



**UPPER EAGLE REGIONAL  
WATER AUTHORITY**

**M E M O R A N D U M**

**TO:** Board of Directors  
**FROM:** Brian Thompson, Government Affairs Administrator  
**DATE:** August 19, 2022  
**RE:** August 25, 2022, Board Meeting

**GOVERNED BY:**

The Metropolitan  
Districts of:  
Arrowhead  
Beaver Creek  
Berry Creek  
EagleVail  
Edwards

The Town of Avon

This memorandum shall serve as notice of the Regular Meeting of the Board of Directors of the Upper Eagle Regional Water Authority:

**Thursday, August 25, 2022  
8:30 a.m.**

**This meeting will be held in-person for board members**

Walter Kirch Room  
Eagle River Water & Sanitation District Vail office  
846 Forest Road  
Vail, Colorado

Due to concerns regarding COVID-19 and the benefits of limiting in-person contact, this meeting is open to public participants virtually through Microsoft Teams, except during Executive Session pursuant to §24-6-402, C.R.S. Login information is available prior to the meeting by emailing [info@erwsd.org](mailto:info@erwsd.org).

Public comments are welcomed during the meeting's designated public comment period consistent with §18-9-108, C.R.S. Speakers may address the Board on a first-recognized basis by the Chair. Public comments are limited to three minutes per speaker on relevant matters not listed on the agenda.



**UPPER EAGLE REGIONAL  
WATER AUTHORITY**

**BOARD OF DIRECTORS REGULAR MEETING**

August 25, 2022

**8:30 a.m.**

Walter Kirch Conference Room

**AGENDA**

**GOVERNED BY:**

The Metropolitan  
Districts of:

Arrowhead

Beaver Creek

Berry Creek

EagleVail

Edwards

The Town of Avon

**1. Consultant/Guest Introduction**

**Attachment Link**

**2. Public Comment**

**3. Action Items**

- 3.1. Approval of minutes from July 28, 2022, Regular Meeting
- 3.2. **Joint Resolution:** A Resolution Establishing a No-Fault Damages Program – Kathryn Winn
- 3.3. **Joint Resolution:** A Resolution in Support of H.R. 5118 – Wildlife Response and Drought Resiliency Act – Kristin Moseley
- 3.4. Consideration of Tralee Affordable Mountain Apartments indoor efficiency rebate request – Chris Wolff

[Action Item](#)

[Action Item](#)

[Action Item](#)

[Action Item](#)

**4. Information Reports**

- 4.1. Development report
- 4.2. Board committees
- 4.3. July meeting summary – draft

[Informational](#)

[Informational](#)

[Informational](#)

**5. Strategy Items**

- 5.1. Board member input
- 5.2. Eagle River Watershed Council funding request for 2023

[Informational](#)

**6. Acting General Manager Report – David Norris**

- 6.1. Business Administration report – David Norris
- 6.2. Operations report – Jeff Schneider
- 6.3. Engineering and Water Resources report – Jason Cowles
- 6.4. Communications and Public Affairs report – Diane Johnson

[Informational](#)

[Informational](#)

[Informational](#)

**7. Water Counsel Report – Kristin Moseley**

**8. General Counsel Report – Kathryn Winn**

[Confidential](#)

**9. Executive Session – Motion to adjourn into Executive Session, with no recording in accordance with applicable laws, in order to:**

- 9.1. Receive legal advice involving the federal nexus associated with reservoirs, pursuant to §24-6-402(4)(b), C.R.S.

[Confidential](#)

**10. Adjournment**

**Managed by Eagle River Water & Sanitation District**

846 Forest Road Vail, Colorado 81657 Tel (970) 476-7480 [erwsd.org](http://erwsd.org)

**JOINT RESOLUTION OF  
EAGLE RIVER WATER AND SANITATION DISTRICT AND  
UPPER EAGLE REGIONAL WATER AUTHORITY**

**ESTABLISHING A NO-FAULT DAMAGES PROGRAM**

**WHEREAS**, the Eagle River Water and Sanitation District (“District”) and the Upper Eagle Regional Water Authority (“Authority”) are each political subdivisions of the State of Colorado authorized to provide water service and the District also provides sewer service; and

**WHEREAS**, the District and Authority are governmental entities and pursuant to the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, are immune from liability for tortious injuries, including damage to personal and private property resulting from or caused by the District’s and Authority’s mains, equipment, and acts of employees and agents; and

**WHEREAS**, when the District’s or Authority’s water or sewer mains result in damage to private property, the homeowners’ insurance typically will not cover claims for such damage, and homeowners may have to pay out of pocket to repair damage to their homes; and

**WHEREAS**, while not liable for such damage, the District and Authority wish to provide for limited financial assistance to residential property owners who are impacted by such incidents, and therefore to establish a Damages Program and set aside funds specifically for such repairs in a No-Fault Damages Line-Item Account.

**NOW, THEREFORE, BE IT RESOLVED** by the Boards of Directors of the Eagle River Water and Sanitation District and the Upper Eagle Regional Water Authority that:

1. **No-Fault Damages Program.** The District and Authority are willing to consider payment for private property damage that is caused by or results from an occurrence in the District’s or Authority’s main, subject to the following conditions and restrictions:

(a) For damages to private residential (single-family or multi-family) property resulting from a backup, break, or other issue in the District’s or Authority’s main

sewer or water line, individual homeowners can apply for repayment up to a maximum of \$85,000 per property, with a per-event cap of \$200,000, to cover mitigation and restoration work not covered by the homeowner's property insurance. In the event that multiple properties are impacted by a single event with the totals exceeding the event cap, payout will be split among all properties as equitably as possible.

(b) Damages payments are available only for damage to residential (single-family or multi-family) properties.

(c) A separate No-Fault Damages Line-Item Account ("Account") will be set up, with the District and Authority contributing the amount of \$50,000 per year, until the cap of \$200,000 is reached; and replenishing the Account in the maximum amount of \$50,000 per year, or such other amounts as may be appropriated by the Boards.

(d) Total combined payments to homeowners cannot exceed \$200,000 in any fiscal year, or such lower amount as exists in the Account, subject to annual appropriation by the Boards.

(e) Only damage to real property and structures is eligible for payment; damages to personal property will not be covered.

(f) The damage must be determined by the District and Authority to have been caused by or resulted from an occurrence in the District's or Authority's main, and not from the property's service line.

(g) The property owner must provide an estimate from a contractor authorized by the District and Authority. Outside estimates will not be considered.

(h) The property must have a current homeowner's insurance policy at the time of the damage, which will be used first. The property owner must file a claim with its insurance carrier. The Account will be used to cover the gap that may exist between the insurance limits and the restoration costs, up to the maximum allowed under this No-Fault Damages Program ("Program").

(i) The property owner will sign a Release of Liability with the District and/or Authority as applicable, in a form determined the District/Authority, which will bind the property owner and all successors.

(j) Property owner must notify the District within two (2) business days of the event and file a claim within thirty (30) calendar days of the event. Evidence that a claim has been submitted to the property owner's insurance and/or a letter that the insurance denied or only partially paid the claim is required.

(k) The Account shall be a line item in the General Fund, and upon motion of the Board be able to be utilized for other necessary operating needs that arise.



(1) The District and Authority staff may promulgate further rules and regulations and adopt procedures for staff to implement this Program and consider applications.

2. **Severability.** If any part, section, subsection, sentence, clause or phrase of this Joint Resolution is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining provisions.

3. **Effective Date.** This Joint Resolution shall take effect and be of full force and effect immediately upon passage by both Boards.

**ADOPTED** this 28<sup>th</sup> day of July 2022 by the District.

**Eagle River Water and Sanitation District**

By: \_\_\_\_\_  
Dick Cleveland, Chairman

ATTEST: \_\_\_\_\_  
George Gregory, Secretary

**ADOPTED** this 25<sup>th</sup> day of August 2022 by the Authority.

**Upper Eagle Regional Water Authority**

By: \_\_\_\_\_  
George D. Gregory, Chairman

ATTEST: \_\_\_\_\_  
Kim Bell Williams, Secretary



1155 CANYON BOULEVARD, SUITE 110, BOULDER, CO 80302  
OFFICE: 303-449-2834 FAX: 720-535-4921  
SOMACHLAW.COM

## MEMORANDUM

TO: Eagle River Water and Sanitation District Board of Directors  
Upper Eagle Regional Water Authority Board of Directors

FROM: Kristin Moseley

SUBJECT: Joint Resolution in Support of Wildfire Response and Drought Resiliency Act

DATE: August 17, 2022

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I have provided to the Board for consideration a joint resolution in support of the Wildfire Response and Drought Resiliency Act (the “Act”), which the U.S. House of Representatives passed on July 29, 2022, and now proceeds to the U.S. Senate for consideration. Representative Neguse served as a lead sponsor of the Act in the House of Representatives.

The Act is a package of forty-nine (49) bills that aims to provide investments to improve fire-adapted ecosystems, protect communities against catastrophic wildfires, enhance drought resiliency, expand science programs, modernize data and technology, and ensure a whole-of-government approach to wildfire and drought issues. Specifically, the Act authorizes additional policies and resources necessary to support a ten-year strategy to meaningfully address wildfire risk and provide for the protection and conservation of our national forests and public lands; advances policy solutions to provide drought relief for American communities; and addresses several environmental justice community needs.

A detailed summary of the Act can be accessed at the following link:  
[https://naturalresources.house.gov/imo/media/doc/WRDR%20Act\\_Bill%20Summary.pdf](https://naturalresources.house.gov/imo/media/doc/WRDR%20Act_Bill%20Summary.pdf)

The proposed joint resolution provided with this memo indicates the District’s and Authority’s support of the Act, applauds Representative Neguse for his sponsorship of the Act, and requests Senators Bennet and Hickenlooper to support it in the Senate.

**JOINT RESOLUTION OF  
EAGLE RIVER WATER & SANITATION DISTRICT &  
UPPER EAGLE REGIONAL WATER AUTHORITY**

**Regarding Wildfire Response and Drought Resiliency Federal Legislation**

**WHEREAS**, the Eagle River Water and Sanitation District (“District”) is a quasi-municipal corporation and political subdivision of the State of Colorado and a duly organized and existing special district pursuant to Article 1, Title 32, Colorado Revised Statutes.

**WHEREAS**, the District provides water service to the Vail and Wolcott regions, and provides sewer service from Vail to Wolcott.

**WHEREAS**, the District is functionally integrated with the Upper Eagle Regional Water Authority (the “Authority”), which provides water service to the area between Vail and Wolcott. Together, the District and Authority constitute the second largest municipal water provider on the western slope. The District staff operate the Authority’s water system.

**WHEREAS**, on July 29, 2022, the United States House of Representatives passed the Wildfire Response and Drought Resiliency Act, also known as the Continental Divide Trail Completion Act (the “Act”), H.R. 5118, a package of bills that provides investments to improve fire-adapted ecosystems, protect communities against catastrophic wildfires, enhance drought resiliency, expand science programs, and modernize data and technology to help federal wildlife response and mitigation efforts to combat the Western drought. The Act now goes to the United States Senate for consideration.

**WHEREAS**, Representative Joe Neguse, U.S. Congressman for Colorado’s Second District, which includes the District’s and Authority’s service areas, served as a lead sponsor of the Act, and pushed for its passage in the House of Representatives.

**WHEREAS**, the District and Authority have reviewed the Act, and applaud the House of Representative’s passage of the Act, particularly Representative Neguse’s sponsorship and support.

**NOW THEREFORE**, the District and Authority hereby resolve that they support the Wildfire Response and Drought Resiliency Act and request Senators Bennet and Hickenlooper to support the legislation as it proceeds to the Senate for consideration.

Unanimously adopted this 25<sup>th</sup> day of August 2022.

EAGLE RIVER WATER & SANITATION DISTRICT

By: \_\_\_\_\_  
Dick Cleveland, Chair

ATTEST:

By: \_\_\_\_\_  
George Gregory, Secretary

UPPER EAGLE REGIONAL WATER AUTHORITY

By: \_\_\_\_\_  
George Gregory, Chair

ATTEST:

By: \_\_\_\_\_  
Kim Bell Williams, Secretary



**UPPER EAGLE REGIONAL  
WATER AUTHORITY**

**GOVERNED BY:**

The Metropolitan  
Districts of:  
Arrowhead  
Beaver Creek  
Berry Creek  
EagleVail  
Edwards

The Town of Avon

**BOARD ACTION REQUEST**

**TO:** UERWA Board of Directors

**FROM:** Jason Cowles, Director of Engineering and Water Resources  
Christopher Wolff, Water Demand Management Coordinator

**DATE:** August 25, 2022

**RE:** Tralee Affordable Mountain Apartments indoor efficiency rebate request

**Summary of Subject:** The new owner of Tralee Affordable Mountain Apartments (formerly Lake Creek Village Apartments) is investing in water efficiency upgrades to the property and has requested that the Authority consider a water efficiency rebate to assist with their efforts.

**Discussion and Background:** Lake Creek Apartments, now known as Tralee Affordable Mountain Apartments, is an affordable, rental housing community in the Edwards Metropolitan District. The 270-unit complex was constructed in 1993 before new water efficient plumbing codes went into effect and is planning to replace 510 inefficient toilets that utilize 3.5 gallons per flush with EPA Water Sense certified dual flush toilets that utilize 0.8 to 1.1 gallon per flush. Tralee Affordable Mountain Apartments is requesting a rebate from the Authority to support their retrofit efforts.

The new owner has already made an investment in indoor water efficiency by replacing other inefficient water fixtures. In April 2022, Tralee Mountain Affordable Apartments spent \$46,006 to install 512 bathroom aerators, 270 kitchen aerators, and 512 low flow shower heads. The owners of Tralee Mountain Affordable Apartments performed an analysis of indoor water savings and estimate the water efficiency upgrades have already reduced residents' indoor water use by approximately 8.5%.

The 2018 Eagle River Regional Water Efficiency Plan (WEP) identified an indoor water use savings goal of 0.7% per year for the Authority equating to a total savings of 9% by the year 2030. While we have strategically targeted outdoor water conservation, this project presents a unique opportunity to further the Authority's indoor water conservation goals and realize water supply benefits due to its location in the Edwards gap. Table 1 demonstrates the water use reductions that can be achieved through toilet retrofits. These savings are reliable over the useful life of the product since they depend on technology rather than behavior change to save water. The WEP specifies a maximum of 1.1 gallon per flush toilet to qualify for an indoor retrofit rebate.

*Table 1 - Estimated Water Savings*

Current toilets (gallons per flush)	Replacement toilets (average gallons per flush)	Estimated Water Savings (per flush)
3.5 gallons	0.9 gallons	2.6 gallons

Tralee Affordable Mountain Apartments currently has 929 residents. We estimate that current toilets use 5.9 million gallons per year (18.3 acre-feet). Once complete, we estimate the toilet retrofit will further reduce indoor water use by 4.4 million gallons per year (13.5 acre-feet).

Tralee Mountain Affordable Apartments are located within the Edwards gap which results in a greater augmentation need during low stream flow periods. Replacing the toilets results in an estimated savings of up to 13.5 acre-feet per year of demand and 6 acre-feet of augmentation water. The recovered augmentation water results in a system benefit by enhancing the reliability of our existing water supply and reducing our impact to the Eagle River through the Edwards gap.

Total project costs and total annual savings are presented in Table 2. The project is estimated to have a 2.8-year payback period. The owner of Tralee Mountain Affordable Apartments will bill water use to residents once the upgrades are complete, thus residents are estimated to realize a savings of \$11.25 per month per apartment based upon 2022 rates.

*Table 2 - Total Project Costs and Total Annual Savings*

Total Replacement Costs		Total Annual Water/Wastewater Savings	
Replacement cost per toilet including labor	\$270	Water Savings	13.6 acre-feet
Number of toilets	510	Water/Wastewater Rates (2022)	\$10.96 kgal
Total Cost	\$137,000	Annual Savings	\$48,570

**Alternatives:** The following alternatives are presented for the Board to consider.

1. No action – If the Authority chooses not to provide a rebate there will be a 2.8-year payback before savings are realized by residents. The Authority will realize immediate water supply benefits.
2. \$20,000 rebate – The payback period is reduced to 2.4 years. Residents will realize savings more quickly, and the Authority will realize immediate water supply benefits.
3. The contribution amount could be increased or decreased at the discretion of the Board.


**Legal Issues:** No legal issues have been identified. Legal counsel will be available at the Board meeting to discuss any potential legal questions.

**Budget Implication:** A rebate of up to \$20,000 can be funded from the Authority's existing budget. A higher contribution could be justified based on the water supply reliability realized by the Authority but would require funding from fund balance. The net reduction in annual revenues is anticipated to be about \$20,000 for the Authority. Reduced revenues will be offset by the reduced costs to treat and deliver water and wastewater and the added water supply reliability realized by the Authority.

**Recommendation:** Given the current rebate budget, staff recommends that the Board consider a \$20,000 rebate to help residents realize savings more quickly but believes that a greater amount up to \$40,000 can be justified based on the water supply benefits of the project.

**Suggested Resolution and Motion:** I move to approve a \$20,000 water efficiency rebate for the Tralee Affordable Mountain Apartments toilet replacement project.

Please let me know if you have any questions or would like additional information. Thank you for your consideration of this request.

ERWSD New Development Report								
August 2022								
		Type of Use	SFEs Proposed	Location	Projected Water Demand Annual Acre-Feet Augmentation (AF)	Development Approval Process Step:	Construction Approval Process Step:	
	Projects Requiring Water Rights Dedication							
	534 E Lionshead Circle - Elevation	Residential	12	Vail	0.49	2. Water Analysis	0. Conceptual	
	500 E Lionshead Circle - Legacy	Residential	23	Vail	0.31	2. Water Analysis	2. Plan Approval	
	Alura (Miradoro)	Residential	10	Vail	0.83	1. Connection Application	1. Plan Review	
	Booth Heights	Residential	61	Vail	TBD	1. Connection Application	0. Conceptual	
	Wolcott PUD	Mixed Use	328 + Com	Wolcott	TBD	0. Conceptual	0. Conceptual	
	Projects Under Construction							
	Belden Place (1200 Block Main St)	Residential	41	Minturn	N/A	N/A	2 Plan Approval	
	Highline (Double Tree Expansion)	Residential	43.65	Vail	0.79	6. Ability to Serve Letter	1. Plan Review	
	North Minturn PUD	Residential	74	Minturn	--	N/A	1. Plan Review	
	The Residences at Main Vail	Residential	72	Vail	0.81	6. Ability to Serve Letter	2. Plan Approval	
	S. Frontage Rd Roundabout	Infrastructure	N/A	Vail	--	N/A	2. Plan Approval	
	Vail Mountain View Phase II	Mixed Use	37	Vail	--	6. Ability to Serve Letter	N/A	
	VVMC Phase II-East Wing	Commercial	--	Vail	--	N/A	2. Plan Approval	
	Vail Marriott Residence Inn	Mixed Use	75	Vail	--	N/A	2. Plan Approval	
	Projects In Warranty Period							
	3010 Basingdale (Phase II), 841/851 Main St Minturn, Red Sandstone Parking Garage							
	Process	Construction Approval Process Steps:	0. Conceptual	1. Plan Review	2. Plan Approval	3. Acceptance	4. Warranty Period	5. Final Acceptance
		Development Approval Process Steps:	1. Connection Application	2. Water Demand Worksheet Analysis	3. Conditional Capacity to Serve Letter	4. Water Rights Allocation	5. Water Service Agreement	6. Ability to Serve Letter

# UERWA New Development Report

August 2022



Type of Use

SFEs Proposed

Location

Projected  
Water Demand  
Annual Acre-Feet  
Augmentation (AF)

Development Approval  
Process Step:

Construction Approval  
Process Step:

## Projects Requiring Water Rights Dedication

Edwards River Park PUD	Mixed Use	440+com	Edwards	61.8	3. Cond. Capacity	0. Conceptual
Margaux PUD	Residential	32	Edwards	3.56	3. Cond. Capacity	0. Conceptual
Mountain Hive	Residential	188	Edwards	10.5-15.2	3. Cond. Capacity	0. Conceptual
NorthStar PUD Amendment	Commercial	TBD	Edwards	3.7	5. Water Service Agreement	2. Plan Approval
Riverwalk Edwards Ammendment	Residential	18	Edwards	1.8	3. Cond. Capacity	N/A
Vogelman Parcel (Carwash)	Mixed Use	1.5	Edwards	1.1-2.6	2. Water Analysis	1. Plan Review
Warner Building 2 Conversion	Residential	13.25	Eagle-Vail	0.07	3. Cond. Capacity	N/A
West End PUD Ammendment	Residential	335	Edwards	34.3	3. Cond. Capacity	0. Conceptual

## Projects Under Construction

140 W Beaver Creek Blvd	Residential	112	Avon	--	N/A	0. Conceptual
Avon Hotel Development (Traer Tract J)	Commercial	85.05	Traer Creek	--	6. Ability to Serve Letter	2. Plan Approval
CMC Student Housing	Residential	36	Edwards	--	6. Ability to Serve Letter	1. Plan Review
CVC Clubhouse Residences	Residential	9	Edwards	--	6. Ability to Serve Letter	2. Plan Approval
ECO School District Housing	Residential	37	Edwards	--	6. Ability to Serve Letter	2. Plan Approval
Fox Hollow Amended PUD	Mixed Use	108	Edwards	14	6. Ability to Serve Letter	1. Plan Review
Frontgate (CO World Resorts)	Mixed Use	84	Avon	2.6	6. Ability to Serve Letter	2. Plan Approval
Kudel Parcel	Residential	4	Edwards	2.4	6. Ability to Serve Letter	2. Plan Approval
Maverik Gas Station	Commercial	2.6	Traer Creek	--	6. Ability to Serve Letter	2. Plan Approval
McGrady Acres	Residential	24	Avon	--	6. Ability to Serve Letter	2. Plan Approval
Riverfront Lot 1	Residential	53	Avon	--	N/A	2. Plan Approval
Stolport Restaurant (Traer Tract J)	Commercial	TBD	Traer Creek	--	6. Ability to Serve Letter	1. Plan Review
Swift Gulch	Residential	42	Avon	Under Review	1. Connection Application	0. Conceptual
Tract Y- Metcalf Road	Residential	54	Avon	Under Review	1. Connection Application	1. Plan Review

## Projects Completing Warranty Period

6 West Apartments, 185 Elk Tract, Piedmont Apartments, Riverfront Village, Stillwater

Upper Eagle Regional Water Authority

Process

<b>Construction Approval Process Steps:</b>	0. Conceptual	1. Plan Review	2. Plan Approval	3. Acceptance	4. Warranty Period	5. Final Acceptance
<b>Development Approval Process Steps:</b>	1. Connection Application	2. Water Demand Worksheet Analysis	3. Conditional Capacity to Serve Letter	4. Water Rights Allocation	5. Water Service Agreement	6. Ability to Serve Letter





## BOARD COMMITTEES

DISTRICT	
<i>Audit/Budget</i>	Dick Cleveland Steve Coyer
<i>Employee Housing</i>	Steve Coyer Dick Cleveland
<i>Retirement Plans</i>	Bob Warner Linn Brooks David Norris
<i>Organizational Development</i>	Bob Warner Dick Cleveland
<i>Facilities Master Plan</i>	George Gregory Bob Warner

JOINT	
<i>Water Quality</i>	Sarah Smith Hymes (A) Timm Paxson (D)
<i>Rules and Regulations</i>	Kim Bell Williams (A) Bob Warner (D)
<i>Water Supply Planning</i>	Sarah Smith Hymes (A) Mick Woodworth (A) Kate Burchenal (D) Steve Coyer (D)
<i>Climate Action Plan</i>	Sarah Smith Hymes (A) Kate Burchenal (D) Timm Paxson (D)

(A) = Authority, (D) = District

AUTHORITY	
<i>Audit/Budget</i>	Geoff Dreyer George Gregory



# UPPER EAGLE REGIONAL WATER AUTHORITY

## GOVERNED BY:

The Metropolitan  
Districts of:  
Arrowhead  
Beaver Creek  
Berry Creek  
EagleVail  
Edwards

The Town of Avon

## MEMORANDUM

**TO:** Board of Directors  
**FROM:** Brian Thompson, Government Affairs Administrator  
**DATE:** August 19, 2022  
**RE:** Summary of Authority's July 28, 2022, Board Meeting

The following is a summary of items discussed at the Authority's July 28, 2022, Board Meeting.

Directors present and acting were Chair George Gregory, Kevin Hillgren, Vice Chair Sarah Smith Hymes, Secretary Kim Bell Williams, and alternate directors Bill Roe and Mike Trueblood.

**Oath of Office** Bill Roe was sworn in after being appointed as an alternate director by the Arrowhead Metropolitan district.

**Public Comment** William McKinzie, an Edwards resident and customer, expressed support for increased sustainable irrigation and landscaping practices and collaboration between community organizations, HOAs, and property managers.

**Approval of minutes** Directors approved the June 23, 2022, regular meeting minutes.

**Resolution Concerning Certain Water Fees** After a public hearing, the Board passed a resolution enacting adjustments to seven current fees and the creation of seven new fees. David Norris noted that these fees are necessary to recoup costs from customers receiving specific services rather than such costs being distributing across all ratepayers.

**Water Budgeting Case Study** Linn Brooks reported on the Las Virgenes (CA) Municipal Water District's water budgeting program and noted the effectiveness of budgeting when implemented with rationales, enforcement policies, and customer messaging that are transparent and consistent. While the drought conditions in Las Virgenes are more critical than the Authority's service area, directors discussed parallels to the case study's budget calculation factors and outreach strategies.

**Quarterly Financial Report** Jim Cannava presented the financials and noted that increased revenues from Tier 4 and Tier 5 users are greater than 2021 due to changes in rates in those high use tiers and are not a result of increased use.

**Operations Report** Siri Roman said that water production and wastewater flows since early May are lower than the same period in 2021. She also reported on staff response to a recent water main break in Cordillera.

**Conservation Communication** Diane Johnson reported on a July 20 letter to customers urging permanent water use reductions due to warming temperatures and diminishing supplies. Customer feedback has been primarily positive, with some opposed to using "climate change" in the letter.

**Edwards Drinking Water Diversion** Kristin Mosely said that the Authority has entered into a stipulation and agreement with the State and Division Engineers in a diligence proceeding for water rights associated with the Edwards Drinking Water Facility.



461 Railroad Ave, Unit C  
PO Box 1477  
Gypsum, Colorado 81637

970-827-5406  
info@erwc.org  
www.erwc.org  
Tax ID#: 20-4448864

**Protecting our rivers since 2004**

Eagle River Water & Sanitation District and Upper Eagle Regional Water Authority  
846 Forest Road  
Vail, CO 81657-5705

August 17, 2022

Dear Mr. Cleveland and Mr. Gregory,

On behalf of the staff and board of Eagle River Watershed Council, I'd like to thank the District and Authority for your consistent and generous support of our mission to advocate for the health of the Eagle River Watershed. Your support allows us to sustain our longstanding and science-backed water quality monitoring program and outreach programming to educate the local community on river stewardship and to advocate for a healthy watershed.

Despite the tremendous change the Watershed Council has experienced in 2022, we have consistently delivered effective programming, from the return of an in-person film festival and our largest ever bi-lingual community float to the removal of nearly five acres of tamarisk and expanding our temperature alert system. Part of why we are able to be consistent with our programming, projects and monitoring is because of partners like you. As we put a new strategic vision with our board and staff in place, wrap up the Eagle River Community Water Plan and learn more about the trajectory of Water in the West – it is clear that our work as water professionals in Eagle County is more important than ever. We are poised to rise to the challenge, and we look forward to continuing to strengthen our working relationship with the District and Authority.

The Watershed Council respectfully requests the continued support of \$50,000 from both the District and Authority, for a total of \$100,000, to support the general administration of our organization and the Water Quality Monitoring & Assessment Program. ERWSD and UERWA are significant supporters of the Watershed Council, contributing 14% of our overall projected revenue in 2022. This is expected to be similar in 2023.

**Water Quality Monitoring & Assessment Program**

Requesting \$25,000 from ERWSD and \$25,000 from UERWA

This longstanding effort is an incredible collaborative database of information that guides the Watershed Council and other entities in the development of project priorities, catches threats as they emerge and ensures that data collection efforts are not duplicated. Funding supports the coordination of data collectors, data analysis, annual reporting to stakeholders and the community, a shared database and the production of an interactive online annual report card offering a graphical interpretation of the data.

The overall budget for WQMAP allows for the flexibility to direct funds towards specific water quality-related issues that are unanticipated each year, may require a shorter investigative timeline or have specific equipment needs. Two efforts that fall into this category are the 2017 Black Gore Creek Data Compilation report and the more recent deployment of the temperature alert system in 2021. We plan to use this in 2023 to increase the data literacy of our community as it relates to water quality, expanding our outreach efforts and creating more digestible materials.

Other support for WQMAP in 2023 is anticipated from US Geological Survey, Eagle County, Homestake Partners, Climax Mine, Vail Resorts Management Company, the Towns of Gypsum, Eagle, Avon, Minturn and Vail, as well as the Colorado River Water Conservation District.

### **General Administration**

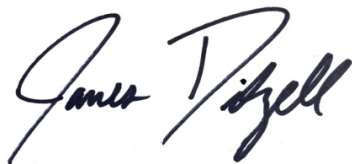
Requesting \$25,000 from ERWSD and \$25,000 from UERWA

These unrestricted funds are critical to support the Watershed Council mission, as they allow us to bridge gaps in programs that are important to our mission and our community, but have proven to be more challenging to fund. They allow us to cast a wide reach with our monthly columns and Vail Daily articles, host events like our recent community science day in the Homestake Valley and bring together the county's fifth-grade students to learn about local waterways. We have done groundwork on the development of a water efficiency and stormwater education program, and continue engagement in important issues such as the Vail Pass expansion project and referral requests for planned development. More generally, these funds allow the Watershed Council to ensure professional development opportunities for our board and staff and procurement of technology - both helping to protect our watershed.

This funding from ERWSD and UERWA is leveraged in requests to individuals, businesses, foundations and other government entities as it demonstrates that our work is critical, valid and worth their own financial support. General administration support also comes from private foundations, Eagle County, the Town of Avon, event proceeds, local businesses, individuals and the Land & Rivers Fund.

As we look ahead to 2023 and beyond, we have a lot of exciting and important work to do - and I hope that the District and Authority are right alongside us. Thank you for your longstanding support and for consideration of continued funding to benefit the mission of Eagle River Watershed Council and our river-centric community. Please reach out to me directly with questions at [dilzell@erwc.org](mailto:dilzell@erwc.org) or 216.509.1454.

Sincerely,

A handwritten signature in black ink, reading "James Dilzell". The signature is fluid and cursive, with the first name "James" and last name "Dilzell" clearly distinguishable.

James Dilzell  
Executive Director

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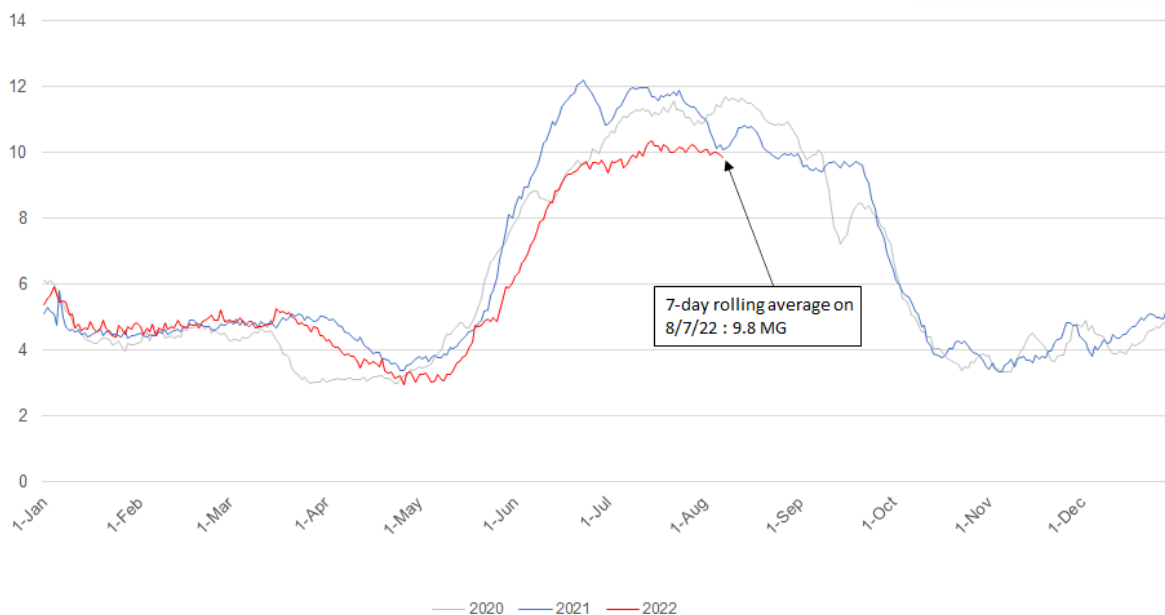
## OPERATIONS MONTHLY REPORT AUGUST 2022

### WATER

Brad Zachman

The system-wide water production comparison was updated through Aug. 8. System production continues to trend lower this year compared to the past several years.

**Total daily water production comparison, UERWA & ERWSD,  
Million gallons per day (7-day rolling average), 2020-2022**



The Water Department continues to prepare for the upcoming District Sanitary Survey. The site inspection is scheduled for Aug. 24-26. The pre-inspection data request was submitted on Aug. 5.

On Aug. 15, heavy rains and mudslides in the Eagle River watershed caused abnormally high turbidity in the Eagle River. The turbidity spiked to above 1,000 NTU, which is 100-200 times higher than normal. Water operators shut down the Avon Drinking Water Facility (ADWF) and the Edwards Drinking Water Facility in early morning to protect the facilities and allow the water quality in the river to improve.

Last year, on Jul. 22, 2021, a similar issue occurred after mudslides in the Avon area poured into the Eagle River. During the 2021 event, ADWF operators carefully “proof-tested” capital improvements that had recently been made to the flocculation and sedimentation processes. Operators used the lessons gained from 2021 to inform their response to the 2022 event.

There was one major difference between the mudslide events in 2021 and 2022. In 2021, the water quality impacts to the river were short-lived and ADWF did not need to be placed into service to meet system demands. In 2022, the water quality impacts were prolonged and turbidity in the river remained above 500 NTU for most of the day. To meet system demand, operators were forced to initiate downloads from Vail and restart ADWF while the turbidity in the river was still high. Operators slowly ramped-up production and were able to safely treat at a rate of 2-3 million gallons per day (MGD). No impacts were observed in the filtered water turbidity. This is an impressive accomplishment for the ADWF process, considering the river water quality was worse in 2022 than it was one year ago.



*Comparison of ADWF Flocculation/Sedimentation Process during 2021 & 2022 Mudslide Events  
(note the cloudy, high-turbidity water entering the process was worse in 2022)*

The annual State of Colorado Eagle Park Reservoir Dam safety inspection was completed on Aug. 9.



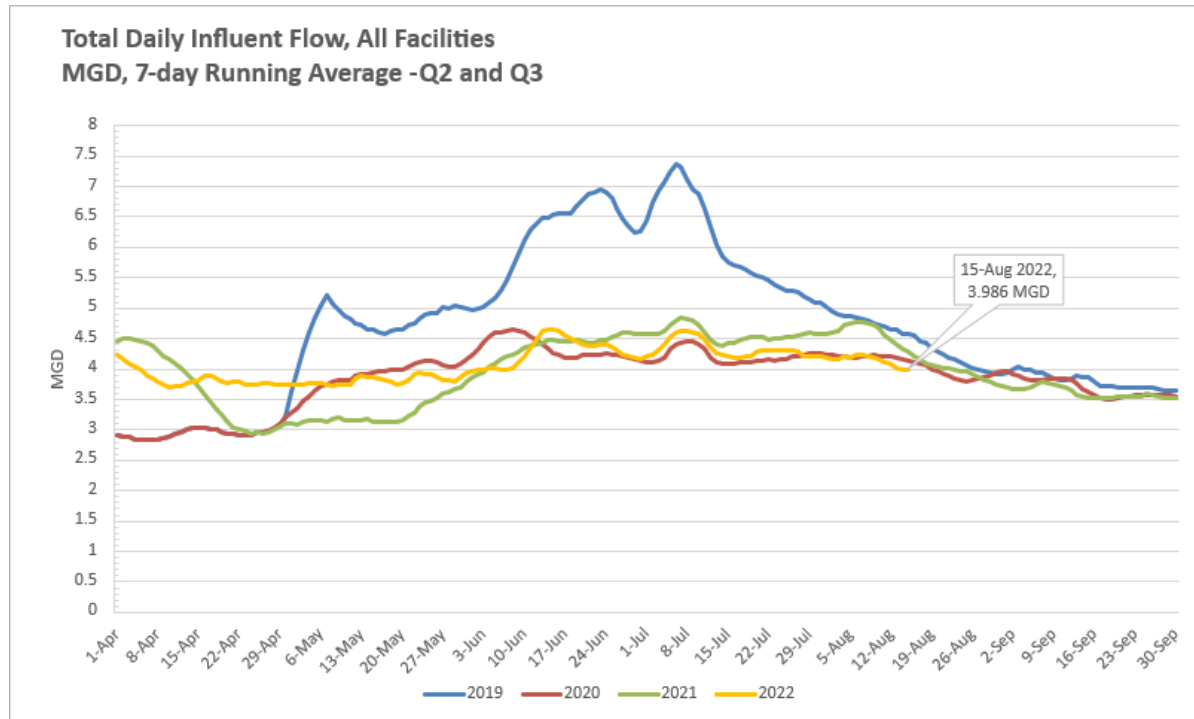


*Eagle Park Reservoir Dam Inspection*

## WASTEWATER

Rob Ringle

Influent flow decreased slightly into mid-Aug., as consistent with trends of recent years. Flows typically continue to decrease gradually through late Aug. and Sept. Cumulative influent flows for the three wastewater facilities are represented as a 7-day average in the plot below.



Some increase in daily influent flow was observed respective to each of the three facilities following the significant rain events on Aug. 14 and Aug. 15. This was accompanied by increases in influent total suspended solids (TSS), which is indicative of impacts from collection system inflow and infiltration (I&I) related to these rain events.

Avon WW operations staff continue to make progress towards compliance with upcoming CDPHE Regulation 85 nutrient limits. This includes optimization of the newly commissioned intermediate mixed liquor return (IMLR) system, and ongoing efforts related to the new secondary clarifier and return sludge system, odor control system, primary clarifier scum wasting system, and equalization basin system. The current process is largely achieving effluent quality complying with the upcoming limits for total phosphorus of 1.0 mg/L and total inorganic nitrogen of 15.0 mg/L.

Edwards WW operations staff also continue to work on process optimization as related to the ongoing WW Master Plan Update effort. This has recently involved changes to the solids handling system intended to optimize the binding of phosphorus in the biosolid product. Impacts on the liquid stream process from changes in the return stream are being closely monitored and managed. Additional WW Master Plan efforts progressed over the past month related to the Edwards WW facility condition assessment and hydraulic modeling tasks.

## FIELD OPERATIONS

Niko Nemcanin

Annual summer field system maintenance continues. Field operations are underway with fire hydrant flushing, system valve maintenance, and booster pump station maintenance. Collection



system jetting (five-year rotation) is underway in Vail and will be followed by closed circuit television (CCTV) of the system.

Field operations staff responded to a sanitary sewer overflow (SSO) near Westhaven Drive in Vail on Aug. 6 at approximately 9:30 a.m. The call was received from a local HOA manager and crews arrived with jetting equipment and had the line cleared within approximately one hour. Fortunately, the line was on a lateral line and not the main trunk line through the area and the flow of the overflow was estimated to be quite low (approximately 3-5 gallons per minute). Town of Vail assisted by temporarily closing the bike path in that area on a busy Saturday morning. There was no evidence of wastewater reaching Gore Creek despite its proximity. An upstream manhole was also surcharged within a few feet of the lid. Crews cleaned the area and applied lime to affected areas off of the bike path. The cause of the SSO was determined to be the presence of tree roots, grit, grease, and “flushable” wipes. Despite evidence of wastewater not reaching the creek, crews collected samples from Gore Creek; those samples provided the needed confirmation.



*Flow on bike path*



*Bank of Gore Creek*

Field operations crews are supporting a major milestone for the Dowd Junction Collection System project at the new interceptor bridge crossing. Crews are assisting with bypass pumping and are inspecting the existing interceptor pipeline in preparation for demolition of the structure.

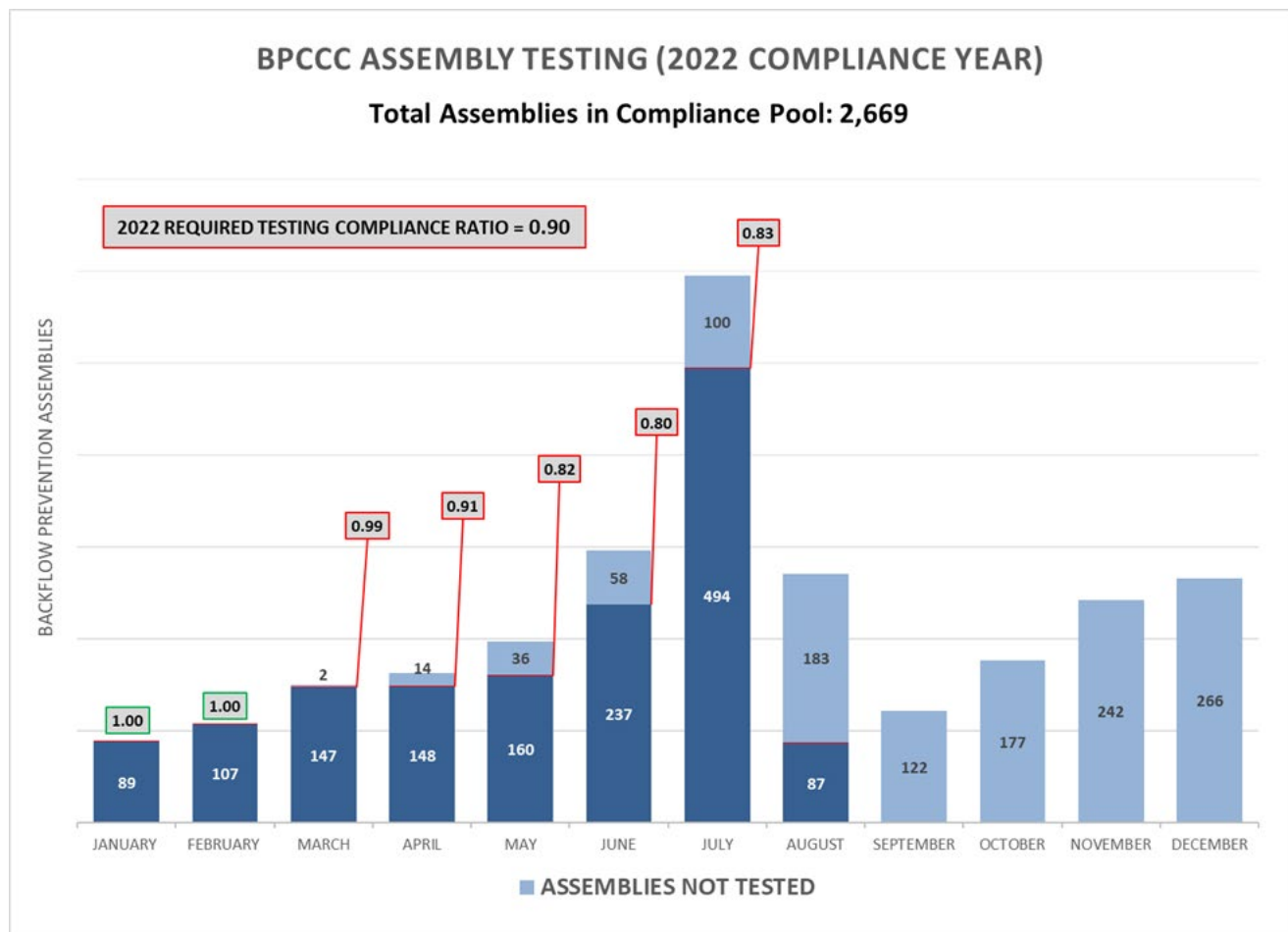
Our teams have been in close coordination with CDOT and other stakeholders closely monitoring the potential sinkhole/drainage issues on US Highway 6 at the eastern portion of Eagle Vail. That area contains critical pipelines in both the water and wastewater system, in addition to a high pressure gas main. Crews are available to assist and observe once CDOT begins remedial action.

Two small repair projects were completed this month: replacing a fire hydrant guard valve on Bellflower Drive in West Vail and repair of a fire hydrant in Eaglebend in Avon. In addition, the week of Aug. 8 was the busiest week of the year for appointments for taps, inspections, flow, and flushing testing. The Field Operations inspector, in addition to working on various development projects throughout the valley, has been assisting CIP on projects in Dowd Junction beyond the jetting and cleaning of the existing river crossing.

## UTILITY SERVICES

Shane Swartwout

### BPCCC Program Compliance Status



## Meter Services – Advanced Metering Infrastructure Status (Updated 8-15-2022)

Report Date:	8-15-2022
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AMI SYSTEM STATUS	ERWSD	UERWA	TOTAL
(1) Total No. of Meters	3192	6822	10014
(2) No. of AMI Meters	2988	5582	8570
(3) System Percentage of AMI Meters	94%	82%	86%
Meters Remaining to Reach 100% AMI	204	1240	1444

### ENGINEERING

Jeff Schneider

### WATER PROJECTS

#### Radio Telemetry Unit (RTU) System Upgrades

Carter Keller

General Project Scope: This project is a systematic approach to install standardized communication equipment to increase the reliability of the telemetry system throughout the distribution system (82 sites) and develop a standard (i.e., non-proprietary) telemetry platform to allow competitive pricing for upgrades, replacement, and system maintenance. Implementation is anticipated over a three-year period with a highly detailed sequence and schedule to limit distribution system disruptions.

Project Update: Factory Acceptance Testing for the remaining 2022 sites is scheduled to start the week of Aug. 29. Commissioning will start shortly after with completion scheduled for late October.

#### Traer Creek Water Storage Tank

Mark Mantua

General Project Scope: This project consists of the replacement of the Traer Creek Water Storage Tank. In addition to the tank replacement, the scope includes piping, appurtenances, and selective replacement of identified equipment including the RTUs and control cabinets.

Project Update: Commissioning of new valves, electrical and controls improvements is planned for August. DN Tanks staff re-mobilized to perform crack repair on the poorly consolidated concrete present in the dome roof. The crack injection process is ongoing. Many former leaks have exhibited no further water infiltration and a significant improvement over the pre-repair scenario.

The recent heavy rains have helped identify remaining areas and the contractor will continue to repair and test until accepted by the Owner and Engineer. The repair methods being employed are crack injection, grinding, patching, and a mortar skim coat. Before demobilizing DN will complete another watertightness test to confirm adequate repairs. We anticipate the tank being ready for service in August.

### **Avon Drinking Water Facility (ADWF) PLC Upgrades**

Jenna Beairsto

General Project Scope: This project includes replacement of two of the programmable logic controllers (PLCs) at ADWF. Additionally, a new server room will be constructed within the facility. All programming and PLC logic will be reverse engineered to determine required updates and improvements associated with the modification and replacement of the existing PLCs.

Project Update: Hensel Phelps has been contracted to complete this work. A preconstruction meeting was held on Jun. 30. Construction of the server room is expected to start later this year. Procurement and submittal generation is underway.

### **Edwards Spur Road Phase 2 Water Main**

Mark Mantua

General Project Scope: The Edwards Spur Road Phase 2 consists of two projects. The first is installation of 1,700 linear feet of water main that was installed in conjunction with the CDOT Edwards Spur Road project. The second is installation of a water main that will run parallel and under the railroad tracks to connect the Edwards Drinking Water Facility to the water main that was previously installed during the 2019 Spur Road project and to a main near Miller Ranch Road. The project will alleviate hydraulic issues in the Edwards low pressure zone.

Project Update: The contractor has installed approximately 1,600 linear feet of 24" pipe which connects a 16" distribution main to the Edwards Drinking Water Facility. Remaining work includes testing and commissioning 600 linear feet of water main, asphalt paving, concrete paving, and site restoration. The new watermain will be online and substantially complete in August.

### **Fenno Wellhouse and Raw Water Conveyance**

Jeffrey Schneider/Carter Keller

General Project Scope: The project consists of complete replacement of a small treatment facility in Cordillera that treats water from seven groundwater wells and pumps into the distribution system. The previous facility did not meet electrical code, had some safety concerns, and was generally at the end of its useful life. Improvements to the wells and raw water piping are also included in this project.

Project Update: The wellhouse project is in final contract closeout.

Following successful coordination with Cordillera stakeholders, we began the well assessment plan, involving systematically accessing, pulling, inspecting, and repairing (if necessary) each of the seven supply wells. Results of the Well F3 casing and screen inspection were positive. It was



determined that the pump and motor need to be replaced and the replacement should be installed within the next few weeks. We obtained and recorded additional easements at Well F2 and are currently working with HOA and homeowners at Well F5. After easements are obtained the wells will be pulled and inspected in a similar fashion. Following the well assessment and repair work, permanent improvements to the raw water conveyance consisting of piping, controls, and electrical will be designed based on the findings of the current effort.

## Water Production and Treatment Masterplan

Jenna Beairsto

General Project Scope: The masterplan will be a wholistic look at all production and treatment facilities system-wide including treatment plants and wells. The goal is to do a thorough risk-based analysis and provide a roadmap for future capital project implementation in light of threats from climate change, low stream flows, wildfires, etc. along with a detailed condition assessment of existing assets.

Project Update: Carollo was onsite the week on Aug. 8. The District hosted the second workshop with the water department and Carollo's engineering team. The master planning team is drafting the first few sections of the masterplan report and has begun building a specialty model (Blue Plan It) to better analyze the entire water system between ERWSD and UERWA.

## Avon Wastewater Treatment Facility (WWTF) Fire Flow Improvements

Woodson Spring

General Project Scope: The Avon WWTF Fire Flow Improvements consist of two major components. The first is installation of 1,100 linear feet of 12" water main down Millie's Lane and into the Avon WWTF site. The second is modifications within the Avon Drinking Water Facility (DWF) to transfer water from the high zone to the low zone. The project will bring the Avon WWTF into compliance with fire flow requirements and address a long-standing deficiency.

Project Update: The pipeline from West Beaver Creek Boulevard to the Avon WWTF gate is completed, tested, and in service. Pipeline installation is suspended for the time being to allow for coordination with the ongoing Avon WWTF Nutrient Upgrades project. The contractor completed restoration and paving of Millie's Lane, including working with the Town of Avon to pave the entire road rather than just the portion containing the utility work.

## WASTEWATER PROJECTS

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## Avon Wastewater Treatment Facility (AWWTF) Nutrient Upgrades

Melissa Marts

General Project Scope: The Avon WWTF requires upgrades to meet Regulation 85, which requires a reduction of the concentrations of nitrogen and phosphorus in the effluent. The scope of this project includes the following: addition of 0.6 million gallons of aeration basin capacity, a new secondary clarifier, structural modifications to the existing aeration basins to remove the existing double-tees and replace with a building structure, a new odor control study and system, and other

improvements throughout the facility. This project also includes improvements identified in a 2017 condition assessment in other process areas throughout the facility.

**Project Update:** Moltz continues to make progress on the aeration basin modifications which drive the critical path schedule. The walkways are completed and installation of pipe has started in aeration basin 1. Painters are working on the exterior of the building and the results can be seen from the aerial photo. The scum pit and pumps were removed and replaced with a manhole and gravity system; that improvement has been placed into service. The project team is working through startup issues with the odor control system. The project is on schedule and within budget.



*Clarifier startup*



*Aerial view*

## **Dowd Junction Collection System Improvements**

Jenna Beairsto

**General Project Scope:** The project consists of four major components, all of which are at the end of their useful lives: the aerial interceptor crossing at Dowd Junction; Lift Station 4, which conveys all of Minturn's wastewater; the aerial interceptor crossing at the Minturn Road bridge; and the force main downstream of Lift Station 4. The project will also include capacity for growth in its respective service areas, most notably the Minturn area improvements.

**Project Update: West Vail Interceptor Aerial Crossing:** The Contractor is bypassing sanitary sewer flows the week of Aug. 15 to tie in the new sanitary line. After the tie in is complete and the new line is in service, the Contractor will begin work demoing the existing pipe and piers. The project team discovered a deficiency with the proposed tie-in manhole and quickly worked to procure and replace the manhole.

**Lift Station 4 and Force Main Replacement:** This project combines three packages of work into one large project. Package A includes the lift station 4 replacement, package B is replacement of the exiting force main with two 8" HDPE force mains, and package C in partnership with Eco Trails (Eagle County) to connect the bike trails from the lift station to the West Vail Interceptor crossing. Gould Construction mobilized to the site the last week in July. A crew has begun laying the new gravity sewer line from outside of the Minturn Forest Service Station to the southeast. Gould and their subcontractors have excavated for the new lift station and are installing shoring for the wet

well excavation. Rebar installation and concrete placement for the wet well slab is anticipated in the next few weeks.



*Drilling for wet well shoring*



*Gravity sewer line construction*

### **Avon Lab Improvements**

Melissa Marts

General Project Scope: A new inductively coupled plasma mass spectrometer (ICP-MS) purchased by the District will be installed in the lab. This will provide improved analytical capability to our internal and external customers. This device enables District staff to perform in-house metals analyses that are normally outsourced. Lab and architectural modifications will be constructed, including a new gas cabinet, duct chase, and fume hood. During design, the makeup air unit (MAU) serving the lab was identified to be at the end of its useful life; the HVAC system for the lab and lab offices will also be replaced.

Project Update: Moltz is under contract and scheduled to begin work in October. Due to long lead times, the new MAU is scheduled to be onsite and installed in March 2023.

### **Vail Wastewater Treatment Facility (VWWTF) Master Plan Improvements**

Melissa Marts

General Project Scope: A condition assessment of the Vail WWTF conducted as part of the 2017 Master Plan identified various upgrades required to keep the facility in reliable and operable condition. The scope includes a new, larger diesel generator and associated electrical, structural repairs in the aeration basin, equalization, and clarifier rooms, replacement of the aging ultraviolet (UV) system, and construction and installation of an external facility bypass.

Project Update: PCL Construction has submitted guaranteed maximum price (GMP) proposal #1 for the early-out generator/ automated transfer switch (ATS). The District and Engineer are in the process of final price and scope negotiation. The District submitted a letter of intent which enabled the electrical submittal process to begin in order to help lock-in pricing without further escalation and schedule compression. Black and Veatch and PCL submitted separate 60% price models for GMP #2 which consist of the remainder of the project scope. The price models are within 2%

indicating best value and cost certainty. Long equipment lead times also necessitate early procurement of membrane diffusers and ultraviolet (UV) disinfection equipment.

## **GENERAL CAPITAL**

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### **Fleet Maintenance Facility**

Mark Mantua

General Project Scope: The 2020 Overall Facilities Master Plan indicated an opportunity to relocate the fleet maintenance facility, along with large vehicle and equipment storage and water meter testing and storage, to the property known as “Hillcrest” at the corner of Hillcrest Drive and U.S. Highway 6. We are moving forward with that concept but located on a parcel of land immediately east of the Edwards Wastewater Treatment Facility on Lake Creek Village Drive.


Project Update: After a productive request for proposals (RFP) process, five proposals were submitted from qualified architecture and engineering firms on Jul. 22. A proposal from D2C Architects was unanimously ranked the highest by the selection committee, comprised of representatives from CIP, Sustainability, and Operations, and an interview/meet and greet was held on Aug. 10. Following the interview, D2C was selected to enter into contract negotiations.





## MEMORANDUM

**TO:** District and Authority Boards of Directors

**FROM:** Jason Cowles, P.E. 

**DATE:** August 17, 2022

**RE:** Engineering & Water Resources Report

### Authority Unallocated Water Update

The Authority's unallocated water projection remains at 227.31 acre feet. This includes 51.19 acre feet of unrestricted Eagle Park Reservoir water, which includes the 25 acre feet pledged to the Authority by the District. It also includes 78.13 acre feet of Eagle Park Reservoir water committed to workforce housing, and 97.98 historic irrigation season consumptive use credits. The current projection is attached.

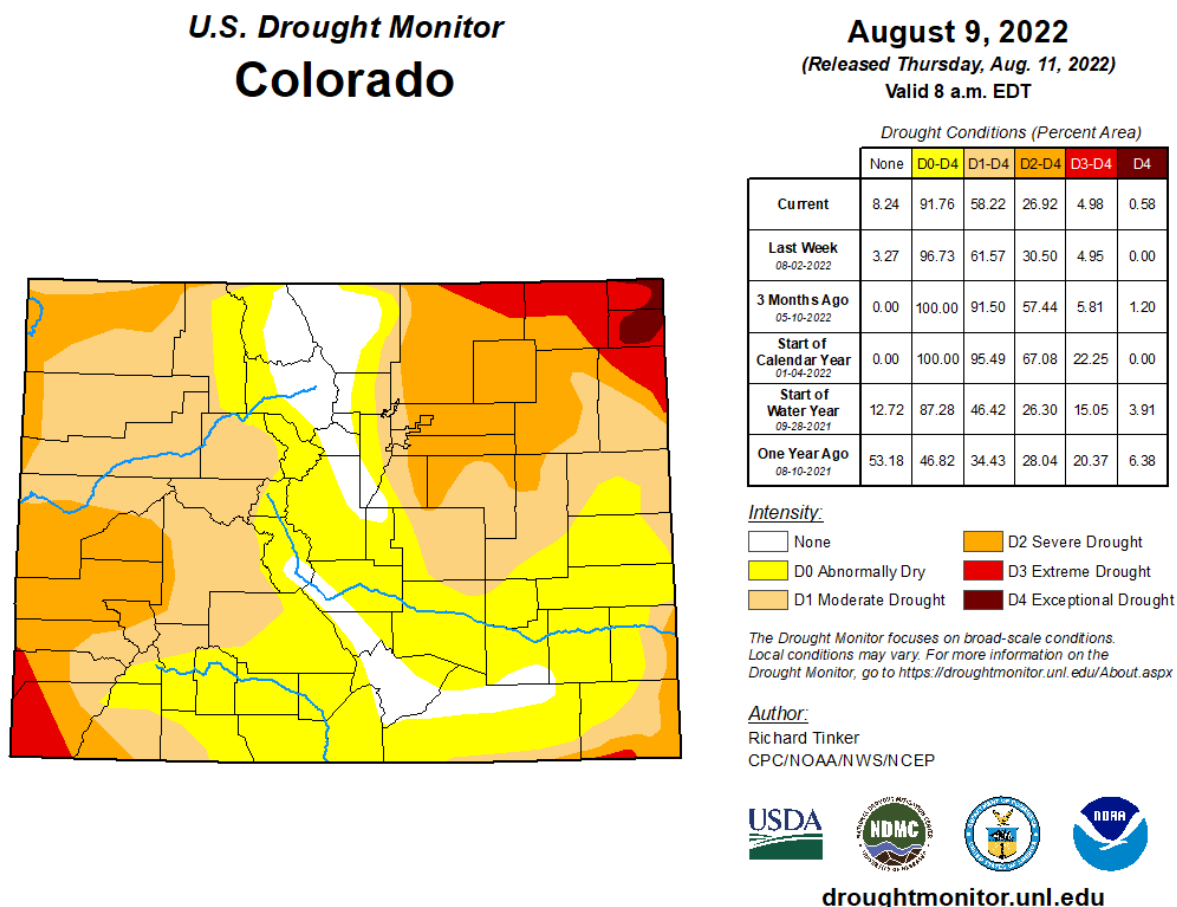
### Edwards River Park PUD Conditional Capacity to Serve Extension Request

We have received a request from the Edwards River Park PUD property owner for an extension of the Authority's conditional capacity to serve letter. The Authority's conditional capacity to serve letter was updated and reissued on August 18, 2021 and was valid for one year from the date of the letter. Eagle County's resolution approving the preliminary plan for PUD was formally approved by the Board of County Commissioners on January 18, 2022 with an effective date of approval of October 26, 2021. The County's approval included a condition requiring that the development obtain an ability to serve letter from the Authority within two years of the County's resolution of approval for the PUD unless an extension is granted by the Authority. I recommend that the Authority approve an extension of the conditional capacity to serve letter until January 18, 2024, as that aligns with the County's condition of approval.

### Water Resources Update

The latest U.S. Drought Monitor Map for Colorado is shown below in Figure 1. Drought intensity has been reduced in the southern portions of the state due to monsoonal precipitation in July and early August. High elevation ranges in the southern, central, and northern mountains have also been removed from drought status thanks to recent precipitation. Eagle County's status remained largely unchanged with most of the county experiencing moderate drought, though some improvement has occurred along the Continental Divide.

Figure 1: US Drought Monitor, Colorado August 9, 2022 (National Drought Mitigation Center).



The NOAA Climate Prediction Center's seasonal drought outlook shows dramatic improvement through October for the southwestern US in Figure 2. The Current outlook for temperature and precipitation indicates that most of Colorado will see improving drought conditions as there is a high confidence that cooler temperatures (Figure 3) and above average monsoonal precipitation (Figure 4) will persist through the end of the month and into early September.

Figure 2: US Seasonal Drought Outlook through October 31, 2022 (NOAA Climate Prediction Center).

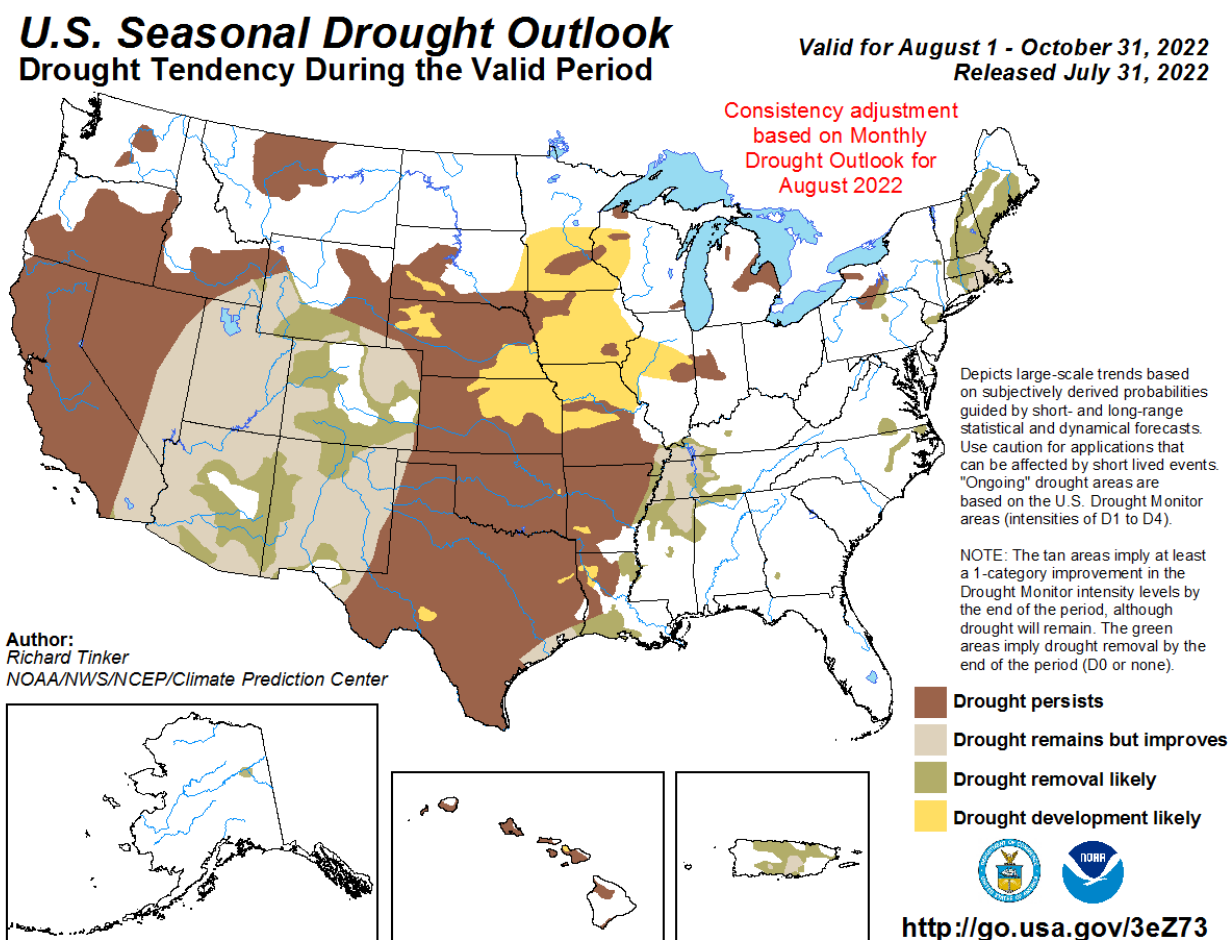


Figure 3: 8-14 Day Temperature Outlook August 14, 2022 (NOAA Climate Prediction Center).

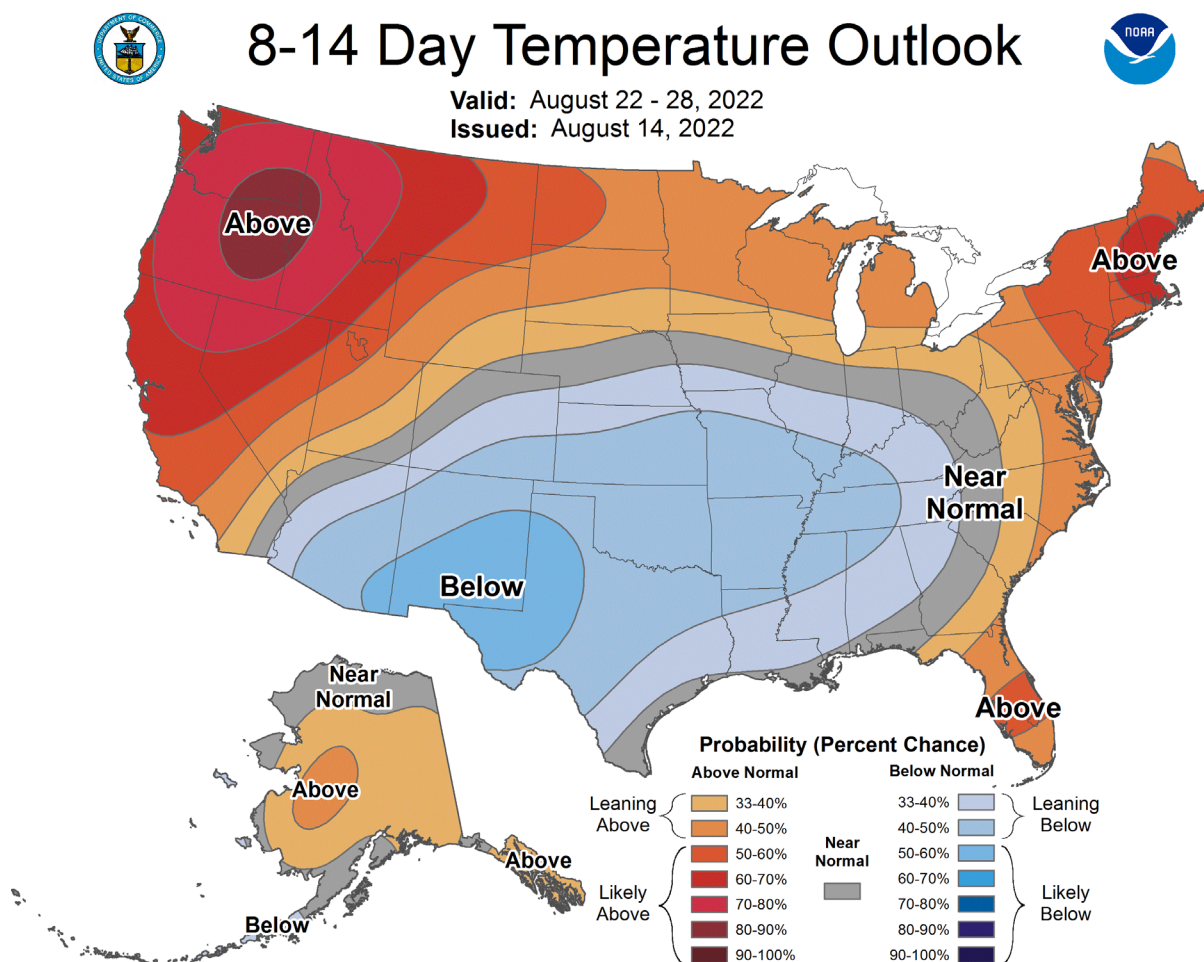
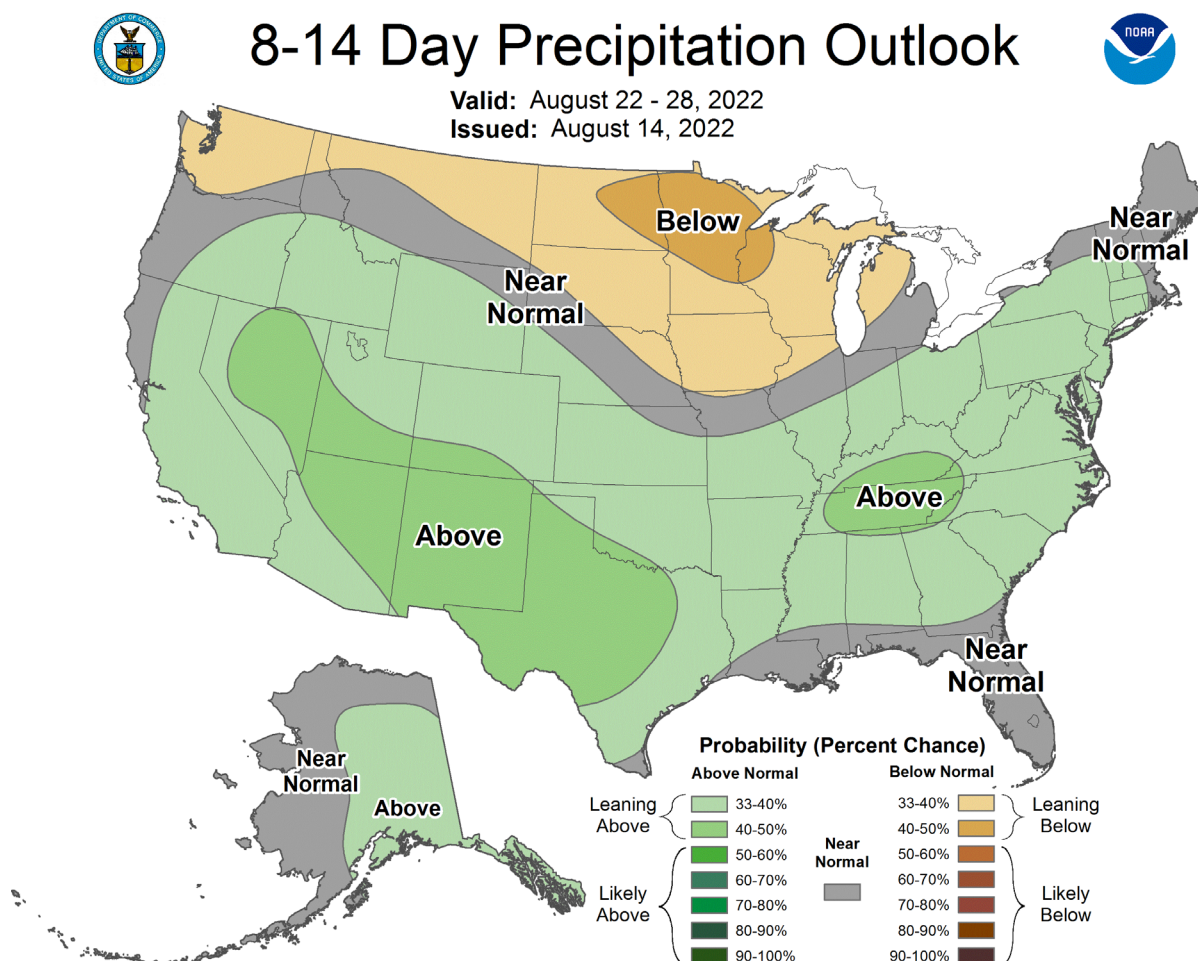


Figure 4: 8-14 Day Precipitation Outlook August 14, 2002 (NOAA Climate Prediction Center).





Cumulative water year-to-date precipitation at the Vail Mountain and Fremont Pass Snotel sites are shown in Figures 5 and 6. Vail Mountain saw a recent bump from rainfall this week and is now tracking at 6.1 inches below the median value for this date or 81% of the median. Precipitation as of August 17 is above average for the month of August. As reflected in the Drought Monitor update, Fremont Pass continues to fare better tracking 2.08 inches above the median value on this date or 111% of the median.

Figure 5: Cumulative Precipitation, Vail Mountain SNOTEL, August 17, 2022 (USDA).

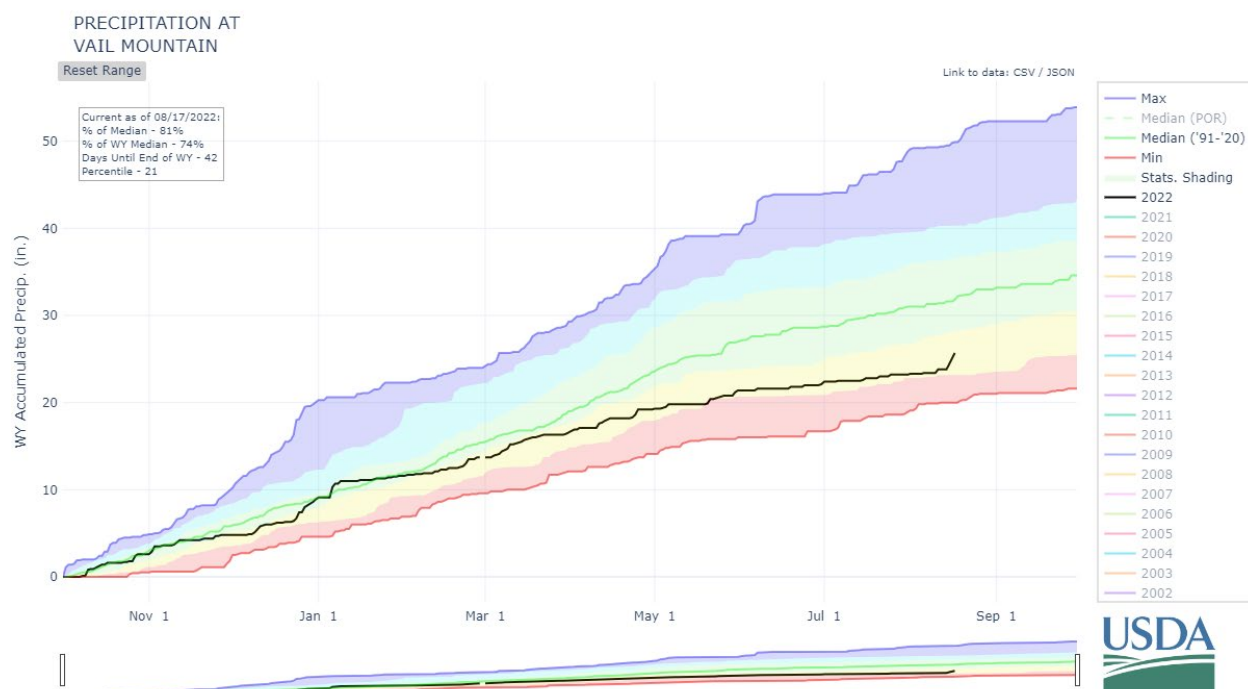
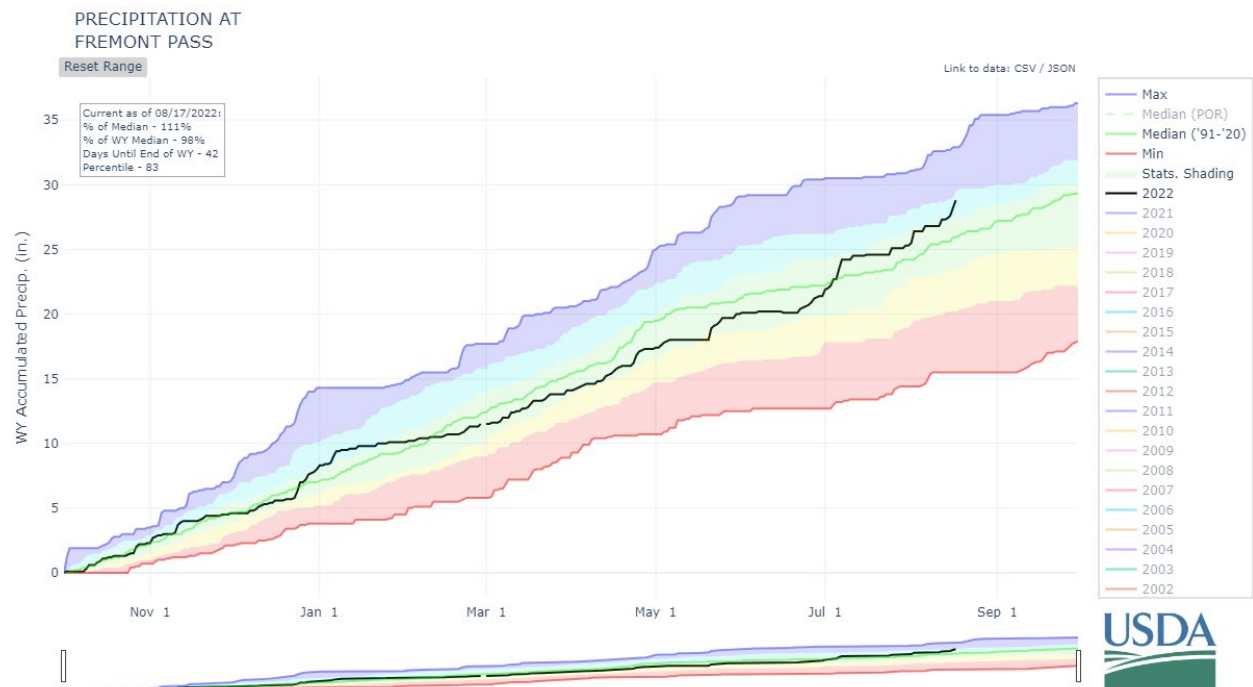


Figure 6: Cumulative Precipitation, Fremont Pass SNOTEL, August 17, 2022 (USDA).



Observed and forecast streamflows projected by the Colorado Basin River Forecast Center for the USGS gages on Gore Creek above Red Sandstone Creek and the Eagle River at Avon are shown in Figures 7 and 8. Streamflows continue to trend in the lower percentile ranges, but recent precipitation is projected to keep flows above the respective minimum instream flows of 16 cfs and 85 cfs over the next two weeks.

Figure 7: Streamflow for the USGS station on Gore Creek above Red Sandstone Creek (CBRFC).

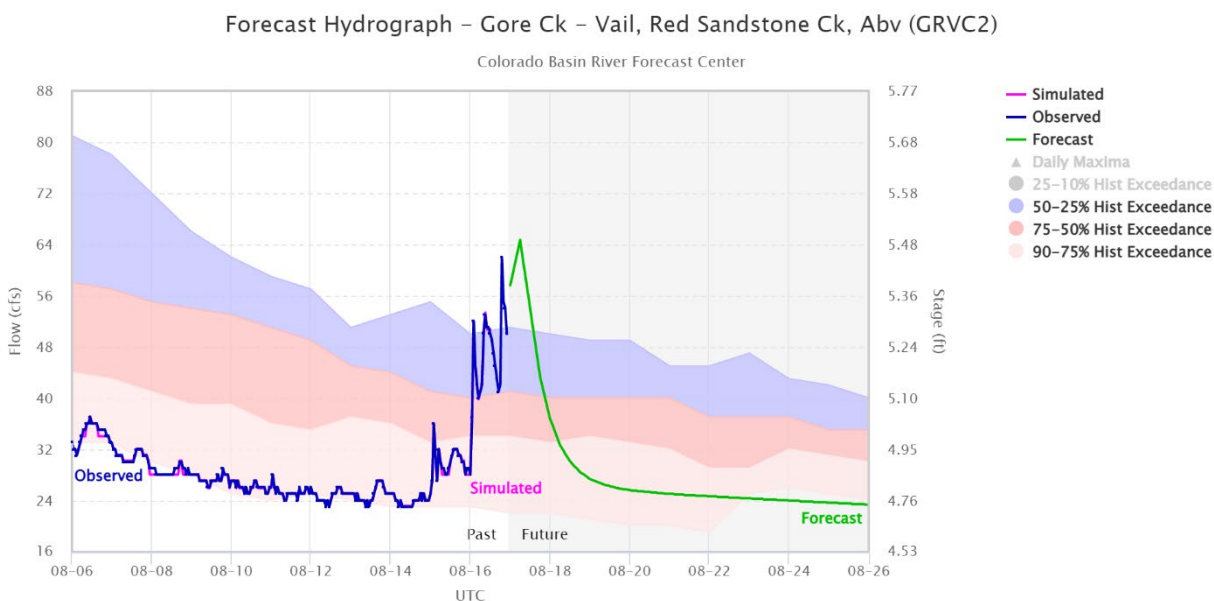
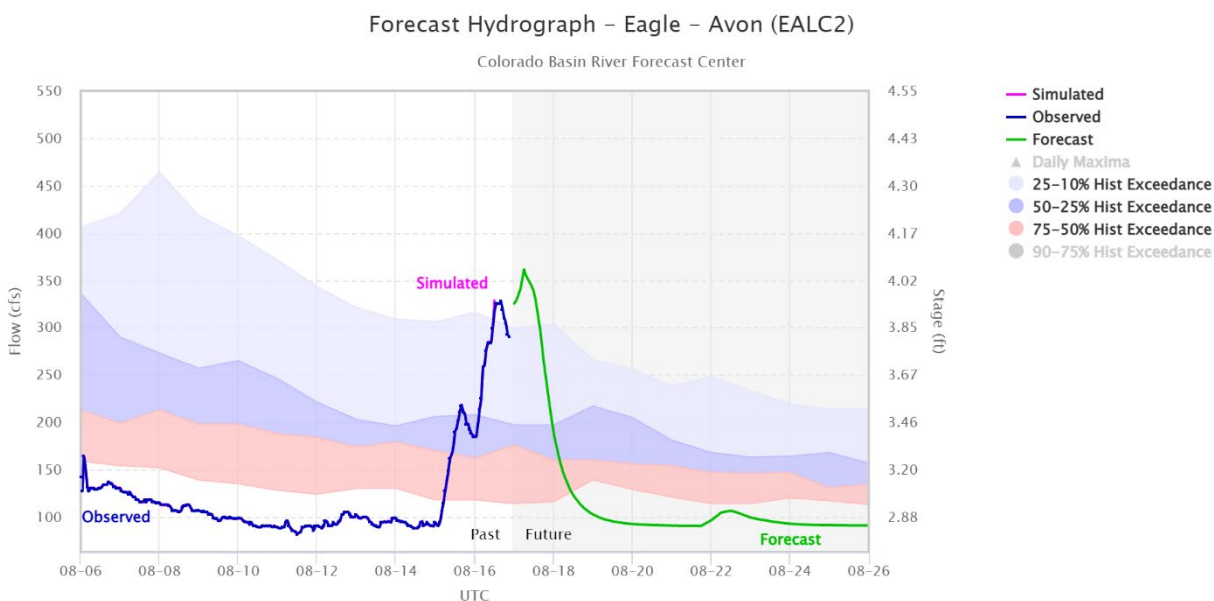


Figure 8: Streamflow for the USGS station on the Eagle River at Avon (CBRFC).





Daytime water temperatures on the Upper Colorado River at Catamount shown in Figure 9 have improved dramatically and are peaking around 70° Fahrenheit due to increased releases from upstream reservoirs to meet calls at the Shoshone Power Plant and Cameo diversion and recent rainfall. Colorado Parks and Wildlife's voluntary full day fishing closure on the upper Colorado River was removed on August 3 for the section above the Red Dirt Creek confluence but continues to remain in effect from Red Dirt Creek to Rifle. Daytime water temperatures recorded on the Eagle River below Milk Creek in Wolcott shown in Figure 10 peaked as high as 76° Fahrenheit this past week but have dropped in recent days due to rainfall. A voluntary fishing closure remains in effect on the Eagle River with an all-day fishing closure from the confluence with the Colorado River at Dotsero to the Eagle County Fairgrounds and a voluntary fishing closure after 12pm from the Fairgrounds to the Hwy 131 bridge at Wolcott.

Figure 9: Temperature for the USGS station on the Colorado River at Catamount (USGS).

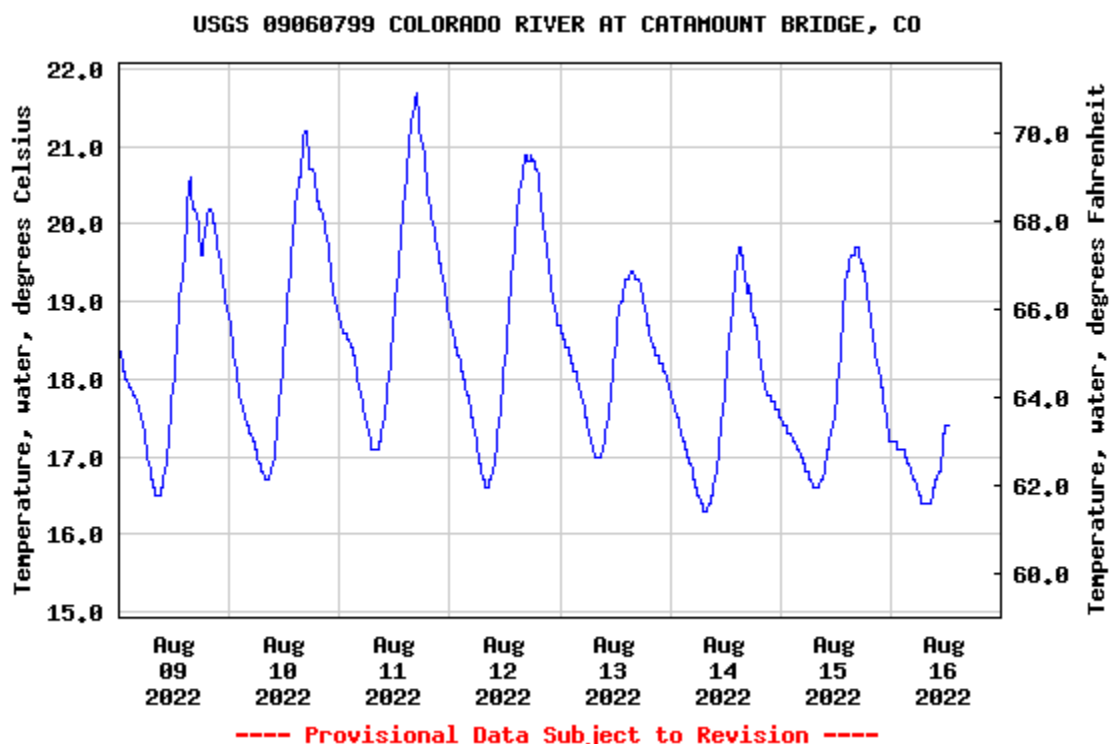
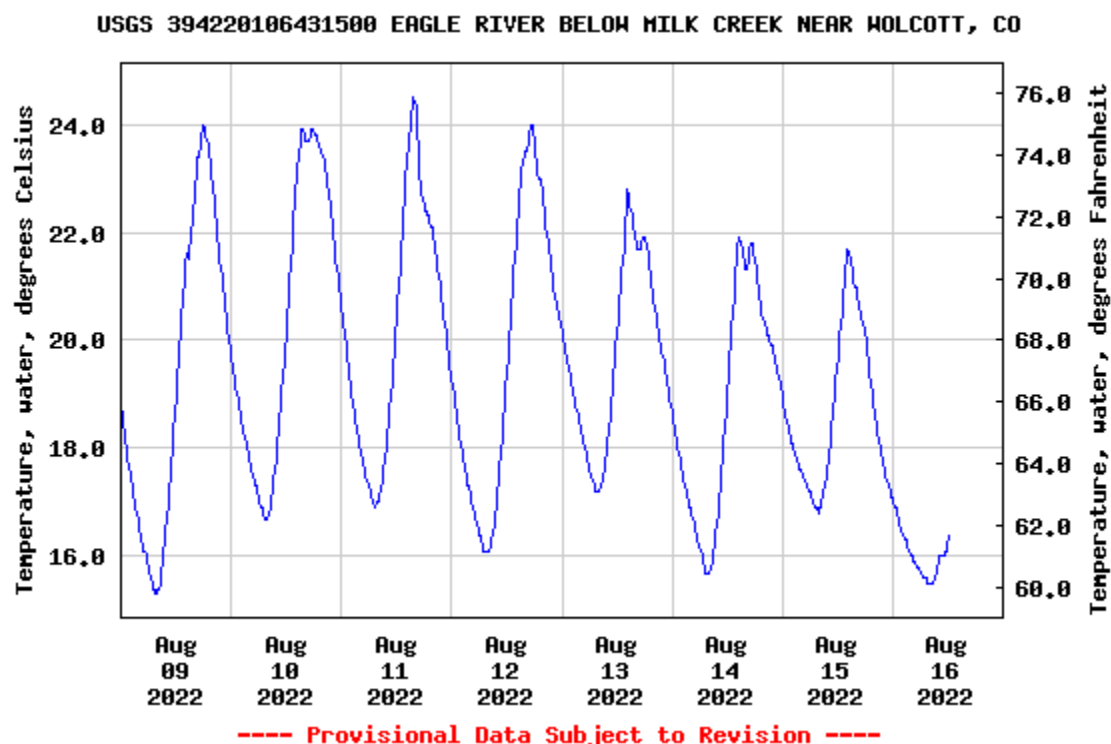


Figure 10: Temperature for the USGS station on the Eagle River below Milk Creek (USGS).



ERWSD and UERWA storage accounts are shown in Table 1 as of August 1, 2022. The storage accounts in Green Mountain, Black Lakes, and Homestake Reservoir are full. The Authority began making a release from its Eagle Park Reservoir account last week, but the account will refill on September 1 when the conservation storage pool is dispersed to shareholders so the Authority is in good position for anticipated releases from Eagle Park in September.

Table 1: ERWSD and UERWA Storage accounts as of August 1, 2022 (Helton and Williamsen).

**August 1, 2022 Volumes in Storage and Percentages of Full:**

Reservoir	ERWSD		UERWA		Total	
Green Mountain	934.00	100%	548.00	100%	1482.00	100%
Black Lakes	425.00	100%	300.00	100%	425.00	100%
Eagle Park	424.18	98%	667.11	98%	1091.30	98%
Homestake Res	250.00	100%	256.50	100%	506.50	100%
Wolford Mtn	500.00	100%	703.70	99%	1203.70	99%

Inflow projected into Lake Powell for WY 2022 will be below average, but the projection has improved ever so slightly in the past month. Figure 11 shows the most likely unregulated inflow projection for WY 2022 at 5.96 maf, or 62% of the 30-year average. The current projection for Lake Powell elevation by the US Bureau of Reclamation shown in Figure 12 indicates a likelihood that water levels will drop below the power pool elevation in late 2023 if current trends persist. The green line represents the water elevation if average hydrologic, river and operations conditions persist over the next 24 months and the red dashed line represents the expected reservoir level if the basin snowpack is well below average next winter.

Figure 11: Lake Powell Unregulated Inflow Forecast August 2, 2022 (USBR)

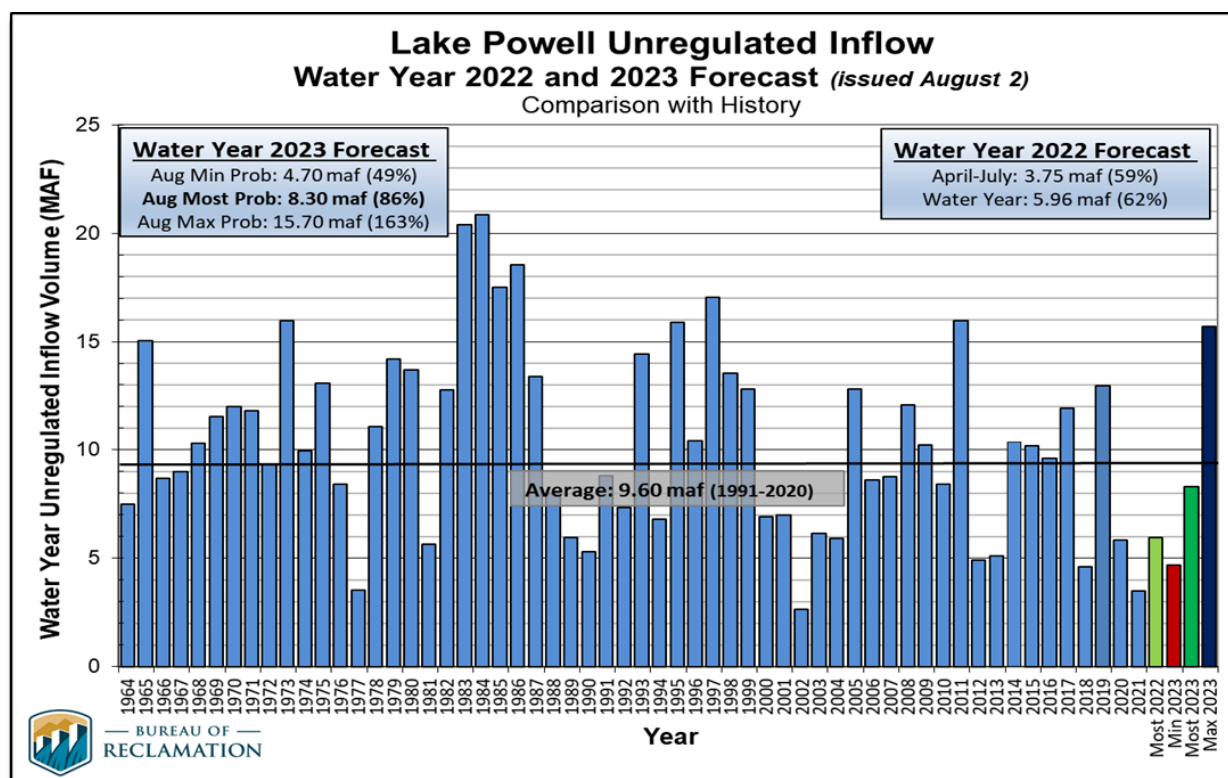
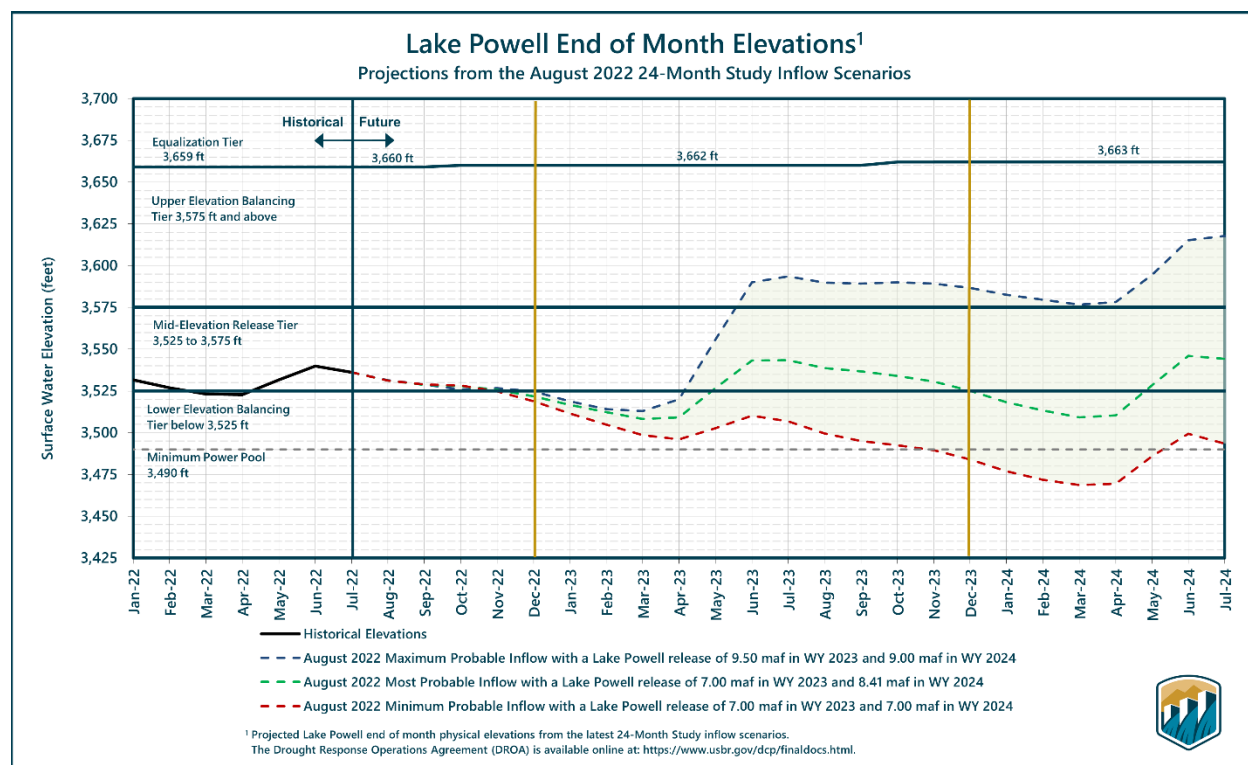
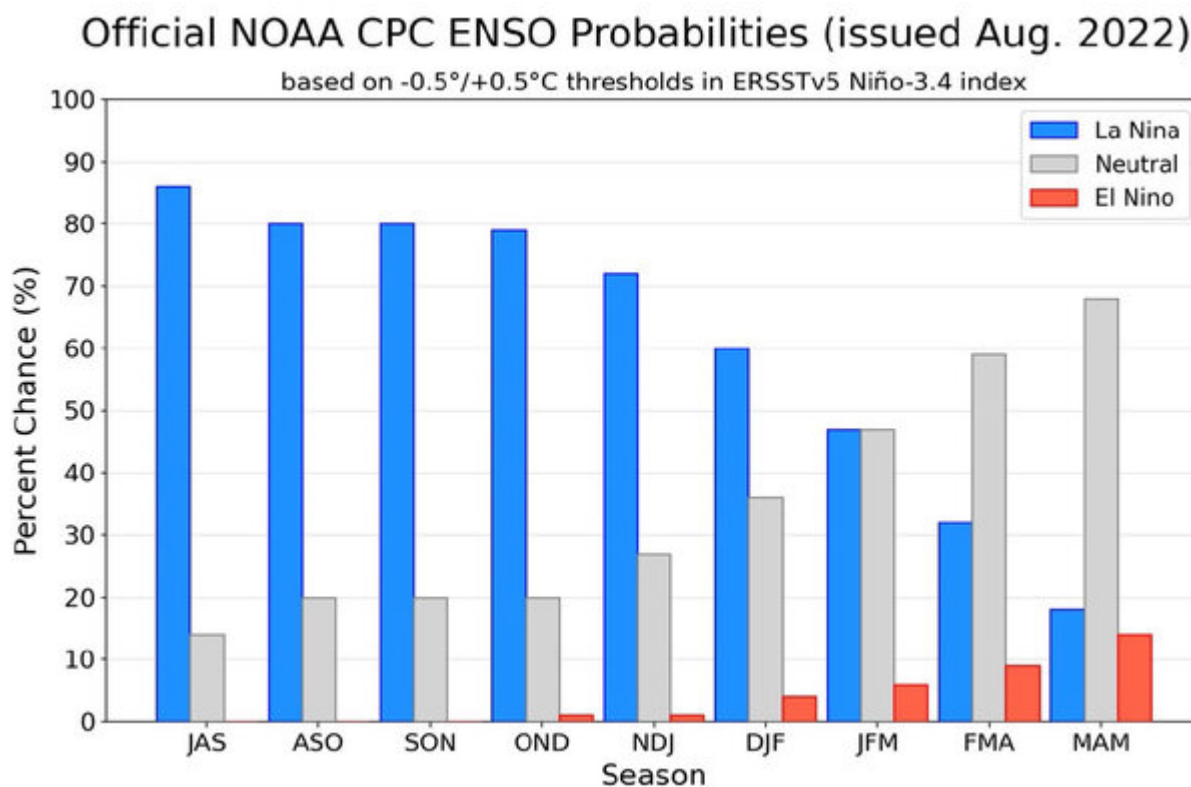


Figure 12: USBR Predicted Water Elevation August 2022 (USBR).



The NOAA Climate Prediction Center recently updated its El Niño – Southern Oscillation (ENSO) forecast using the North American Multi-Model Ensemble system. The forecast is based on results from several climate models that evaluate oceanic and atmospheric temperature circulation patterns and trends to determine the probability of El Niño and La Niña events. The ENSO blog reports that the probability that the current La Niña will continue through early winter is greater than 70%. Figure 13 shows the current forecast favoring La Niña through November, December, and January. If the predictions are accurate, this would only be the third time in which three consecutive La Niña winters have occurred in the 73-year record. La Niña tends to result in wetter than normal winters in the northern half of the state and drier than normal winters in the southern half of the state.

Figure 13: NOAA Climate Prediction Center ENSO Probabilities, August 2022 (NOAA).





## MEMORANDUM

**TO:** Boards of Directors  
**FROM:** Diane Johnson, Communications & Public Affairs Manager  
**DATE:** August 25, 2022  
**RE:** Communications and Public Affairs Report

### PFAS Information

Kailey Rosema and Sarah Crawford wrote a [news release](#) related to the EPA PFAS Health Advisory.

### Colorado River Basin System

In mid-June, the U.S. Bureau of Reclamation gave the seven Colorado Basin States 60 days to develop plans to provide an additional 2-4 million acre-feet of water in 2023 to protect critical elevations at lakes Powell and Mead. The deadline passed with the issuance of BOR's [August 2022 24-Month Study](#), which sets annual operations for Lake Powell and Lake Mead. The 2023 Operating Conditions will comply with various agreements already in place (e.g., the 2019 Drought Contingency Plan) and will move Lake Mead into its first-ever Level 2a Shortage Condition. Specific information can be found in the attached Aug. 16 U.S. Department of Interior news release, as well as several attached media reports.

### Potential state legislation about wipes

Staff and water counsel are working together on possible approaches for state legislation to mitigate sewer backups, sanitary sewer overflows, and other wastewater collection system problems that are compounded by cleaning and hygiene wipes. By flushing these wipes down the toilet rather than putting them in the trash, consumers unknowingly create clogs and blockages that cost utilities (and their customers) money, put workers at risk, and cause environmental harm. The National Association of Clean Water Agencies is urging states to pass laws that require labeling on non-flushable wipes.

There have been recent federal efforts to set flushability standards. In February 2022, the U.S. Senate and House introduced bills (the WIPPES Act); however, they have not received strong support in committee and are unlikely to pass in this Congress. State legislatures have been forced to take action. Since 2020, four states (WA, IL, OR, and CA) have passed laws requiring "Do Not Flush" labels on baby/diapering wipes and cleaning wipes composed of petrochemical-derived fibers that are sold in their state. Seven other states (ME, MD, MA, MN, NJ, NY, and RI) have introduced similar legislation. These have been met with minimal legal challenges and strong support from wastewater agencies.

Staff and water counsel believe that a coalition can be built to get a similar bill passed in Colorado. Pursuing legislation will require sustained time by staff, counsel, and possibly consultants. We'll discuss the level of effort and potential legislative approaches at the meeting.

### Attachments (or hyperlinks):

1. Aug. 16 U.S. Department of Interior: Interior Department Announces Actions to Protect Colorado River System, Sets 2023 Operating Conditions for Lake Powell and Lake Mead
2. July 18 Upper Colorado River Commission: Letter to BOR
3. Aug. 16 Colorado Sun: Southwest states given more time to agree on water cuts to prevent largest reservoirs from reaching critically low levels
4. Aug. 16 KUNC: [Colorado River states fail to meet federal deadline on restricting water use](#)
5. Aug. 4 Aspen Journalism: West Slope water managers ask: What authority do the feds have?



## Press Releases

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# Interior Department Announces Actions to Protect Colorado River System, Sets 2023 Operating Conditions for Lake Powell and Lake Mead

8/16/2022

Last edited 8/16/2022

Date: Tuesday, August 16, 2022

Contact: [Interior\\_Press@ios.doi.gov](mailto:Interior_Press@ios.doi.gov)

**WASHINGTON** — As the worsening drought crisis continues to impact communities across the West, the Department of the Interior today announced urgent action to improve and protect the long-term sustainability of the Colorado River System, including commitments for continued engagement with impacted states and Tribes. The Bureau of Reclamation also released the [Colorado River Basin August 2022 24-Month Study](#), which sets the annual operations for Lake Powell and Lake Mead in 2023 in light of critically low reservoir conditions.

Prolonged drought and low runoff conditions accelerated by climate change have led to historically low water levels in Lakes Powell and Mead. Over the last two decades, Department leaders have engaged with Colorado River Basin partners on various drought response operations. However, given that water levels continue to decline, additional action is needed to protect the System.

In addition to the actions being announced today, the Biden-Harris administration is making unprecedented investments in drought resilience and water management. President Biden's [Bipartisan Infrastructure Law](#) makes a historic \$8.3 billion investment to address water and drought challenges and invest in our nation's western water and power infrastructure, while rebuilding our existing projects to withstand a changing hydrology. Additionally, the recently passed Inflation Reduction Act includes \$4 billion in funding specifically for water management and conservation efforts in the Colorado River Basin and other areas experiencing similar levels of drought.

“The worsening drought crisis impacting the Colorado River Basin is driven by the effects of climate change, including extreme heat and low precipitation. In turn, severe drought conditions exacerbate wildfire risk and ecosystems disruption, increasing the stress on communities and our landscapes,” said **Deputy Secretary Tommy Beaudreau**. “The Biden-Harris administration is taking an all-of-government approach to mitigating the drought, and the Interior Department is committed to using every resource available to conserve water and ensure that irrigators, Tribes and adjoining communities receive adequate assistance and support to build resilient communities and protect our water supplies.”

“Every sector in every state has a responsibility to ensure that water is used with maximum efficiency. In order to avoid a catastrophic collapse of the Colorado River System and a future of uncertainty and conflict, water use in the Basin must be reduced,” said **Assistant Secretary for Water and Science Tanya Trujillo**. “The Interior Department is employing prompt and responsive actions and investments to ensure the entire Colorado River Basin can function and support all who rely on it. We are grateful for the hardworking public servants who have dedicated their lives to this work, and who are passionate about the long-term sustainability of Basin states, Tribes, and communities.”

“The solution to our challenges relies on the bedrock of a century of collaboration and partnership in the Colorado River Basin. But as water stewards, it is our responsibility to protect the system and the millions of Americans who depend on it. Today, Reclamation starts the process on actions we can take to deliver on those responsibilities,” said **Bureau of Reclamation Commissioner Camille Calimlim Touton**. “Reclamation remains fully committed to working in a consensus manner across the Upper and Lower Basins, with Tribes, and with the country of Mexico. I am confident that, by working together, we can achieve meaningful change toward a sustainable future for the river that serves as the lifeblood of the American West.”

## 2023 Operations of Lake Powell and Lake Mead

Given the 23-year ongoing historic drought and low runoff conditions in the Colorado River Basin, downstream releases from Glen Canyon and Hoover Dams – which created Lakes Powell and Mead – will be reduced again in 2023 due to declining reservoir levels. In the Lower Basin, the reductions represent the second year of additional shortage declarations, demonstrating the severity of the drought and critically low reservoir conditions.

The key determinations from the August 2022 24-Month Study include:

- **Lake Powell** will operate in the Lower Elevation Balancing Tier in water year 2023 (Oct. 1, 2022, through Sept. 30, 2023). The 24-Month Study projects Lake Powell’s Jan. 1, 2023, water surface elevation to be 3,521.84 feet – 178 feet below full pool (3,700 feet) and 32 feet above minimum power pool (3,490 feet). The August 24-Month Study projects that Lake Powell will likely release 7 million acre-feet in water year 2023 with the potential for Powell releases to range between 7 to 9.5 maf during water year 2023, depending on hydrologic conditions, as Lake Powell and Lake Mead balance storage contents under the Lower Elevation Balancing Tier.



- The Department will evaluate hydrologic conditions in April 2023 and will implement the Interim Guidelines Section 7.D by limiting water year 2023 releases (with a minimum of 7.0 maf) to protect Lake Powell from declining below 3,525 feet at the end of December 2023.
- **Lake Mead** will operate in its first-ever Level 2a Shortage Condition in calendar year 2023 (Jan. 1, 2023, through Dec. 31, 2023). The August 24-Month Study projects Lake Mead's Jan. 1, 2023, operating determination elevation to be 1,047.61 feet, which is calculated by taking Lake Mead's projected end of calendar year 2022 physical elevation (1,040.78 feet) and adding the 480,000 acre-feet of water held back in Lake Powell to Lake Mead's capacity to maintain operational neutrality. The projected elevation of 1,047.61 feet reflects a Level 2a Shortage Condition, within the DCP elevation band of 1,045 and 1,050 feet, with required shortage reductions and water savings contribution for the Lower Basin States and Mexico, pursuant to Minute 323, as follows:
  - Arizona: 592,000 acre-feet, which is approximately 21% of the state's annual apportionment
  - Nevada: 25,000 acre-feet, which is 8% of the state's annual apportionment
  - Mexico: 104,000 acre-feet, which is approximately 7% of the country's annual allotment
  - There is no required water savings contribution for California in 2023 under this operating condition.

In May 2022, drought operations to protect Lake Powell were implemented under the Upper Basin Drought Response Operations Agreement, and Glen Canyon Dam releases were reduced under the 2007 Interim Guidelines, which together provided approximately 1 million acre-feet of additional water to help protect water levels at Lake Powell. Building on these important responsive actions, Reclamation will begin efforts to modify low reservoir operations at both Lake Powell and Lake Mead to be prepared to reduce releases from these reservoirs in 2024 to address continued drought and low runoff conditions in the Basin.

Reclamation will continue to implement the applicable provisions of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and coordinated operations for both reservoirs: Minute 323 to the 1944 U.S. Mexico Water Treaty; and the 2019 Drought Contingency Plans.

## Call for Basin-Wide Conservation

In recent months, Reclamation has shared updated information documenting the increasing risks that will continue to impact Lake Powell and Lake Mead. Reclamation's "[Protection Volume Analysis](#)" details that, depending on future snowpack and runoff, a range of actions will be needed to stabilize elevations at Lake Powell and Lake Mead over the next four years (2023-2026). The analysis shows, depending on Lake Powell's inflow, that the additional water or conservation needed ranges from 600,000 acre-feet to 4.2 maf annually.

In June 2022, Commissioner Touton testified before the [U.S. Senate Committee on Energy and Natural Resources](#) and called on water users across the Basin to take actions to prevent the reservoirs from falling to critically low elevations that would threaten water deliveries and power production. Reclamation is using the best available science and actively collaborating with water users across the Basin to determine the best ways to meet this increased conservation need.



# UPPER COLORADO RIVER COMMISSION

50 S. 600 E. Ste #100 • Salt Lake City, UT 84102 • 801-531-1150 • [www.ucrccommission.com](http://www.ucrccommission.com)

July 18, 2022

Ms. Camille Touton  
Bureau of Reclamation  
1849 C Street NW  
Washington DC 20240

Upper Division States 5 Point Plan for Additional Actions to Protect Colorado Storage Project Initial Units:

Dear Commissioner Touton,

The Upper Division States of Colorado, New Mexico, Utah, and Wyoming, through the Upper Colorado River Commission (UCRC), are writing in response to your request that the Colorado River Basin States take additional actions in response to the continuing drought and depleted system storage. During your testimony to the Senate Natural Resources Committee on June 14, 2022, you asked the Basin States to develop plans to provide an additional 2-4 million acre-feet (MAF) of water in 2023 to protect critical elevations at Lake Powell and Lake Mead. You also indicated that, absent such plans being developed by mid-August, the Bureau of Reclamation is prepared to take unilateral action under its existing authority to protect the system.

The Upper Division States recognize that bringing the system into balance will require collaboration and efforts from all Basin States and water use sectors. Accordingly, we stand ready to participate in and support efforts, across the Basin, to address the continuing dry hydrology and depleted storage conditions. However, the options the Upper Division States have available to protect critical reservoir elevations are limited. The Upper Basin is naturally limited to the shrinking supply of the river, and previous drought response actions are depleting upstream storage by 661,000 acre-feet. Our water users already suffer chronic shortages under current conditions resulting in uncompensated priority administration, which includes cuts to numerous present perfected rights in each of our states.

In order to proactively support critical infrastructure and resources related to the Colorado River Storage Project Act Initial Units, we have developed a 5 Point Plan. We intend to implement the 5 Point Plan to the extent it is effective, in conjunction with plans developed for the Lower Basin. The components of the 5 Point Plan are as follows:

- (1) Seek amendment and reauthorization of the System Conservation Pilot Project legislation originally enacted in 2014. The amendment will provide for extension of the authorization and reporting periods to September 30, 2026, and September 30, 2027, respectively, and seek funding to support the program in the Upper Basin. Upon obtaining reauthorization, the necessary funding, and finalizing any required agreements, we intend to reactivate the program in the Upper Basin in 2023.
- (2) Commence development of a 2023 Drought Response Operations Plan (2023 Plan) in August 2022 with finalization in April 2023 consistent with the Drought Response Operations Plan Framework (Framework). A 2023 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 Drought Contingency Plan 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.

The challenges in the Colorado River Basin affect us all and require collaboration across the entire Basin. We request your support as we advance our 5 Point Plan, including for federal legislation to reauthorize the System Conservation Pilot Program and for funding to support the Plan through September 2026.

Reclamation data shows that Lower Basin and Mexico depletions are more than double the depletions in the Upper Basin. Therefore, additional efforts to protect critical reservoir elevations must include significant actions focused downstream of Lake Powell. Otherwise, the effectiveness of our 5 Point Plan will be limited.


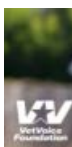
We look forward to working with you on this critical effort while also developing sustainable long-term solutions to address the challenges we face in the Colorado River Basin.

Sincerely,



Charles Cullom  
Executive Director  
Upper Colorado River Commission

Cc Rebecca Mitchell, Upper Colorado River Commissioner, Colorado  
Estevan Lopez, Upper Colorado River Commissioner, New Mexico  
Gene Shawcroft, Upper Colorado River Commissioner, Utah  
Brandon Gebhart, Upper Colorado River Commissioner, Wyoming  
Tom Buschatzke, Director, Arizona Department of Water Resources  
Peter Nelson, Chairman, Colorado River Board of California  
John Entsminger, General Manager, Southern Nevada Water Authority  
Tanya Trujillo, Assistant Secretary of Water and Science, Department of the Interior




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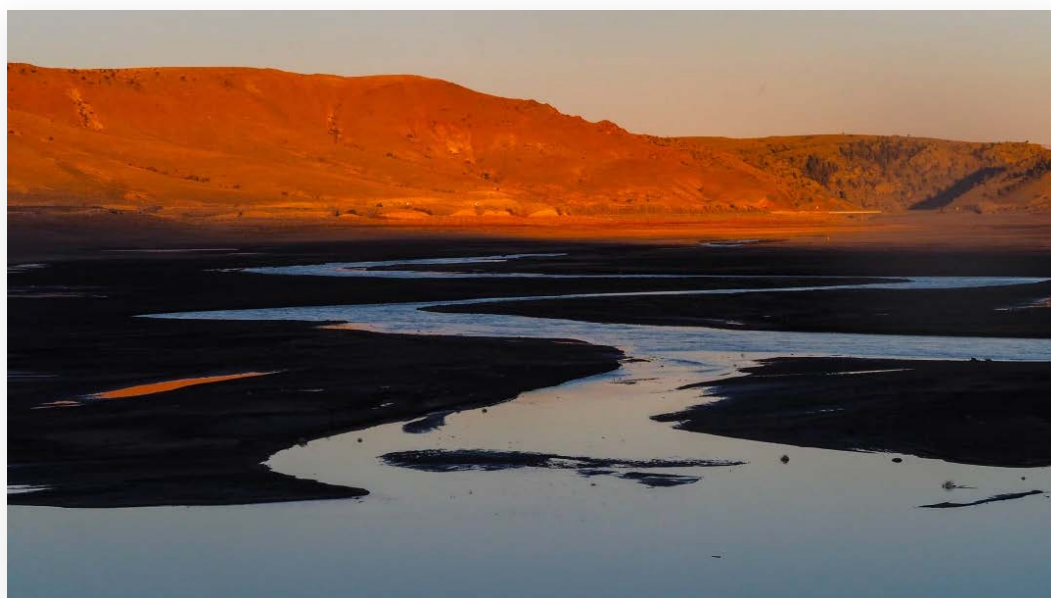


## WATER

# Southwest states given more time to agree on water cuts to prevent largest reservoirs from reaching critically low levels

Despite giving states more time to negotiate, federal officials said some cuts were coming to parts of the Colorado River Basin

**Chris Outcalt** 1:42 PM MDT on Aug 16, 2022



Blue Mesa Reservoir in Gunnison County shows the effect of a water draw down on October 29, 2021. The reservoir has lowered because water from it is being released downstream to increase the volume of water available to downstream users that rely on the Colorado River. Blue Mesa is fed by the Gunnison River, one of the Colorado River's largest tributaries. (Dean Krakel, Special to The Colorado Sun)



**Credibility:**  Original Reporting  Sources Cited  Subject Specialist

**F**ederal officials Tuesday gave more time to Colorado and its neighboring states to agree on the massive cuts in Colorado River use needed to protect the country's two largest reservoirs, even as they announced that historic cuts were coming to parts of the Southwest.

Officials said that Lake Mead, east of Las Vegas, would operate in its first-ever "level 2a shortage condition" in 2023, triggering previously agreed upon reductions in water use in Arizona, Nevada and Mexico. California does not take cuts under this shortage level.

In Arizona, the cuts amount to 592,000 acre-feet, or 21% of the state's annual apportionment. In Nevada, the cuts will be 92,000 acre-feet, or about 8%. And Mexico will take a 7% or 104,000 acre-foot hit.

Bureau of Reclamation Commissioner Camille Touton said during a Tuesday call with reporters that the federal government would continue to work with the seven Colorado River Basin states to find consensus on new water cuts in response to federal officials identifying the need for 2 million to 4 million acre-feet in water savings needed next year. Officials identified those cuts as necessary to protect critical infrastructure at Lake Powell and Lake Mead as well as hydropower production.

Touton, however, gave no indication as to what specific cuts the federal government is willing to make if a collective agreement is not eventually reached. Instead, she said, "more information will be forthcoming regarding next steps and the process that we will follow."

There was little in today's announcement that was responsive to the commissioner's call for 2 to 4 million acre-feet reduction in use, said Jack Schmidt, director of the Center for Colorado River Studies at Utah State University.



“None of the numbers that were talked about today had anything to do with the 2 to 4 million acre-foot call,” Schmidt said. “Essentially, in the nicest of ways, the announcement today said we aren’t there yet. I’m not going to say we failed because we can’t fail. But they certainly said ‘we missed the deadline and we’re going to keep working at it.’”

Federal officials initially gave the states two months to come up with ideas for how to meet that target, with a Tuesday deadline.

TODAY’S UNDERWRITER

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“There are a lot of conversations about how we collectively mitigate the impacts of drought and climate change on the Colorado River and our shared goal of formulating durable and equitable solutions,” Touton said during the call. “But to date, the states collectively have not identified and adopted specific actions of sufficient magnitude that would stabilize the system.”

Touton and other officials continually stressed the need for a collaborative approach.

“We’re continuing to work with the basin states because we believe that the solution here is one of partnership,” Touton said.

“





# Essentially, in the nicest of ways, the announcement today said we aren't there yet.

– *Director of the Center for Colorado River Studies at Utah State University Jack Schmidt*

“There’s still time for that,” said Tommy Beaudreau, deputy secretary of the interior.

Water managers also said they would study whether it might be possible to operate Lake Powell at a level below what is now considered “deadpool,” the level at which water cannot flow beyond the dam.



The bureau also said it would work with the Upper Basin states of Colorado, Utah, New Mexico and Wyoming, tribes and other stakeholders to implement “substantial releases from Upper Basin reservoirs” to help prop up the water level at Powell.

Lake Powell could fall below elevation 3,490, the lowest level at which Glen Canyon Dam can generate hydropower, as early as sometime next year, according to the bureau’s latest report.

## Upper Basin looks south

Flows on the Colorado River have declined roughly 20% since 2000 amid a drought scientists believe is the driest 22-year stretch in the past 1,200 years.



Forty million people rely on the Colorado River for drinking water and farmers and ranchers use the water to irrigate millions of acres of farmland.

“Every sector in every state has a responsibility to ensure that water is used with maximum efficiency,” assistant secretary for water and science Tanya Trujillo said in a written statement. “In order to avoid a catastrophic collapse of the Colorado River System and a future of uncertainty and conflict, water use in the Basin must be reduced.”

The Upper Basin responded to the commissioner’s call for cuts in a July 18 letter. The letter laid out an Upper Basin plan for conservation, but did not identify a specific amount of water that could be saved.



Glen Canyon Dam at Page, Arizona, holds back the massive Lake Powell. Since this photo was taken on Aug. 21, 2021, drought conditions in the West have led levels of water in the lake to drop near where the dam will no longer be able to generate electricity. (Bureau of Land Management)



Signed by Charles Cullom, the executive director of the Upper Colorado River Commission, the letter noted that the options available to the Upper Basin states to help maintain critical reservoir elevations are “limited,” and that “significant actions” would need to be taken downstream of Lake Powell.

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Recommended

### **Upper Basin states layout plan to help the Colorado River, but still say Lower Basin needs to chip in more**

Top water officials in Colorado have maintained the majority of the cuts identified by the commissioner would need to come where most of the water is used — the Lower Basin states of California, Arizona and Nevada.

Colorado River Commissioner Becky Mitchell said discussions about how to cut water use will continue among the seven basin states.

“I think what we saw today is there is not a plan out of the Lower Basin states,” Mitchell said. “I’m still hopeful that there will be discussions with our Lower Basin comrades to come up with something.”

Mitchell also reiterated that the Upper Basin plan would not be as effective without significant action downstream.

“This will require leadership from the U.S. Department of the Interior through the U.S. Bureau of Reclamation, and bold action across the Basin,” Mitchell said in a statement. “Downstream of Lake Mead and Lake Powell, depletions must come into balance with available supply.”





In 2021, according to Bureau of Reclamation numbers compiled by the UCRC, the Upper Basin used about 3.5 million acre-feet. That provisional number includes water lost to evaporation. The UCRC numbers show 2021 water use plus evaporation losses in the Lower Basin at nearly 10 million acre-feet, which includes about a 1.5 million acre-foot portion for Mexico.

## Water lost to evaporation

It's unfortunate that the states haven't arrived at meaningful reductions in consumptive use, Andy Mueller, general manager of the Colorado River District, said.

"I think it's even more unfortunate that the Bureau and Department of the Interior have tools at their disposal that could make meaningful progress toward that and have shown an unwillingness to implement those tools," he said.

At the moment, water lost to evaporation in Lower Basin reservoirs and during transit is not factored into the overall calculations in Arizona, California and Nevada. Mueller said federal water managers including those numbers would account for a significant amount of water.

"If you assess those losses against contracting parties then their total consumptive use would drop by 1.2 million acre-feet," Mueller said. "But right now the whole system gets hit with that. They call it a structural deficit, we call it overuse."





Among other points, the Southern Nevada Water Authority suggested the Lower Basin states should account for water lost to evaporation in a letter sent to federal water managers this week.

“Charge each contractor for evaporation losses in the Lower Basin so that the Lower Basin can reduce its reliance on excess water from the Upper Basin to balance reservoirs,” John Entsminger, general manager of the Southern Nevada Water Authority, wrote.

“If you want water, and you need it this year, the bureau should be doing that right now,” Mueller said. “My understanding is they’re afraid of litigation from the Lower Basin, specifically California, and my answer to that is leadership involves risks and they need to exhibit leadership now.”



With green weeds growing on the dry shoreline, a pair of boats travel the Blue Mesa Reservoir Monday July 11, 2022. (William Woody, Special to The Colorado Sun)

Water lost through evaporation is already factored into Upper Basin numbers.



Utah State's Schmidt also said now is a time that "demands federal leadership."

"The federal government needs to be the grownup in the room," he said.

Although the bureau indicated today that it might consider the evaporation issue, Mueller said the lack of specific language frustrated him.

"Why are we in a crisis? Yes, climate change is playing a role, but we are also in a crisis because of the bureau's failure to institute proper accounting on the Lower Basin," Mueller said. "It's frustrating that they're going to 'prioritize and prepare for additional administrative initiatives.' Frankly, George Orwell could have written that sentence."

## Preserving the dam

Depending on snowpack and runoff, between 600,000 and 4.2 million acre-feet will need to be conserved over the next four years to stabilize lakes Powell and Mead, according to a Bureau of Reclamation analysis. (An acre-foot is the amount of water it takes to cover an acre in a foot of water or about 325,000 gallons, enough for about two or three households annually.)

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Recommended

### How much water is lost in the transfer between Flaming Gorge and Lake Powell?

The bureau also released on Tuesday its August 24-Month Study, a key report that indicates how Powell and Mead will operate in the upcoming year, which triggered the cuts for Arizona, Nevada and Mexico. The study projects the water level at Lake Powell in January 2023 will be at about 3,522 feet above sea level, 32 feet above the elevation at which Glen Canyon Dam can no longer generate hydropower, 3,490 feet.





It will be at least another couple months until officials can start to predict how the next snow season may or may not help this problem, said Jeff Lukas, an independent water and climate researcher based in Lafayette.

“In terms of what’s happening hydrologically, we’ll start observing and speculating as early as October and November, but not until mid-December is there really enough on the ground to tip you off as to how the rest of the year might play out,” Lukas said. “What you do know going into October and November is the soil moisture, which we’ve seen is pretty important when it’s massively depleted.”

This year, water managers will send 500,000 acre-feet from Flaming Gorge Reservoir on the Utah-Wyoming border to Powell. Last year, federal officials pursued emergency action that included releasing 36,000 acre-feet from Blue Mesa Reservoir near Gunnison and 125,000 acre-feet from Flaming Gorge.

The bureau said that other actions specific to the Upper Basin would include studying whether modifications could be made to Glen Canyon Dam so that water could be pumped or released below below certain low water elevations.

Matt Rice, director of the Colorado Basin program at American Rivers, said that although he understands the bureau is in a tough position, he was a little surprised by the lack of specifics in the federal announcement Tuesday.

“We are in a crisis mode, and I appreciate the bullet points,” Rice said, “but I was a little surprised by how broad it was.”

Nevertheless, the federal officials on Tuesday’s call said the stakeholders in the Colorado River Basin could achieve meaningful change by working together.



“The solution to our challenges relies on the bedrock of a century of collaboration and partnership in the Colorado River Basin,” commissioner Touton said. “But as water stewards, it is our responsibility to protect the system and the millions of Americans who depend on it.”

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**Chris Outcalt**

Chris Outcalt covers Western water issues for The Colorado Sun.

**Read More:** Becky Mitchell Bureau of Reclamation Colorado River  
Colorado River Drought Plan

## The Latest

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#### Colorado schools, child care centers must test water for lead, make fixes

Schools and child care facilities will have until May 31 to test their water and will have to make fixes if lead levels are 5 parts per billion or higher

Ann Schimke 2 hours ago



### ENVIRONMENT

#### What in the piping plover? New website sheds light on Colorado’s 350 most sensitive species.



**WATER**

# West Slope water managers ask: What authority do the feds have?

*Projects with Reclamation ties could be at risk*



by **Heather Sackett**

August 4, 2022



Houseboats on Lake Powell on Dec. 13, 2021, near Wahweap Marina, where the quarter-mile-long boat ramp is unusable due to low water levels. The Bureau of Reclamation Commissioner has said 2 to 4 million more acre-feet of conservation is needed to protect the system, leaving water managers wondering what authority the feds have over upper basin water projects. CREDIT: HEATHER SACKETT/ASPEN JOURNALISM

As the deadline approaches for the seven Colorado River basin states to come up with a plan to conserve water, some Colorado water managers are asking what authority the federal government has in the upper basin and which water projects could be at risk of federal action.

U.S. Bureau of Reclamation Commissioner Camille Touton sent water managers scrambling when she announced in June that they had a 60-day window to find another 2 to 4 million acre-feet of water to conserve or the federal government would step in to protect the system. With many reservoirs, transbasin diversion systems and irrigation projects in Colorado tied in one way or another to the Bureau of Reclamation, some are asking if the water in these buckets could be commandeered by the feds to make up the shortfall.

“I think that there’s probably a good argument that the Secretary (of the Interior) has some authority under those projects,” said Eric Kuhn, Colorado River author and former Colorado River Water Conservation District general manager. “The projects on the Western Slope and in the upper basin states that are owned by the federal government and are ultimately under the authority of the Secretary of the Interior, those are the projects at risk.”

There are many dams and reservoirs across Colorado that are tied to the Bureau of Reclamation’s 20th century building frenzy to impound water and “reclaim” arid regions through irrigation. On the Western Slope, some of the well-known projects include the Fryingpan-Arkansas Project (Ruedi Reservoir), Dallas Creek Project (Ridgway Reservoir), the Dolores Project (McPhee Reservoir), Paonia Reservoir, the Grand Valley Project, the Silt Project (Rifle Gap Reservoir), the Uncompahgre Project (Taylor Park Reservoir) and more.

In general, the local entities like conservancy districts, irrigators and municipalities who use the water are responsible for repaying the Bureau for the cost of the project. But the infrastructure is owned by the Bureau of Reclamation. Some projects are operated by Reclamation and some are operated by a local entity. Many also have a hydropower component.

“I think each project operator is having to look at their contractual obligations with the Bureau and their attorneys are going back over those with a fine tooth comb to see if the arm of the Bureau can reach up through Lake Powell and into the upper basin states,” said Kathleen Curry, a rancher and Gunnison County representative on the Colorado River Water Conservation District. “All of the upper basin projects are going to need to look real hard at what authority the Bureau has.”



Last year Reclamation made emergency releases out of Blue Mesa, Flaming Gorge and Navajo reservoirs to prop up Lake Powell. In this instance their authority was not questioned since these reservoirs are, along with Lake Powell, the four initial reservoirs of the Colorado River Storage Project. They store what's called "system water," which is used specifically to help the upper basin meet its delivery obligations to the lower basin.

But water managers still don't know exactly what, if anything, Reclamation is allowed to do with the water contained in other reservoirs with Reclamation ties.



CREDIT: PHOTO: COURTESY OF BUREAU OF RECLAMATION

The crest of the dam across the Fryingpan River that forms Ruedi Reservoir, which can hold 102,373 acre-feet of water. Some Western Slope water managers are asking what authority the Bureau of Reclamation has over water projects with Reclamation ties in the upper basin.

## **No answers from officials**

At the River District's third quarterly board meeting in July, board members repeatedly tried to pin down answers from federal and state officials without much luck.

Montrose County representative and state Rep. Marc Catlin asked state engineer Kevin Rein where he stood on whether the Bureau of Reclamation could make reservoirs with Reclamation ties release water downstream to Lake Powell to meet the 2 to 4 million acre-feet conservation goal.

“If the Bureau of Reclamation comes into the state of Colorado and says it wants to move water... down to Lake Powell, what’s the state engineer going to do?” Catlin asked. “Are those water rights under state law or federal law?”

Rein did not know the answer.

“I’m not sure what authority — this is not one of those rhetorical ‘I’m not sure,’ I really am not sure — what authority the Bureau of Reclamation would have to induce a federal project with state water rights to release them to get to Powell,” Rein said.

Later in the meeting, Katrina Grantz, the Bureau of Reclamation’s Upper Colorado Basin Assistant Regional Director, gave a presentation and took questions from board members. Curry asked if changes could be proposed to the operation of projects within the 15 counties represented by the River District with federal ties to get closer to the 2 to 4 million acre-feet. Grantz side-stepped the question.

“At this point we are not looking at specific locations,” she said. “I would turn it around and say: Are there areas where you locally think there might be areas to conserve?”

River District General Counsel Peter Fleming said the authority of the feds in the upper basin is untested. This is partly because the upper basin has dozens of small Reclamation projects as well as thousands of individual water users on private ditch systems that are not affiliated with the federal government. Colorado has generally been left alone to administer this complex system of water rights under the state doctrine of prior appropriation, which means older water rights get first use of the river.

The lower basin, in contrast, has only about 20 diversions — and only six or so big ones — from the Colorado River. And each entity that uses water from Lake Mead has to have a contract with Reclamation, meaning the federal government is directly involved with water deliveries.

“The reason I think these issues are untested is historically the secretary’s role in the upper basin has been different than the secretary’s role in the lower basin,” Fleming said. “It’s much more hands-off. The difference in river administration is huge.”

Fleming said that the River District does not have advice for its water users on the situation, other than to reiterate the upper basin stance that the responsibility to come up with the 2 to 4 million acre-feet lies overwhelmingly with the lower basin.



“At the end of the day I think there will be a big effort to try to resolve things through agreement and I believe the secretary will exercise her authority to the greatest extent she can without triggering litigation,” Fleming said.

Water managers may not have to wait long to get some clarity. The deadline for the states to come up with a conservation plan before the feds take action to protect the system is fast approaching. The upper basin states, through the Upper Colorado River Commission, have put forward a **5 Point Plan**, which lays out actions they say are designed to protect the reservoirs.

Amee Andreason, public affairs specialist with the Bureau of Reclamation, said officials may answer the question of federal authority in the upper basin at a media event on Aug. 16 that coincides with the release of the August 24-month study, which lays out reservoir operations for the following water year.

If the feds end up curtailing uses in the lower basin, it could set a precedent that would strengthen the argument that they can do the same in the upper basin, Kuhn said.

“That’s one I think is the elephant in the room,” he said. “The fact that the River District board was asking about authorities tells you people are thinking about it.”

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