$ 582,341	$ 582,341
Grants and Contributions	27,438,814	9,795,860
General Revenues		
Interest	45,579	42,773
Total Revenues	28,066,734	10,420,974
Expenses		
Administration	5,383,598	1,372,201
SCPP	23,095,733	7,990,923
Total Expenses	28,479,331	9,363,124
Change in net position	(412,597)	1,057,850
Beginning net position (as adjusted)	3,045,941	1,988,091
Ending net position	$ 2,633,344	$ 3,045,941

The System Conservation Pilot Program revenues and expenditures increased during the year. Expenditures of prior years unspend grant funds was the reason for the decrease in net position.

Capital Assets

At June 30, 2024 the Commission had $868,662 invested in capital assets, consisting primarily of an office condo, furniture & equipment. The change in capital assets during the year consisted of the purchase of new meeting equipment for the office.

Capital Assets at Year-end

	2024	2023
Building	$ 925,789	$ 882,960
Furniture & equipment	24,392	16,216
Subtotal	950,181	899,176
Less: Accumulated Depreciation	(81,519)	(54,243)
Capital assets, net	$ 868,662	$ 844,933

Financial Contact

The Commission's financial statements are designed to present users (citizens, taxpayers, state governments) with a general overview of the Commission's finances and to demonstrate the Commission's accountability. If you have questions about the report or need additional financial information, please contact the Commission's secretary at 50 South 600 East, Salt Lake City, UT 84102.

Basic Financial Statements

Upper Colorado River Commission
Statement of Net Position
June 30, 2024

	Governmental Activities
Assets	
Cash & cash equivalents	
Operations	$ 1,389,028
Unpaid leave	45,486
Restricted cash	
Demand management	840,798
Capital assets	
Building	925,789
Furniture & equipment	24,392
Less: accumulated depreciation	(81,519)
Total Assets	3,143,974
Liabilities	
Accounts payable	478,037
Accrued payroll liabilities	10,568
Total current liabilities	488,605
Noncurrent liabilities:	
Accrued compensated absences	22,025
Total noncurrent liabilities	22,025
Total Liabilities	510,630
Net Position	
Net investment in capital assets	868,662
Restricted - SCPP	817,798
Unrestricted	946,884
Total Net Position	$ 2,633,344

See accompanying notes to the basic financial statements

Upper Colorado River Commission
Statement of Activities
For the Year ended June 30, 2024

	Expenses	Program Revenues: Charges for services	Program Revenues: Operating grants and contributions	Net Revenue and Changes in Net Position: Total
Governmental activities:				
General administration	$ 5,383,598	-	5,316,701	(66,897)
SCPP	23,095,733	-	22,704,454	(391,279)
Total governmental activities	$ 28,479,331	-	28,021,155	(458,176)
General revenues:				
Interest				45,579
Total general revenues				45,579
Change in Net Position				(412,597)
Net Position - beginning of year				3,045,941
Net Position - end of year				$ 2,633,344

See accompanying notes to the basic financial statements

Upper Colorado River Commission
Balance Sheet
Governmental Funds
June 30, 2024

	General Fund	SCPP Fund	Total Government Funds
Assets			
Petty cash	$ 25	-	$ 25
Cash in bank	122,642	-	122,642
Utah public treasurers' investment pool			
Operations	1,266,361	-	1,266,361
Unpaid leave	45,486	-	45,486
	1,434,514	-	1,434,514
Restricted Cash			
Cash in bank	23,000	817,798	840,798
Total Assets	1,457,514	817,798	2,275,312
Liabilities			
Accounts payable	478,037	-	478,037
Accrued payroll liabilities	10,568	-	10,568
Prepaid assessments	-	-	-
Total Liabilities	488,605	-	488,605
Fund Balance			
Restricted - SCPP	-	817,798	817,798
Assigned to:			
Unpaid leave	45,486	-	45,486
Unassigned	923,423	-	923,423
Total Fund Balance	968,909	817,798	1,786,707
Total Liabilities and Fund Balance	$ 1,457,514	817,798	$ 2,275,312

Reconciliation of the Statement of Net Position to the Balance Sheet

Amounts reported for governmental activities in the statement of net position are different because:	
Total fund balance reported above	$ 1,786,707
Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds	868,662
Compensated absences are not due and payable in the current period and, therefore, are not reported in the funds	(22,025)
Net position of governmental activities (page 9)	$ 2,633,344

See accompanying notes to the basic financial statements

Upper Colorado River Commission

Statement of Revenues, Expenditures, and Changes in Fund Balance
Governmental Funds
For the Year Ended June 30, 2024

	General Fund	SCPP Fund	Total Government Funds
Revenues			
Assessments	$ 582,341	-	$ 582,341
Grants - Utah	-	104,454	104,454
Grants - New Mexico	184,360	-	184,360
Grants - BIL	4,500,000	-	4,500,000
Grants - IRA	-	22,600,000	22,600,000
Grants - Wyoming	50,000	-	50,000
Interest	45,579	-	45,579
Total Revenues	5,362,280	22,704,454	28,066,734
Expenditures			
Personnel services	617,940	240,310	858,250
Travel	42,803	-	42,803
Current operating	72,024	22,855,423	22,927,447
Capital outlay	5,221	-	5,221
Building related expenses	12,414	-	12,414
Grants - BIL	4,332,564	-	4,332,564
Grants - states	320,558	-	320,558
Total Expenditures	5,411,993	23,095,733	28,507,726
Net change in fund balance	(49,713)	(391,279)	(440,992)
Fund Balance - beginning of year	1,018,622	1,209,077	2,227,699
Fund Balance - end of year	$ 968,909	817,798	$ 1,786,707

Reconciliation of the Statement of Revenues, Expenditures and Changes in Fund Balances of Governmental Funds to the Statement of Activities	
Net change in fund balance (as reported above)	$ (440,992)
Governmental funds report capital outlays as expenditures. However, in the statement of activities, the cost of those assets is allocated over their estimated useful lives as depreciation expense. This is the amount by which capital outlays exceeded depreciation in the current period.	23,731
The expense for accrued compensated absences reported in the statement of activities does not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds.	4,664
Change in net position of governmental activities (page 10)	$ (412,597)

See accompanying notes to the basic financial statements

Upper Colorado River Commission
Statement of Revenues, Expenditures, and Changes in Fund Balance
Budget and Actual - General Fund
For the Year Ended June 30, 2024

	Original & Final Budget	Actual	Variance w/Final Budget
Revenues			
Assessments	$ 582,341	582,341	-
Grants - New Mexico	-	184,360	184,360
Grants - BIL	4,500,000	4,500,000	-
Grants - Wyoming	-	50,000	50,000
Interest	-	45,579	45,579
Total Revenues	5,082,341	5,362,280	279,939
Expenditures			
Personnel services	767,893	617,940	149,953
Travel	70,000	42,803	27,197
Current operating	65,000	72,024	(7,024)
Capital outlay	-	5,221	(5,221)
Contingencies	6,690	8,469	(1,779)
Building related expenses	6,140	12,414	(6,274)
Grants - BIL	4,500,000	4,332,564	167,436
Grants - states	-	320,558	(320,558)
Total Expenditures	5,415,723	5,411,993	3,730
Net change in fund balance	(333,382)	(49,713)	283,669
Fund Balance - beginning of year	1,018,622	1,018,622	-
Fund Balance - end of year	$ 685,240	968,909	283,669

See accompanying notes to the basic financial statements

Upper Colorado River Commission

Statement of Revenues, Expenditures, and Changes in Fund Balance
Actual and Budget - System Conservation Pilot Program
For the Year Ended June 30, 2024

	Original & Final Budget	Actual	Variance w/Final Budget
Revenues			
Grants - federal	$ 22,600,000	22,600,000	-
State Grant	-	104,454	104,454
Total Revenues	22,600,000	22,704,454	104,454
Expenditures			
Personnel	-	240,310	(240,310)
Operations	22,600,000	22,855,423	(255,423)
Total Expenditures	22,600,000	23,095,733	(495,733)
Excess of revenues under expenditures	-	(391,279)	(391,279)
Fund Balance - beginning of year	-	1,209,077	1,209,077
Fund Balance - end of year	$ -	817,798	(391,279)

See accompanying notes to the basic financial statements

Note 1 - Summary of Significant Accounting Policies

A. Reporting entity

The Commission was formed pursuant to the terms of the Upper Colorado River Basin Compact on October 11, 1948, and consented to by the Congress of the United States of America by Act on April 6, 1949, as an administrative agency representing the Upper Division States of the Colorado River Basin, namely Colorado, New Mexico, Utah, and Wyoming. The Commission consists of one commissioner representing each of the four states and one representing the United States of America. The activities of the commission are conducted for the purpose of promoting and securing agricultural and industrial development of the Upper Basin's water resources.

The Commission has no component units that are included with this report.

B. Basis of Presentation - Government-wide financial statements

While separate government-wide and fund financial statements are presented, they are interrelated. The governmental activities column incorporates data from the governmental fund. The Commission does not currently have any business-type activities.

C. Basis of Presentation - Fund financial statements

The fund financial statements provide information about the Commission's funds. Statements for the governmental fund category is presented. The emphasis of fund financial statements is on major governmental funds, each displayed in a separate column. The Commission has two governmental funds, General and System Conservation Pilot Program, and both are reported as major funds in the fund financial statements.

D. Measurement focus and basis of accounting

Government wide financial statements

The accounting and financial reporting treatment is determined by the applicable measurement focus and basis of accounting. Measurement focus indicates the type of resources being measured such as current financial resources or economic resources. The basis of accounting indicates the timing of transactions or events for recognition in the financial statements.

The government-wide statements are prepared using the *economic resources* measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

The governmental fund financial statements are reported using the current financial resources measurement focus and the *modified accrual basis of accounting.* Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the government considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting. However, debt service expenditures, as well as expenditures related to compensated absences, and claims and judgments, are recorded only when payment is due. General capital asset acquisitions are reported as expenditures in governmental funds. Issuance of long-term debt and acquisitions under capital leases are reported as other financing sources.

Note 1 - Summary of Significant Accounting Policies - continued

E. Budgetary Information

Annual budgets are prepared on the modified accrual basis of accounting and adopted as required by the compact. The Commission approves the annual budget in total and by major sub-items as identified in the statement of revenues, expenditures and changes in fund balance - budget and actual. The Executive Director has authority to transfer budget accounts within the sub-items with Commissioner approval required to transfer monies between expenditure categories. Currently no formal budget is adopted for the demand management program.

F. Assets, liabilities, deferred outflow/inflows of resources, and net position/fund balance

Cash & cash equivalents

The government's cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

Capital Assets and Depreciation

Capital assets, which include property and equipment, are reported in the governmental activities column in the government-wide financial statements. Capital assets are defined by the Commission as assets with an initial, individual cost of more than $1,000 and an estimated useful life in excess of one year.

Depreciation of capital assets is computed and recorded by the straight-line method. Estimated useful lives of the various classes of depreciable capital assets are as follows: buildings, 40 years; improvements, 10 to 15 years; furniture and equipment, 3 to 15 years.

Fund balance policies

Fund balance of governmental funds is reported in various categories based on the nature of any limitations requiring the use of resources for specific purposes. The Commission itself can establish limitations on the use of resources through either a commitment (committed fund balance) or an assignment (assigned fund balance).

Net Position / Fund Balance

Government-wide Financial Statements

Equity is classified in the government-wide financial statements as net assets and can be displayed in three components:

Net investment in capital assets - Capital assets including restricted assets, net of accumulated depreciation and reduced by any debt related to the acquisition or improvement of the assets.

Restricted net position - Net position with constraints placed on the use either by (1) external groups or (2) law through constitutional provisions or enabling legislation.

Unrestricted net position - All other net positions that do not meet the definition of "restricted" or "net investment in capital assets."

Note 1 - Summary of Significant Accounting Policies - continued

Fund Financial Statements

In the fund financial statements, governmental fund equity is classified as fund balance. Fund balance is further classified as Nonspendable, Restricted, Committed, Assigned, or Unassigned. Description of each classification is as follows:

Nonspendable fund balance - Amounts that cannot be spent because they are either (a) not in spendable form, or (b) legally or contractually required to be maintained intact.

Restricted fund balance - Amounts restricted by enabling legislation. Also if, (a) externally imposed by creditors, grantors, contributors, or laws and regulations of other governments, or (b) imposed by law through constitutional provisions or enabling legislation.

Committed fund balance - Amounts that can only be used for specific purposes pursuant to constraints imposed by formal action of the Commission's highest level of decision making authority.

Assigned fund balance - Amounts that are constrained by the Commission's intent to be used for specific purposes, but are neither restricted nor committed.

Unassigned fund balance - Residual classification of the General Fund. This classification represents fund balance that has not been restricted, committed, or assigned specific purposes within the general fund.

G. Unpaid Compensated Absences

According to Commission policy each employee accrues annual leave based on years of service with the commission. Employees may accumulate a maximum of 30 days of unused annual leave, which is paid in cash upon termination of employment. The Commission's secretary may grant additional carryover to employees provided that: (1) the employee requests the carryover in writing prior to June 30, and (2) the employee uses the additional carryover within 90 days of the start of the fiscal year.

The Obligation for Compensated Absences has been broken down into two components; current and non-current. The current portion is classified as part of the general fund and is an estimate of the amounts that will be paid within the next operating year. The non-current portion is maintained separately and represents a reconciling item between the fund and government-wide presentations.

Note 2 - Stewardship, compliance, and accountability

Accounting and Reporting

The Commission is not required to report to any individual state or federal agency, except for single audit when applicable. Financial reports are given to each Commissioner and is reviewed by them. The Commission is exempt from federal income tax reporting under 501(c) (1) of the internal revenue code.

Note 3 - Detail notes on all activities and funds

Deposits and investments

The Commissioners have authorized the Commission to deposit funds in demand accounts at Wells Fargo Bank and with the Utah Public Treasurers' Investment Pool. Following are discussions of the Commission's exposure to various risks related to its cash management activities.

Deposits

Custodial credit risk - Deposits. In the case of deposits, this is the risk that in the event of a bank failure, the government's deposits may not be returned to it. As of June 30, 2024, $250,000 of the cash balance of $1,593,675 is insured.

Investments

The Utah State Treasurer's Office operates the Public Treasurers' Investment Fund (PTIF). The PTIF is available for investment of funds administered by any Utah public treasurer and is not registered with the SEC as an investment company. The PTIF is authorized and regulated by the Money Management Act (Utah Code, Title 51, Chapter 7). The Act established the Money Management Council which oversees the activities of the State Treasurer and the PTIF and details the types of authorized investments. Deposits in the PTIF are not insured or otherwise guaranteed by the State of Utah, and participants share proportionally in any realized gains or losses on investments.

The PTIF operates and reports to participants on an amortized cost basis. The income, gains, and losses of the PTIF, net of administration fees, are allocated based upon the participant's average daily balance. The fair value of the PTIF investment pool is approximately equal to the value of the pool shares.

Fair Value of Investments - The Commission measures and records its investments using fair value measurement guidelines established by generally accepted accounting principles. These guidelines recognize a three-tiered fair value hierarchy, as follows:

Level 1: Quoted prices for identical investments in active markets;
Level 2: Observable inputs other than quoted market prices; and,
Level 3: Unobservable inputs.

	Fair Value		
Investments by fair value level	Level 1	Level 2	Level 3
Utah Public Treasurers' Investment Fund	$ -	1,311,847	-
Total investments measure at fair value	$ -	1,311,847	-

• Utah Public Treasurers' Investment Fund: application of the June 30, 2024 fair value factor, as calculated by the Utah State Treasurer, to the Entity's average daily balance in the Fund.

Note 3 - Detail notes on all activities and funds - continued

Interest rate risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Commission's policy for managing its exposure to fair value loss arising from increasing interest rates is to invest only with the Utah PTIF.

As of June 30, 2024, the Commission's investments had the following maturities:

	Investment Maturities (in years)		
Investment Type	Less than 1	1-5	6 or more
Utah Public Treasurers' Investment Fund	$ 1,311,847	-	-
Total investments measure at fair value	$ 1,311,847	-	-

Credit risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Commission's policy for reducing its exposure to credit risk is to comply with the State's Money Management Act, as previously discussed.

	Quality Ratings		
Investment Type	AA	A	Unrated
Utah Public Treasurers' Investment Fund	$ -	-	1,311,847
Total investments measure at fair value	$ -	-	1,311,847

Concentration of credit risk. The Commission's investment in the Utah Public Treasurer's Investment Fund has no concentration of credit risk.

Custodial credit risk - Investments. For an investment, this is the risk that, in the event of the failure of the counterparty, the Commission will not be able to recover the value of its investments that are in the possession of an outside party. The Commission is authorized to invest in the Utah Public Treasurer's Investment Fund (PTIF), an external pooled investment fund managed by the Utah State Treasurer and subject to the Act and Council requirements. The PTIF is not registered with the SEC as an investment company, and deposits in the PTIF are not insured or otherwise guaranteed by the State of Utah. The PTIF operates and reports to participants on an amortized cost basis. The income, gains, and losses, net of administration fees, of the PTIF are allocated based upon the participants' average daily balances.

Components of deposits and investments (including interest earning deposits) at June 30, 2024, are as follows:

Cash on deposit	$ 122,667
Utah State Treasurer's Investment Pool	1,311,847
Restricted cash	840,798
Total	$ 2,275,312

Note 3 - Detail notes on all activities and funds - continued

Capital Assets

Capital asset activity for the year ended June 30, 2024, is as follows:

	Balance at June 30, 2023	Additions	Disposals	Balance at June 30, 2024
Capital assets being depreciated:				
Building	$ 882,960	42,829	-	925,789
Furniture & Equipment	16,214	8,178	-	24,392
Total capital assets being depreciated	899,174	51,007	-	950,181
Less accumulated depreciation for:				
Building	45,988	22,968	-	68,956
Furniture & Equipment	8,255	4,308	-	12,563
Total accumulated depreciation	54,243	27,276	-	81,519
Total capital assets, being depreciated, net	844,931	23,731	-	868,662
Capital assets, net	$ 844,931	23,731	-	868,662

Depreciation expense of $27,276 was charged to the general administration activity of the Commission.

Note 4 - Other notes

Employee Retirement Plan

The Commission's employee pension plan is a 401(K) defined contribution plan which covers all of the present employees. The Commission contributes 7% of the employees' gross salaries. In addition, the Commission will match contributions made by employees up to a maximum of 3%. Accordingly, the maximum allowable contribution by the Commission is 10%. The employees are allowed to contribute up to the maximum allowed by law. The employer's share of the pension plan contribution for the year ended June 30, 2024 was $38,730.

Risk Management

The Commission is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; and natural disasters for which the government carries commercial insurance.

Subsequent Events

Subsequent events have been evaluated through November 27, 2024 the date the financial statements were available to be issued. There have been no subsequent events that provide additional evidence about conditions that existed at the date of the balance sheet.

Supplemental Schedules

Upper Colorado River Commission
General Fund
Supplemental Schedule of Cash Receipts and Disbursements
For the Year Ended June 30, 2024

Cash at June 30, 2023		$ 1,147,752
Cash Receipts:		
Assessments	557,341	
Interest and refunds	45,577	
Grant - States	234,360	
Grant - BIL	4,500,000	
		5,337,278
Cash Disbursements:		
Personnel Services	631,561	
Travel	47,966	
Current Operating	71,626	
Capital Outlay	5,221	
Building related expense	12,414	
Grants	4,250,259	
		5,027,516
Cash at June 30, 2024		$ 1,457,514

Upper Colorado River Commission
General Fund
Detail of Personal Services and Current Operating Expenditures - Budget to Actual (Accrual Basis)
For the Year Ended June 30, 2024

	Budget	Actual	Variance w/Final Budget
Summary of Personnel Services with Budget Comparisons			
Salaries/wages	$ 584,873	503,253	81,620
Social security	30,030	26,879	3,151
Pension fund contributions	46,490	27,886	18,604
Employee medical insurance	106,500	59,922	46,578
	$ 767,893	617,940	149,953
Summary of Current Operating Expenditures with Budget Total Comparison			
Overall budgeted expenses	$ 65,000		
Audit and accounting		$ 11,345	
Building repair & maintenance		11,970	
Insurance		2,932	
Janitorial		2,784	
Library		535	
Meetings, including reporter		11,453	
Memberships and registrations		3,160	
Office supplies and postage		3,576	
Pension Plan Maintenance		10,572	
Printing		3,078	
Telephone		6,093	
Utilities		4,526	
	$ 65,000	72,024	(7,024)

Other Reports

Ulrich & Associates, PC
Certified Public Accountants

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

The Commissioners of the Upper Colorado River Commission
Salt Lake City, Utah

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the governmental activities of the Upper Colorado River Commission, as of and for the year ended June 30, 2024, and the related notes to the financial statements, which collectively comprise Upper Colorado River Commission's basic financial statements, and have issued our report thereon dated November 27, 2024.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Upper Colorado River Commission's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Upper Colorado River Commission's internal control. Accordingly, we do not express an opinion on the effectiveness of Upper Colorado River Commission's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether Upper Colorado River Commission's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Ulrich & Associates, P.C.

Ogden, Utah

November 27, 2024

Ulrich & Associates, PC
Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE

The Commissioners of the Upper Colorado River Commission
Salt Lake City, Utah

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited Upper Colorado River Commission's compliance with the types of compliance requirements identified as subject to audit in the OMB *Compliance Supplement* that could have a direct and material effect on each of Upper Colorado River Commission's major federal programs for the year ended June 30, 2024. Upper Colorado River Commission's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

In our opinion, Upper Colorado River Commission complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2024.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of Upper Colorado River Commission and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of Upper Colorado River Commission's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to Upper Colorado River Commission's federal programs.

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on Upper Colorado River Commission's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment

made by a reasonable user of the report on compliance about Upper Colorado River Commission's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding Upper Colorado River Commission's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of Upper Colorado River Commission's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of Upper Colorado River Commission's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on Internal Control over Compliance

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Ogden, Utah
November 27, 2024

Upper Colorado River Commission
Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2024

Federal Grantor/Pass-Through Grantor/Program	Federal Assistance Listing Number	Pass-through Entity Identifying Number	Grant Expend-itures	Expenditures to Sub recipients
U.S. Department of the Interior				
Bureau of Reclamation				
System Conservation Pilot Program	15.514	R23AP00302-00	$ 23,095,733	n/a
Drought Contingency Plan Implementation Activities	15.567	R23AP00295-02	4,332,564	n/a
To :al U.S. Department of the Interior			27,428,297	n/a
		Total federal expenditures	$ 27,428,297	n/a

Upper Colorado River Commission
Notes to the Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2024

Note 1 - Purpose of this Schedule

The accompanying Schedule of Expenditures of Federal Awards (Schedule) is a supplementary schedule of the Upper Colorado River Commission's general purpose financial statements and is presented for purposes of additional analysis. Because the schedule presents only a select portion of the activities of Upper Colorado River Commission, it is not intended to and does not present the financial position, changes in net position or the revenues or expenditures of Upper Colorado River Commission. The schedule is required by Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance).

Note 2 - Significant Accounting Policies

A. Basis of Presentation

The information is presented in accordance with the Uniform Guidance and in accordance with accrual basis of accounting.

Federal Awards - Pursuant to the Uniform Guidance, federal awards are defined as assistance provided by a federal agency, either directly or indirectly, in the form of grants, contracts, cooperative agreements, loans, loan guarantees, property, interest subsidies, insurance, or direct appropriations. Accordingly, non-monetary federal awards, including federal surplus property, is included in federal awards and, therefore, is reported on the Schedule. Federal awards do not include direct federal cash assistance to individuals.

Type A and Type B Programs - The Uniform Guidance establishes the levels of expenditures or expenses to be used in defining Type A and Type B federal awards programs. Type A program threshold in during the year was $822,850.

B. Reporting Entity

The reporting entity is fully described in the footnotes of Upper Colorado River Commission's financial statements. The schedule includes all federal awards programs administered by Upper Colorado River Commission for the year ended June 30, 2024.

C. Basis of Accounting

The expenditures in the Schedule are recognized as incurred based on the accrual basis of accounting and the cost accounting principles contained in the Uniform Guidance. The information in the Schedule is presented in accordance with Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

Note 2 - Significant Accounting Policies (continued)

D. Assistance Listing Numbers

Uniform Guidance requires the Schedule to show the total expenditures for each of the entity's federal financial assistance programs as identified as Assistance Listing Numbers, formerly (CFDA). Each program is assigned a five-digit program identification number (AL Number).

E. Major Programs

The Uniform Guidance establishes a risk-based approach to be used in defining major federal financial programs. Major programs are identified in the schedule of findings and questioned costs.

F. Indirect Costs

The Commission does not use an indirect cost allocation.

G. Loan Programs

The Commission does not have any loan programs.

Upper Colorado River Commission
Schedule of Findings and Questioned Costs
For the Year Ended June 30, 2024

Section I - Summary of Auditors' Results

Financial Statements

Type of auditor's report issued:	Unmodified	
Internal control over financial reporting:		
-Material weaknesses identified	____ Yes	X No
-Significant deficiencies identified that are not considered to be Material weaknesses?	____ Yes	X No

Federal Awards

Internal control over major programs:		
-Material weaknesses identified	____ Yes	X No
-Significant deficiencies identified that are not considered to be Material weaknesses?	____ Yes	X No
Type of auditor's report issued on compliance for major programs:	Unmodified	
Any audit findings disclosed that are required to be reported in accordance with section *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Award* s.	____ Yes	X No

Identification of major programs:

Assistance Listing Number	Name of Federal Program
15.514	System Conservation Pilot Program
15.567	Drought Contigency Plan Implementation Activities

The dollar threshold for distinguishing Types A and B programs was $882,850.

Auditee qualified as low-risk auditee ____ Yes X No

Section II -Findings realted to financial statements required to be reported in accordance with *Government Auditing Standards.*

None

Section III - Federal Award Findings and Questioned Costs

None

Section IV - Prior Year Findings and Questioned Costs - Financial Statements in Accordance with Government Auditing Standards.

None

Section V - Prior Year Findings and Questioned Costs - Major Award Programs

None

Upper Colorado River Commission

APPENDIX B
Budget

For the Fiscal Year Ending
June 30, 2025

APPROVED FY2025 BUDGET
UPPER COLORADO RIVER COMMISSION
Fiscal Year ending June 30, 2025

Approved June 2024
Modified January 2025

Personnel Costs inc. Pension, Social Security, and Benefits	**$**	**867,290.00**
Travel	$	55,000.00
Current Expense	$	75,500.00
Capital Expenses	$	6,390.00
Contingency	$	6,690.00
Estimated Federal Grant Offset	$	(590,000.00)
Transfer of Operating Expense to Carryover	$	161,201.00
Total	**$**	**582,341.00**
2024 State Assessments		
Colorado - 51.75%	$	301,361.47
New Mexico - 11.25%	$	65,513.36
Utah - 23%	$	133,938.43
Wyoming - 14%	$	81,527.74
Total	**$**	**582,341.00**

Upper Colorado River Commission

APPENDIX C
Resolutions

For the Water Year Ending
Sept. 30, 2024

RESOLUTION
of the
UPPER COLORADO RIVER COMMISSION
honoring
ROLF SCHMIDT-PETERSEN

***WHEREAS**, Mr. Rolf Schmidt-Petersen worked at the New Mexico Interstate Stream Commission for 2 4 years, providing exceptional service in several capacities culminating in his role as Director of the Interstate Stream Commission from June 2019 to April 2023; and*

***WHEREAS**, Rolf became involved in Colorado River water issues beginning in 2017; and*

***WHEREAS,** in connection with his work in the Colorado River Basin, Rolf was appointed by Governor Michelle Lujan-Grisham as alternate New Mexico Governor's Representative for Colorado River Compact issues and activities, as an alternate Commissioner to the Upper Colorado River Commission (UCRC), and as a New Mexico representative on the Colorado River Basin Salinity Control Forum and the Advisory Council; and*

***WHEREAS**, Rolf worked tirelessly to protect New Mexico's interests in the waters of the Colorado River Basin, as well as those of the Upper Colorado River Basin, and to promote the wise management of Colorado River resources generally; and*

***WHEREAS**, during his service related to the Colorado River, Rolf's efforts ensured that numerous critical initiatives advanced, including his work to:*

- *further implementation of the 2019 Upper Colorado Basin Drought Contingency Plans;*
- *effectuate execution and implementation of a sovereign-to-sovereign lease agreement with the Jicarilla Apache Nation to be used for the benefit of New Mexico's Strategic Water Reserve on the San Juan River;*
- *build up technical modeling capacity in the Upper Colorado River Basin, both in New Mexico and at the UCRC; and*
- *advance post-2023 funding discussions for the San Juan River Basin Fish Recovery Implementation Program.*

***WHEREAS**, Rolf always demonstrated boundless energy, commitment, strategic thinking, and a superior understanding of hydrology and reservoir management; and*

***WHEREAS**, as a result of his leadership and commitment, the past and present UCRC Commissioners, their advisers and staff developed great respect, admiration, and appreciation for Rolf; and*

***WHEREAS**, Rolf retired at the end of April 2023.*

***NOW, THEREFORE, BE IT RESOLVED** that the Upper Colorado River Commission, at its meeting in Las Vegas, NV on December 13, 2023, does hereby express the gratitude and appreciation of the Commission and its staff to Rolf Schmidt-Petersen, in recognition of his*

invaluable contributions and leadership in addressing the many legal, technical, and political water resource challenges that he helped tackle during his tenure; and

BE IT FURTHER RESOLVED *that the Executive Director of the Upper Colorado River Commission is directed to provide a copy of this Resolution to Rolf Schmidt-Petersen, the New Mexico Upper Colorado River Commissioner, and the Governor of the State of New Mexico.*

REBECCA MITCHELL
Commissioner for Colorado

GENE SHAWCROFT
Commissioner for Utah

BRANDON GEBHART
Commissioner for Wyoming

ESTEVAN LOPEZ
Commissioner for New Mexico

ANNE CASTLE
U.S. Commissioner

Upper Colorado River Commission

APPENDIX D
Transmountain Diversions

For the Water Year Ending
Sept. 30, 2024

TRANSMOUNTAIN DIVERSIONS (1988-2024)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	10-YEAR AVG
TO PLATTE RIVER BASIN											
A P Gumlick Tunnel* (Out-of-Service)											
Alva B. Adams Tunnel	113,014	242,900	235,704	116,939	289,300	210,493	245,500	212,800	237,812	201,842	210,630
Berthoud Pass Ditch	366	738	629	208	638	632	400	435	672	595	531
Boreas Pass Ditch	113	119	156	36	157	130	118	103	98	168	120
Eureka Ditch	-	-	-	-	-	-	-	-	-		
Grand River Ditch	12,641	14,070	15,915	7,244	9,712	18,094	12,980	19,360	15,233	18,194	14,344
Harold D. Roberts Tunnel	8,870	37,470	64,382	46,646	48,110	66,035	101,405	103,800	63,518	53,392	59,363
Moffat Water Tunnel	26,828	26,450	47,941	24,835	49,980	55,238	44,188	43,360	28,695	33,178	38,069
Straight Creek Tunnel	291	265	271	102	263	236	150	189	258	174	220
Vidler Tunnel	668	380	712	135	518	412	18	402	695	285	423
TO ARKANSAS RIVER BASIN											
Busk-Ivanhoe Tunnel	2,554	2,400	2,920	1,550	4,260	3,250	3,230	2,230	2,111	2,800	2,731
Charles H. Boustead Tunnel	70,731	31,366	70,080	40,930	97,200	53,240	34,430	51,730	68,588	69,496	58,779
Columbine Ditch	1,348	926	1,860	1,320	2,620	1,452	1,230	1,350	1,827	2,213	1,615
Ewing Ditch	711	466	1,080	524	1,920	658	420	633	1,008	1,105	853
Homestake Tunnel	4,185	2,143	22,600	19,430	34,040	23,831	27,830	23,580	25,054	18,147	20,084
Hoosier Pass Tunnel	6,493	7,820	12,605	4,295	7,940	10,986	10,290	8,390	7,643	8,635	8,510
Larkspur Ditch	517	177	503	101	403	271	213	274	990	366	382
Twin Lakes Tunnel	17,650	17,814	31,570	31,060	37,910	36,540	32,620	35,680	41,631	45,833	32,831
Wurtz Ditch	499	1,206	2,340	1,380	3,750	2,012	1,520	2,230	2,230	2,413	1,958
TO RIO GRANDE BASIN											
Don La Font Ditches No. 1 & 2	309	347	371	45	213	87	254	116	60	394	220
Pine River-Weminuche Pass Ditch	934	639	593	163	444	479	402	123	497	281	456

Tabor Ditch	1,387	1,020	1,020	259	1,260	588	741	434	787	685	818
Tarbell Ditch	-	-	479	162	2	319	623	560	479	794	427
Treasure Pass Ditch	303	319	458	155	440	212	259	240	471	229	309
Weminuche Pass Ditch	2,918	2,020	1,440	322	752	877	916	639	1,527	1,289	1,270
William Creek-Squaw Pass Ditch	517	318	448	184	356	281	231	203	204	150	289
TOTAL COLORADO TM DIVERSIONS	273,849	391,373	516,078	298,025	592,188	486,353	519,968	508,861	502,088	462,658	455,144
TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN UTAH											
TO GREAT BASIN											
Broadbent Supply Ditch (Woming)	1,000	1,061	1,240	1,734	1,515	840	836	1,163	1,240	1,015	1,164
Central Utah Project	44,345	41,982	29,410	34,962	46,715	49,284	45,270	46,045	18,970	74,693	43,168
Duchesne Tunnel	29,638	35,577	37,561	24,314	36,431	32,996	16,139	33,873	48,570	29,917	32,502
Ephraim Tunnel	3,412	1,621	2,450	1,493	1,829	2,078	1,470	2,047	2,860	2,568	2,183
Fairview Tunnel	1,332	2,241	2,550	716	2,087	1,366	505	1,955	2,317	2,270	1,734
Hobble Creek Ditch	-	-	-	-	-	-	-	-	-		
Spring City Tunnel	4,171	3,736	4,656	2,223	3,833	3,000	2,700	2,950	3,669	2,805	3,374
Strawberry water users	63,264	63,499	55,549	74,796	42,479	71,998	65,823	52,725	29,327	50,511	56,997
Strawberry-Willow Creek Ditch	-	-	-	-	-	-	-	-	-		
Larsen Tunnel	690	690	690	690	690	690	690	690	690	690	690
Lucy Fork Ditch	100	100	100	100	100	100	100	100	100	100	100
Horseshoe Tunnel	600	600	600	600	600	600	600	600	600	600	600
Cedar Creek Tunnel	340	340	340	340	340	340	340	340	340	340	340
Black Canyon Ditch	290	290	290	290	290	290	290	290	290	290	290

Coal Fork Ditch	260	260	260	260	260	260	260	260	260	260	260
Reeder Ditch	250	250	250	250	250	250	250	250	250	250	250
Twin Creek Tunnel	220	220	220	220	220	220	220	220	220	220	220
Candland Ditch	200	200	200	200	200	200	200	200	200	200	200
John August Ditch	200	200	200	200	200	200	200	200	200	200	200
Madsen Ditch	40	40	40	40	40	40	40	40	40	40	40
TOTAL UTAH TM DIVERSIONS	150,353	152,907	136,607	143,428	138,079	164,752	135,933	143,948	110,142	166,969	144,312
TRANSMOUNTAIN DIVERSIONS FROM THE GREAT BASIN IN UTAH TO COLORADO RIVER BASIN IN UTAH											
Tropic and East Fork Canal (import)	4,444	9,648	4,916	4,834	5,000	4,800	4,000	4,000	4,000	4,000	4,964
							est by dist	est. by dist.	est. by dist.		
TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO TO RIO GRANDE BASIN IN NEW MEXICO											
San Juan-Chama Diversions	94,048	97,551	163,168	36,511	139,062	45,071	57,466	61,749	132,730	68,317	89,567
TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN TO NORTH PLATTE BASIN IN WYOMING											
City of Cheyenne	5,945	7,553	6,503	6,170	14,500	7,660	9,419	13,201	8,410	4,890	8,425
Continental Divide	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040

Ranger Ditch	500	500	500	500	500	500	500	500	500	500	500
TOTAL WYOMING TM DIVERSIONS	7,485	9,093	8,043	7,710	16,040	9,200	10,959	14,741	9,950	7,445	10,067
TOTAL TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN (revised MathWorks)	521,290	641,276	818,980	480,840	880,369	700,576	720,326	725,299	750,911	701,389	694,126