



M E M O R A N D U M

TO: Board of Directors
FROM: Brian Thompson, Government Affairs Supervisor
DATE: August 16, 2024
RE: August 22, 2024, Board Meeting

This memorandum shall serve as notice of a Special Meeting of the Board of Directors of the Eagle River Water & Sanitation District:

Thursday, August 22, 2024
12:30 p.m.

This meeting will be held at:

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

The meeting can also be accessed on Microsoft Teams. Login information can be requested by sending an email at least 24 hours in advance to info@erwsd.org.

Input from members of the public is 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.



BOARD OF DIRECTORS SPECIAL MEETING

August 22, 2024

12:30 p.m.

Walter Kirch Conference Room

AGENDA

- | | <u>Attachment Link</u> |
|--|-------------------------------|
| 1. Introductions | |
| 2. Public Comment | |
| 3. Board Compliance Training | Informational |
| 4. Action Items | |
| 4.1. Minutes from July 25, 2024, Regular Meeting | Action Item |
| 4.2. Contract Log | Action Item |
| 5. Information Reports | |
| 5.1. Board committees | Informational |
| 5.2. June Authority meeting summary | Informational |
| 6. Board Member Input | |
| 7. General Manager Report – Siri Roman | |
| 7.1. GM information items | |
| 7.2. Business Administration report – David Norris | |
| 7.2.1. Financial outlook | |
| 7.3. Operations report – Brad Zachman | Informational |
| 7.4. Engineering and Water Resources report – Jason Cowles | Informational |
| 7.4.1. Greenhouse gas emissions inventory | |
| 7.5. Communications and Public Affairs report – Diane Johnson | Informational |
| 8. Water Counsel Report – Kristin Moseley | |
| 9. General Counsel Report – Kathryn Winn | |
| 10. Executive Session | |
| 10.1. Receive legal advice regarding Bolts Lake and Battle North/Minturn Case
Nos. 21CW3029 and 21CW3030, pursuant to §24-6-402(4)(b), C.R.S. | Confidential |
| 11. Any Action as a Result of Executive Session | |
| 12. Adjournment | |



MEMORANDUM

TO: Boards of Directors
FROM: Brian Thompson, Government Affairs Supervisor
DATE: August 16, 2024
RE: Board Compliance Training

As discussed at the Jul. 25 board meetings, it is recommended that the boards regularly participate in compliance training aligned with best practices endorsed by the Special District Association (SDA) and other industry standards. For 2024, this training is divided into four topics with each topic presented at a board meeting. At the Aug. 22 board meetings, Tom Borawski, ERWSD People Operations Manager, will present on the second topic: **Preventing and Addressing Discrimination**.

According to the Equal Employment Opportunity Commission (EEOC), continued monitoring and education are crucial to ensuring fair and equitable treatment by all individuals serving in public roles, including government boards. Discrimination training will better prepare board members to contribute to the organizational goals of:

1. Promoting a Diverse and Inclusive Workplace:

Discrimination training helps create an environment where all employees and board members feel valued and respected, regardless of their background. This fosters a culture of inclusion and diversity, which can lead to increased innovation, creativity, and problem-solving within the organization.

2. Enhancing Morale, Retention, and Productivity:

When employees see that their organization, including board members, are committed to fairness and equity, it boosts morale and job satisfaction. This commitment can lead to higher employee retention rates, as workers are more likely to stay with an employer that values diversity and inclusivity. A discrimination-free workplace also leads to increased productivity and overall organizational performance.

3. Reducing Legal Risks and Liabilities:

Employers have a legal obligation to prevent discrimination in the workplace. Effective training can help reduce the incidence of discriminatory behavior, thereby decreasing the likelihood of costly lawsuits and penalties. The EEOC reports that organizations with comprehensive training programs are better equipped to handle discrimination complaints, leading to more favorable outcomes.

By addressing these areas, discrimination training not only helps to prevent incidents of bias and harassment, but also contributes to building a more equitable, productive, and positive work environment.

The Aug. 22 training will focus on behavioral responses to potential discrimination-related issues the boards may encounter. Moreover, this training is intended to be informational; if a director wishes to ask a detailed question or discuss a personal situation, we can arrange a private meeting with the GM and/or counsel. There are 15-20 minutes dedicated on the ERWSD and UERWA board meeting agendas for this training.



2024 ERWSD CONTRACT LOG

Contract No.	Date Executed	Project Name	Contractor	Contract Amt.	Project Mgr.	Account No.	Total Amount per Account	Contract Type	Status / Description	District Total	Authority Total
24.15.066	07/17/24	Well R7 Emergency Casing Repair	Colorado Polymer Repair, LLC	\$19,221.93	J. Beirsto	10.3.2.20.09.029	19,221.93	Services Agreement	Emergency repair of broken casing pipe at well R7 using a coating and wrap product.		
24.15.067	Pending	Edwards WWTF Roof Repairs	Turner Morris Incorporated	\$27,881.00	D. Duerr	10.3.2.10.13.114	\$27,881.00	Construction Contract	Maintenance repairs, base flushing and cap metal repairs for Edwards WWTF roof.		
24.15.068	Pending	Avon WWTF Manhole 1 And 2 Channeling	PRC Maintenance & Construction LLC	\$5,000.00	D. Duerr	10.3.2.10.03.447	\$5,000.00	Construction Contract	Cleaning manhole base and forming, pouring, and finishing manhole channel in Manhole 1 and 2.		
24.15.069	Pending	Cityworks Support Services	Power Engineers, Inc.	\$45,000.00	J. Way	10.1.9.00.45.200	\$45,000.00	IT Service Agreement	Consulting and support for Cityworks application.		



BOARD COMMITTEES

DISTRICT

<i>Audit/Budget</i>	Dick Cleveland Steve Coyer *Sarah Smith Hymes
<i>Employee Housing</i>	Steve Coyer Rick Pylman *Robert Warner, Jr.
<i>Retirement Plans</i>	Robert Warner, Jr. Siri Roman David Norris *Dick Cleveland
<i>Organizational Development</i>	Robert Warner, Jr. Dick Cleveland *Timm Paxson
<i>Water Quality</i>	Sarah Smith Hymes Timm Paxson *Steve Coyer

AUTHORITY

<i>Audit/Budget</i>	Geoff Dreyer George Gregory *Joanna Kerwin
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JOINT

<i>Rules and Regulations</i>	Kim Bell Williams (A) Robert Warner, Jr. (D) *George Gregory (A) *Rick Pylman (D)
<i>Water Conservation</i>	Kevin Hillgren (A) Tamra Underwood (A) Kate Burchenal (D) Steve Coyer (D) *Geoff Dreyer (A) *Sarah Smith Hymes (D)

(A) = Authority, (D) = District

**Backup committee member
(serves in the absence of a primary member)*



**UPPER EAGLE REGIONAL
WATER AUTHORITY**

GOVERNED BY:

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

The Town of Avon

M E M O R A N D U M

TO: Board of Directors
FROM: Brian Thompson, Government Affairs Supervisor
DATE: July 19, 2024
RE: Summary of Authority’s June 27, 2024, Board Meeting

The following is a summary of items discussed at the Authority’s June 27, 2024, board meeting. Directors present and acting were Secretary Kim Bell Williams, Treasurer Geoff Dreyer, Joanna Kerwin, and alternate director Eric Heil.

- 2023 Audit** Directors approved the FY 2023 Audited Financial Statement. Paul Backes (McMahan & Associates) said UERWA received an unmodified opinion with no recommendations or concerns.
- Policy Updates** Directors approved a new digital accessibility policy. Directors also sunsetted an outdated policy for use-based tap fee calculation and adopted an amended policy reaffirming tap fees for public facilities.
- Water Affordability** Siri Roman discussed ongoing efforts to raise awareness with lawmakers and regulatory agencies around issues affecting water affordability.
- Eagle Park Reservoir Company** Siri Roman said Eagle Park Reservoir Company operating assessments are lower in the FY25 budget due to decreased repair and maintenance costs.
- Molybdenum Standards** Siri Roman said the Colorado Water Quality Control Commission voted to relax the water supply standard for molybdenum by raising it from 210 ug/L to 530 ug/L.
- Bolts Lake Update** Jason Cowles reported on the project management and comprehensive permitting plans for Bolts Lake and provided updates on project funding.
- Water Shortage Response Plan** Page Weil (LRE Water) presented the Water Shortage Response Plan (WSRP) that provides an updated framework for responding to water supply shortages in the Eagle River Basin. District staff and consultants will continue to finalize the WSRP and present it for board approval at a future meeting.
- Avon Wastewater Treatment Facility Open House** Diane Johnson said a celebration of the \$57M Avon Wastewater Treatment Facility (AWWTF) Nutrient Upgrades project will be held from 10 to 11:30 a.m. on July 24. Community members are invited to attend; tours will be offered to the public.
- Consumer Confidence Reports** Diane Johnson distributed copies of the [2023 Consumer Confidence Report](#), which was mailed to all water customers prior to the June 30 regulatory deadline.
- Bolts Ditch Act** Kristin Moseley said the Bolts Ditch Act was included in a hearing before the U.S. Senate Subcommittee on Public Lands, Forests, and Mining of the Committee on Energy and Natural Resources. As hearings have now been held by both the House and Senate, the Bolts Ditch Act is eligible to be included in an omnibus bill.

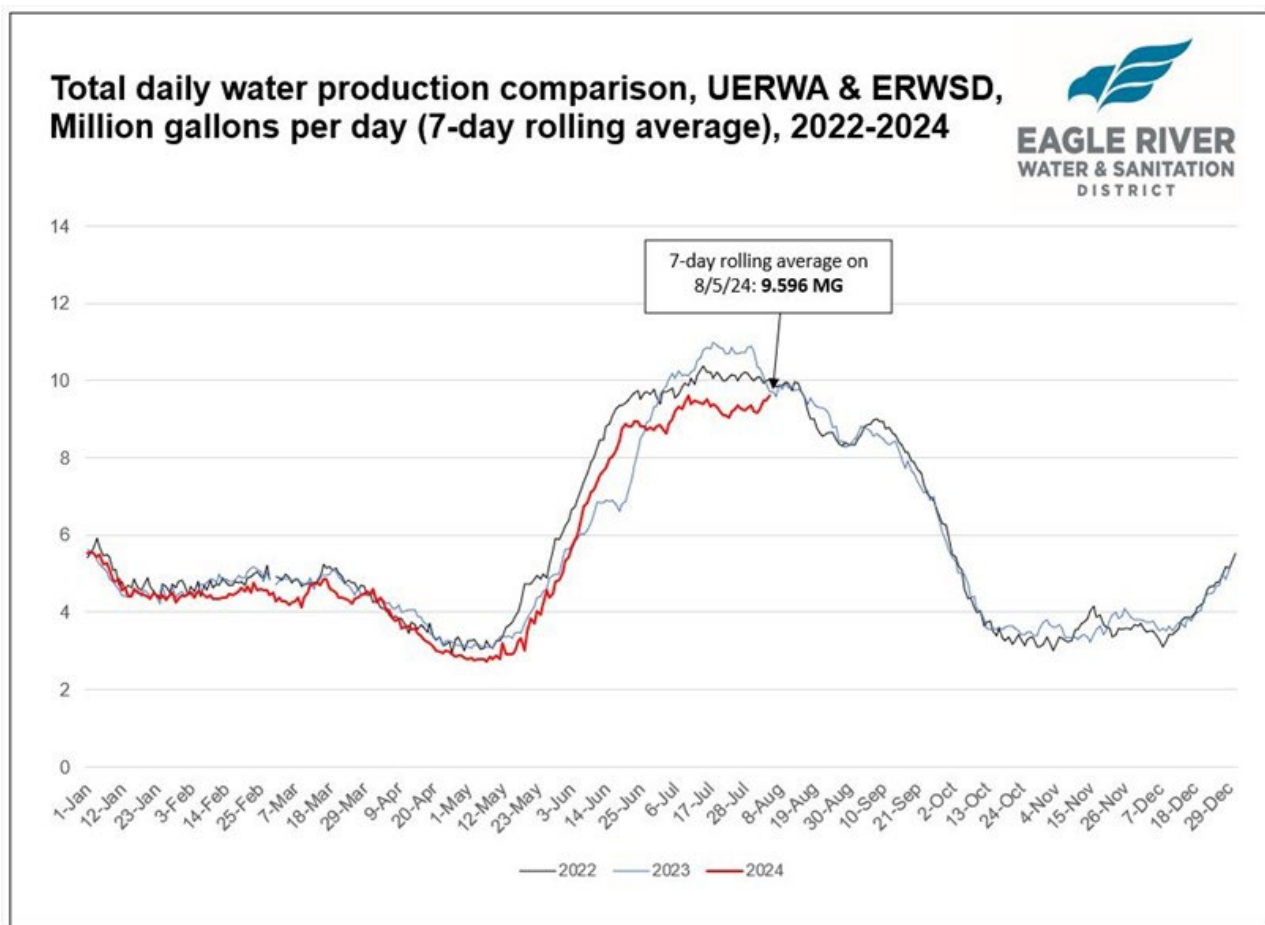


OPERATIONS MONTHLY REPORT AUGUST 2024

WATER

Kailey Rosema

The system-wide water production comparison was updated through Aug. 5.

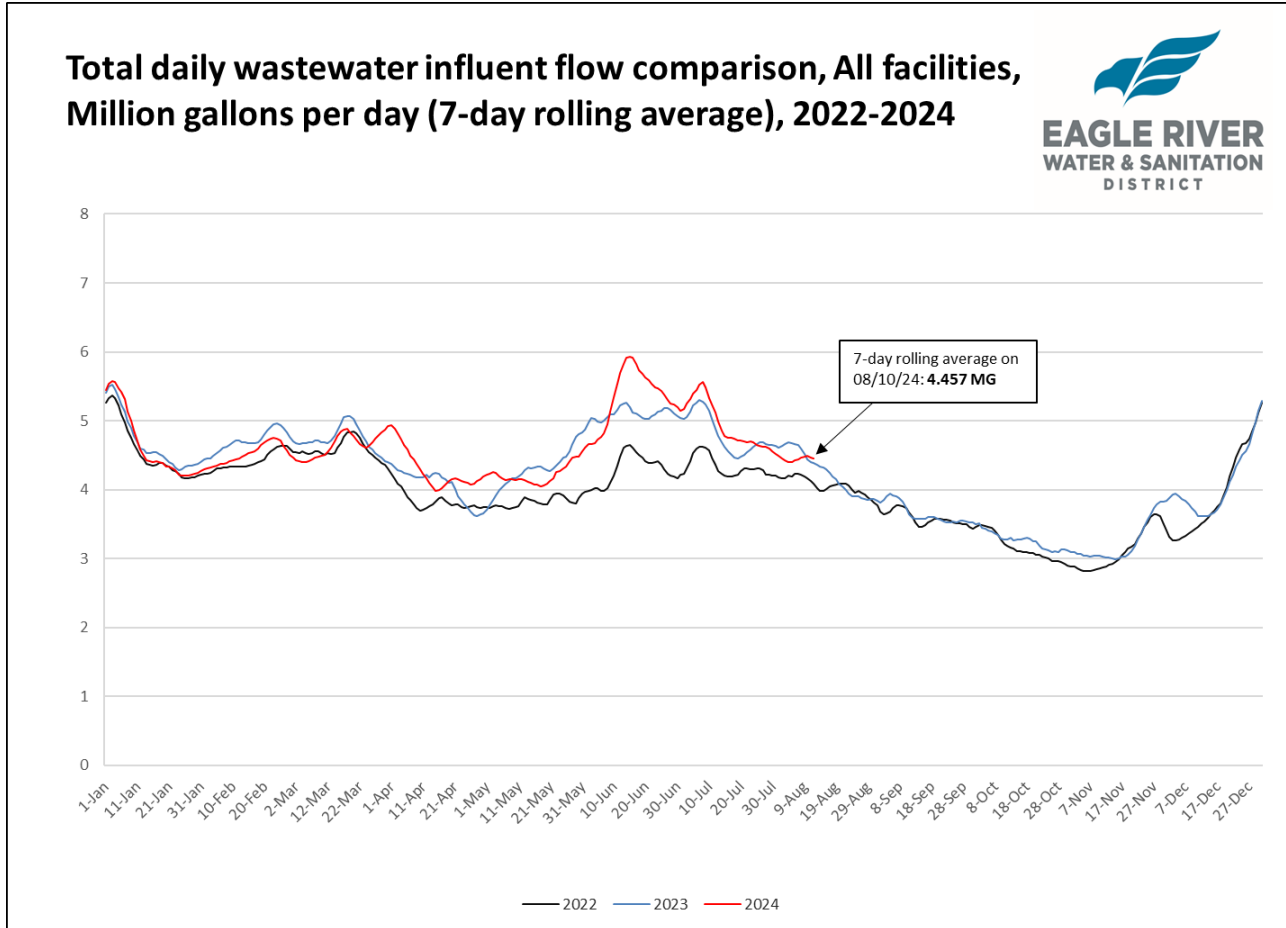


The exterior casing repair of Vail Well R7 is complete. The well was returned to service on Aug. 7 after extensive electrical, controls, and equipment testing.

WASTEWATER

Chris Giesting

The system-wide wastewater influent flow comparison was updated through Aug. 10.



FIELD OPERATIONS

Niko Nemcanin

On Aug. 9, Field Operations staff repaired a water service leak near Edwards Village Blvd. in Edwards. The source of the leak was a corroded service saddle tap. The damaged service tap was removed and replaced.



Edwards Village Drive water service repair (pipe damage left; corroded saddle middle, repair right)

On Aug. 12, Field Operations staff responded to a water main leak at the District’s Stillwater employee housing complex. Excavation and repairs are scheduled for Aug. 13.

UTILITY SERVICES

Shane Swartwout

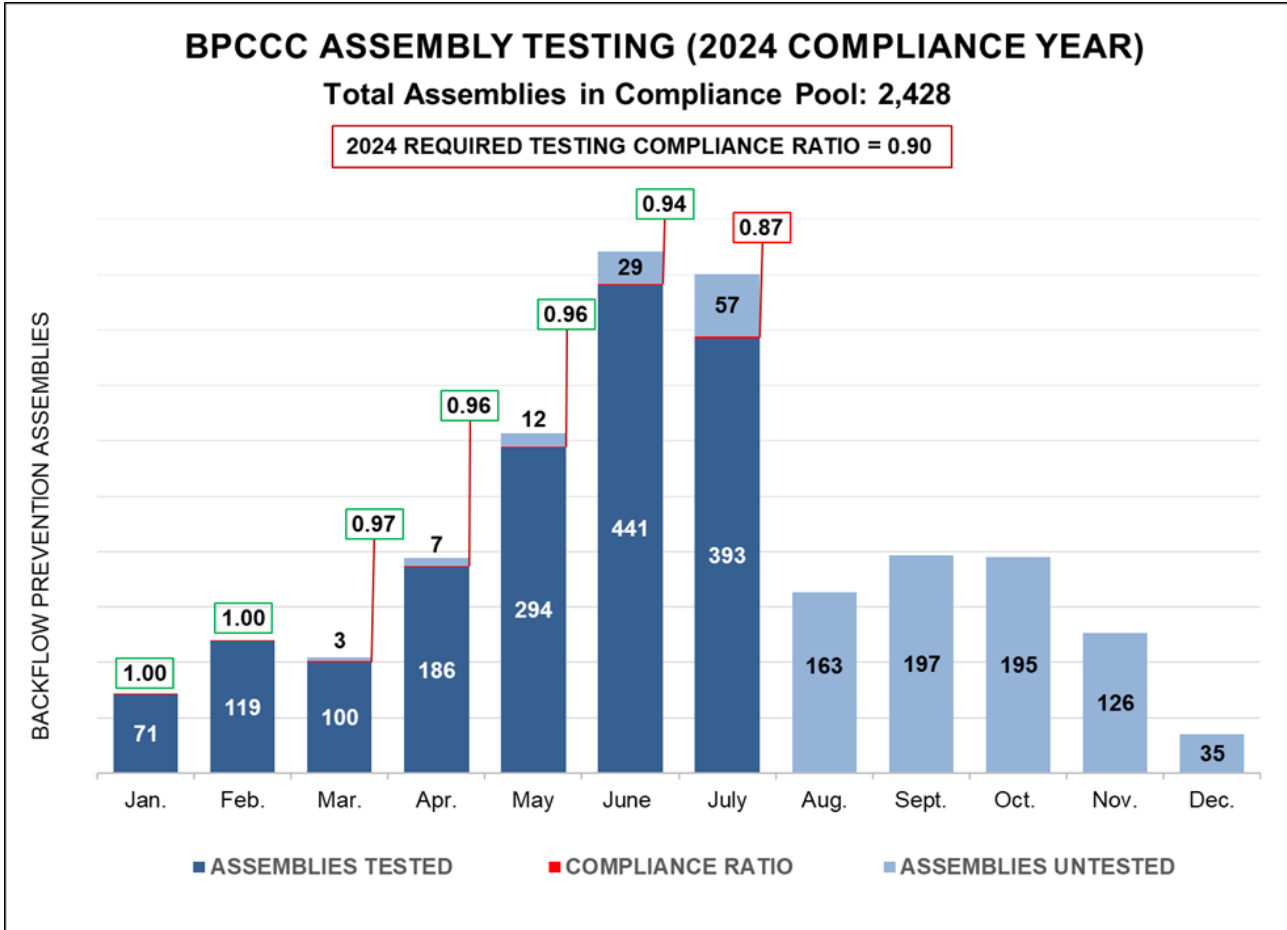
Meter Services

The Meter Services team is currently prioritizing the replacement of failed irrigation meters and is continuing AMI conversion in the Authority. An AMI progress report is provided below.

Report Date:	8/8/2024		
AMI SYSTEM STATUS	ERWSD	UERWA	TOTAL
(1) Total No. of Meters	3203	6902	10105
(2) No. of AMI Meters	3203	6510	9713
(3) System Percentage of AMI Meters	100%	94%	97%
Meters Remaining to Reach 100% AMI	0	392	392
<i>Advanced Metering Infrastructure (AMI) Status (Updated 8-8-2024)</i>			

BPCCC Program

665 of the 783 irrigation assemblies (85%) were successfully tested prior to the District’s Jul. 31 deadline. Any irrigation assemblies that remain untested after Sep. 1 will be assessed a non-refundable \$500 fine and will be tested by a District technician. A BPCCC program compliance update is provided below.



CAPITAL IMPROVEMENT PROGRAM (CIP)

Jeff Schneider

WATER PROJECTS

Cordillera West 1 Water Storage Tank Rehabilitation

Kevin Nelson

General Project Scope: The Cordillera West 1 Water Storage Tank is a 400,000-gallon, above-ground, steel tank. The project scope involves sandblasting and recoating the tank surfaces, installing a cathodic protection system, and various improvements to the vent, hatch, and overflow/drain systems.

Project Update: The project was advertised Jul. 19 and bids were opened Aug. 9. The project team is currently reviewing the bids and working to award the contract. The rehabilitation work is expected to begin in September.

North Frontage Road Watermain Improvements

Kevin Nelson

General Project Scope: This project involves construction of approximately 475 linear feet of 10-inch diameter water main from just east of the culvert crossing at Middle Creek, up the hillside to Mountain Bell Road, and to the top of the Middle Creek Village complex.

Project Update: The project is substantially complete. Final contract closeout activities have been initiated.

Arrowhead Transmission Main

Mark Mantua

General Project Scope: This project includes replacement of approximately 2,200 linear feet of 16-inch diameter water main from the base of Arrowhead Mountain to Arrowhead Tank 1. The existing pipe is badly corroded. The project also includes installation of a new valve control vault that will help optimize tank filling and balance tank levels in the low-pressure zone.

Project Update: The first tie-in to the existing distribution system was completed and approximately 500 linear feet of new HDPE pipe has been installed. On Aug. 1, an improperly located electrical distribution line was inadvertently damaged during excavation activities, which resulted in an approximate 1-2 hour electric outage for portions of the Arrowhead, Edwards, and Beaver Creek service areas. There were no injuries, but the project team held a debrief meeting immediately after the incident to review and improve safety and communication protocols prior to resuming work.

Avon Drinking Water Facility (ADWF) PLC Upgrades

Jenna Beirsto

General Project Scope: This project includes replacement of the programmable logic controllers (PLCs) at ADWF. Additionally, a new server room will be constructed within the facility. All existing programming and PLC logic will be reverse-engineered and updated to meet current District standards.

Project Update: The project team is continuing work to resolve a design-related error pertaining to an undersized HVAC cooling system for the new server room. Work is underway to install a temporary cooling solution. Engineering plans for the re-designed permanent HVAC system will be issued the week of Aug. 12.

Wildridge BPS, PRV, and Tank Improvements

Carter Keller

General Project Scope: This project addresses high priority recommendations from the 2020 Distribution System Master Plan and involves improvements to the pumping, storage, and pressure regulating facilities in the Wildridge service area. The scope includes mechanical, electrical, structural, architectural, and electrical improvements at multiple sites, including installation of an on-site emergency generator at Wildridge Booster Pump Station (BPS) 1.

Project Update: The project team is currently installing two bypass pump connections at Wildridge BPS 2 and is removing vegetation around the building and water storage tank. The team is also continuing to work with the Town of Avon to procure Right of Way permits.



Vegetation removal at Wildridge BPS 2/Tank 1 site

WASTEWATER PROJECTS

Vail Wastewater Treatment Facility (VWW) Master Plan Improvements

Mark Mantua

General Project Scope: A condition assessment of the VWW was conducted as part of the 2017 wastewater masterplan. The assessment identified several critical upgrades that are required to keep the facility in reliable and operable condition. The scope of this project includes installation of a new, larger diesel generator, 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: Major invasive and demolition work within the facility has been temporarily halted until asbestos mitigation work can be completed. The team is currently working to procure a qualified mitigation subcontractor.

Edwards Wastewater Treatment Facility (EWW) Nutrient UpgradeJenna Beairsto
Madeleine Harris

General Project Scope: The EWW must be upgraded to meet Regulation 85 nutrient limits for final total inorganic nitrogen (TIN) and total phosphorus (TP). Expected improvements include renovation of the preliminary treatment equipment, primary bypass improvements, aeration basin modifications and expansion, blower replacements, chemical feed and storage improvements, return and waste activated sludge (RAS/WAS) pump replacements, centrate storage improvements, and HVAC and electrical upgrades. This project will also resolve existing hydraulic process constraints and address condition assessment needs identified in the Wastewater Master Plan. The project must be completed by the CDPHE compliance deadline of Jan 1, 2029.

Project Update: The geotechnical site investigation was completed the week of Jul. 15. The project team met with Eagle County planning and engineering staff on Jul. 25 to review the permitting requirements for the project. A formal kickoff meeting is scheduled with the Construction Manager-at-Risk (CMAR) contractor on Aug. 13. The project team is also currently reviewing and revising the Preliminary Design Report (PDR), which is a foundational requirement of the CDPHE permit application package.

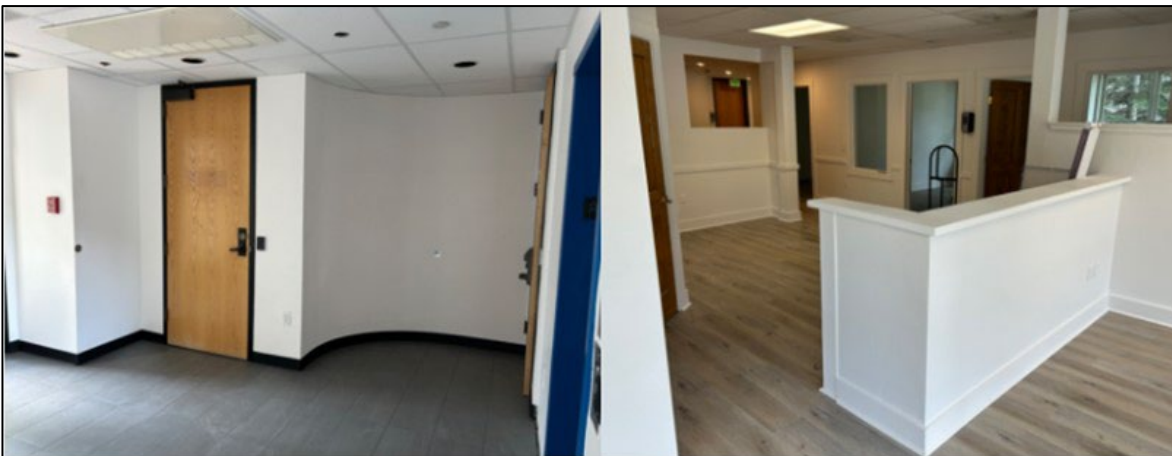
ADMINISTRATION PROJECTS

Eagle Vail Office (EVO) Improvements

Dan Duerr

General Project Scope: The project scope includes improvements to the roof, office space finishes, IT server room, and various mechanical, electrical, and plumbing (MEP) components, as well as the design and construction of a large conference room.

Project Update: The flooring installation work in the OTS office and entry vestibule areas is complete. The final permit design plans are under review with the HOA. The IT data center will be completed upon installation of Comcast's communications infrastructure. The operation teams currently stationed at the Traer Creek office building will begin moving into EVO in September.



Eagle Vail Office (EVO) floor installation (entry vestibule left, OTS office flooring right)



MEMORANDUM

TO: District and Authority Boards of Directors
FROM: Jason Cowles, P.E. and Justin Hildreth, P.E.
DATE: August 13, 2024
RE: Engineering & Water Resources Report

Development Report

An updated copy of the Development Report is attached. We are working on a water service agreement with Eagle County to provide domestic water for the Eagle County Housing and Government Services Building project at Freedom Park in Edwards. The water service agreement documents the allocation of 1.98467 acre feet from the water conveyed in the Eagle Park Reservoir Stock agreement to meet the water dedication requirements for the affordable housing component of the project and 1.28477 acre feet of the 10 acre feet reserved by the County for Eagle County projects to meet the water dedication requirements for the Government Services Building. Irrigation will be supplied by the raw water system at Freedom Park and is not included in the water service agreement. The County has also indicated that they wish to use the water conveyed in the Eagle Park Reservoir Stock Agreement to meet the water dedication requirements for a third apartment building that is planned for the Colorado Mountain College Campus. We estimate the dedication requirement at approximately 3.17 acre feet. The Authority Unallocated In-Basin Supply tracking spreadsheet has been updated to reflect these dedications.

Eagle County Land Use Regulation Reform Project

The third meeting of the Eagle County Land Use Regulation (ECLUR) Reform Project's Advisory Committee was held at the County Building on August 7. At the meeting the Advisory Committee continued its review of Module 1 of the proposed ECLUR's. This module consists of proposed zoning districts, land use tables that define which zone districts each land use is allowed in, and definitions of the land uses. During the meeting, the committee was asked to provide the project team with consensus for direction on how they should address several issues in the new code such as the proposed elimination of 2-acre and 5-acre residential zoning, proposed additions to the land use tables to allow for outdoor recreational land uses, such as campgrounds, guest ranches, and places of assembly, approaches to permitting seasonal and temporary uses, a proposal to become an accessory dwelling unit (ADU) supportive jurisdiction, and approaches to sign standards. If the County becomes an ADU supportive jurisdiction it will make the County eligible for grant funding from the Department of Local Affairs to support the development of ADUs. It is my understanding that new ADUs would still be subject to the ability to serve process. The ECLUR Reform Project team will synthesize the discussion and will incorporate the direction received into the drafting of the proposed code. The next meeting of the Advisory Committee is scheduled for October 16. During the meeting,

the timeline for the process was also discussed. The County plans to add additional meetings to the schedule to allow more time to work through the new code with the Advisory Committee.

Water Shortage Response Plan

On August 2nd, we convened a Stakeholder Group to discuss the key elements of the Water Shortage Response Plan (WSRP). The discussion focused on major components, including drought indicators, response measures, and enforcement actions, such as fines and drought surcharges for high-usage customers. We will be presenting the WSRP at the Town of Vail's "Lunch with Locals" event on August 28, held at the Grand View Community Space in Lionshead. This event provides an excellent opportunity to inform the general public about the plan. The project plan is currently being drafted and will be presented to the Boards for adoption later this year.

Attachments:

1. Authority Unallocated In-Basin Supply, August 2024
2. ERWSD and UERWA New Development Reports, August 2024

Water Resources Report

Justin Hildreth

Drought Conditions

On July 9, 2024, the U.S. Drought Monitor prepared by the National Drought Mitigation Center (NDMC) classified Eagle County as not experiencing drought conditions. The NDMC degraded the drought classification for the northern front range from abnormally dry to severe and extreme drought and the northwest corner of the state and the upper Colorado River basin above Eagle County to abnormally dry drought conditions.

Figure 1: U.S. Drought Monitor – Colorado. August 6, 2024 (National Drought Mitigation Center)

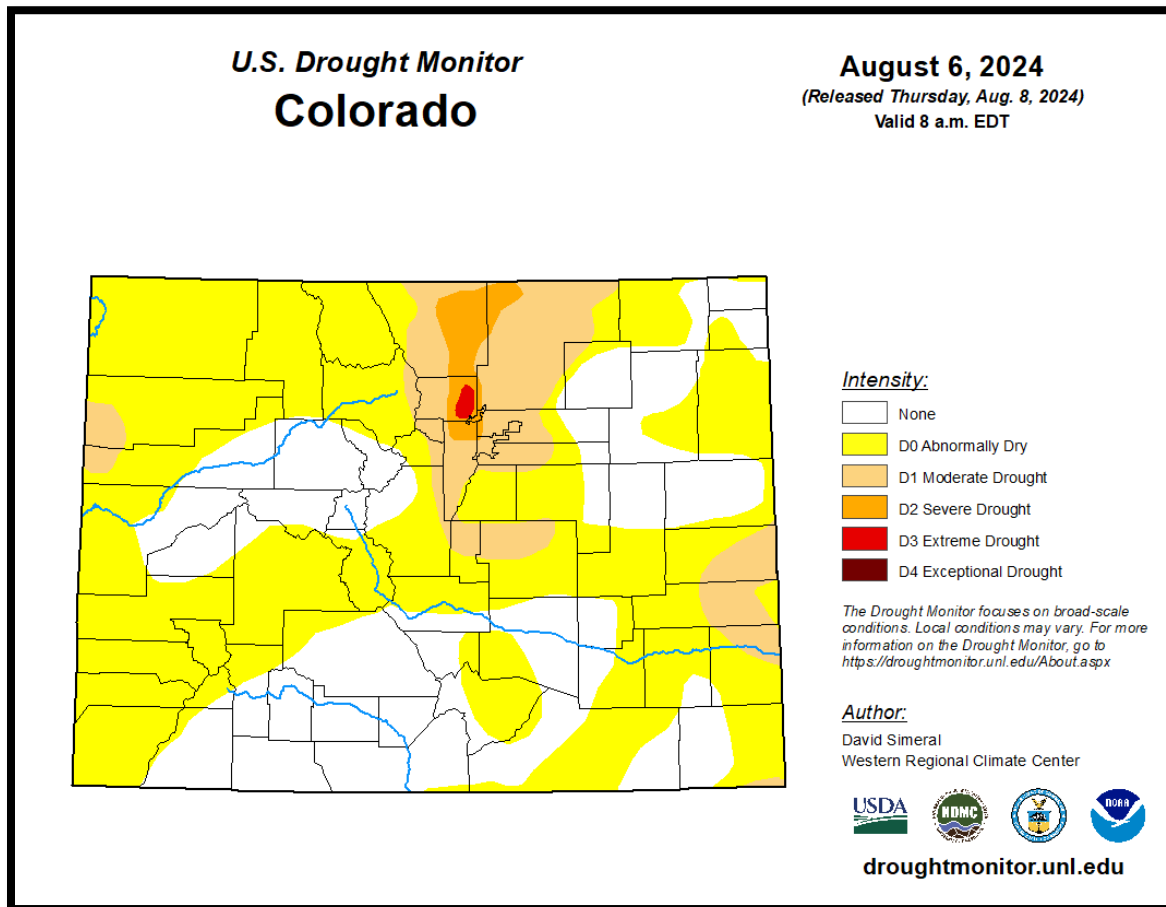
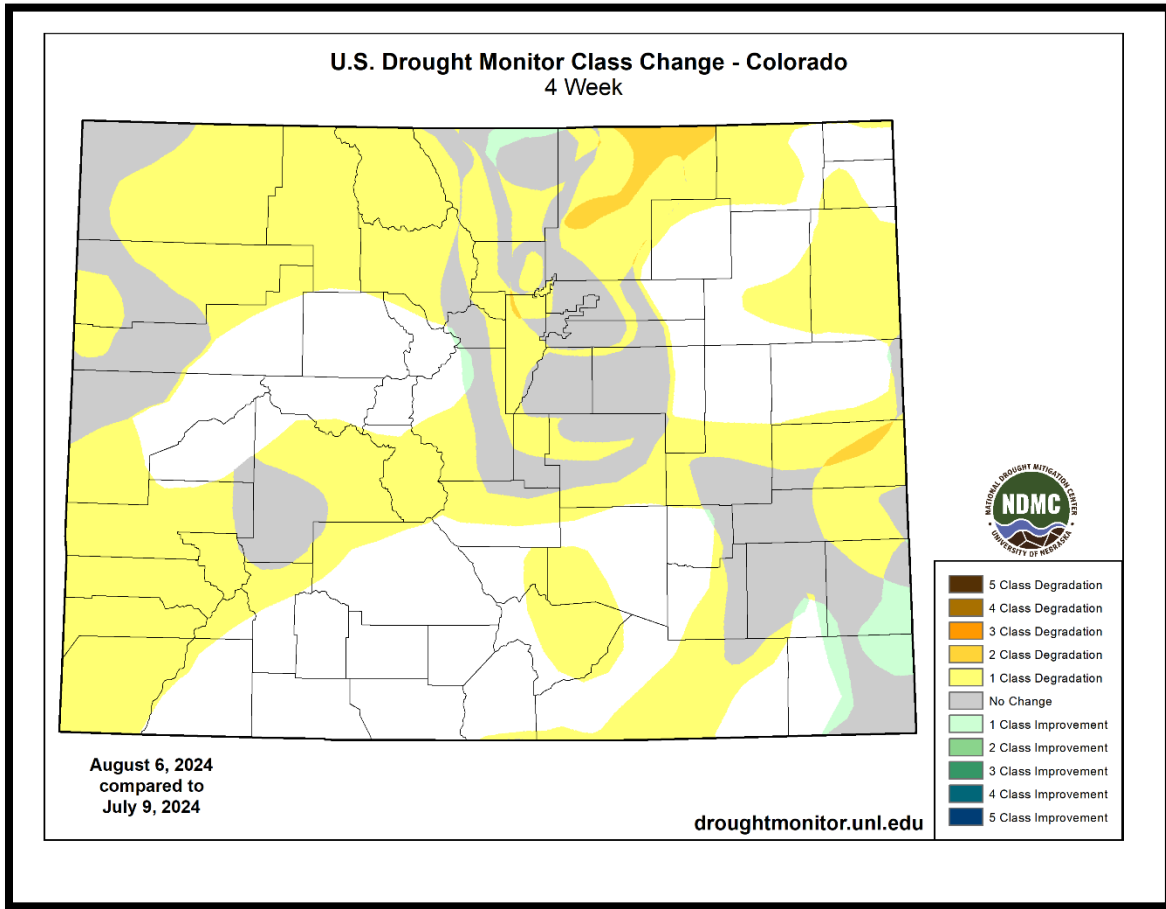


Figure 2: U.S. Drought Monitor – Colorado. 4-Week Class Change (National Drought Mitigation Center)



Temperature and Precipitation Forecasts

Figures 3 and 4 show the current National Weather Service 8-to-14-day temperature and precipitation outlooks. The 2-week outlook for Colorado indicates that the temperatures will be above normal, and precipitation is leaning near normal to above normal. The seasonal 3-month temperature and precipitation outlooks, which are less accurate, indicate temperatures are likely above normal and precipitation equally chanced above or below normal.

Figure 3: 8-14 Day Temperature Outlook – August 11, 2024 (NOAA/National Weather Service Climate Prediction Center)

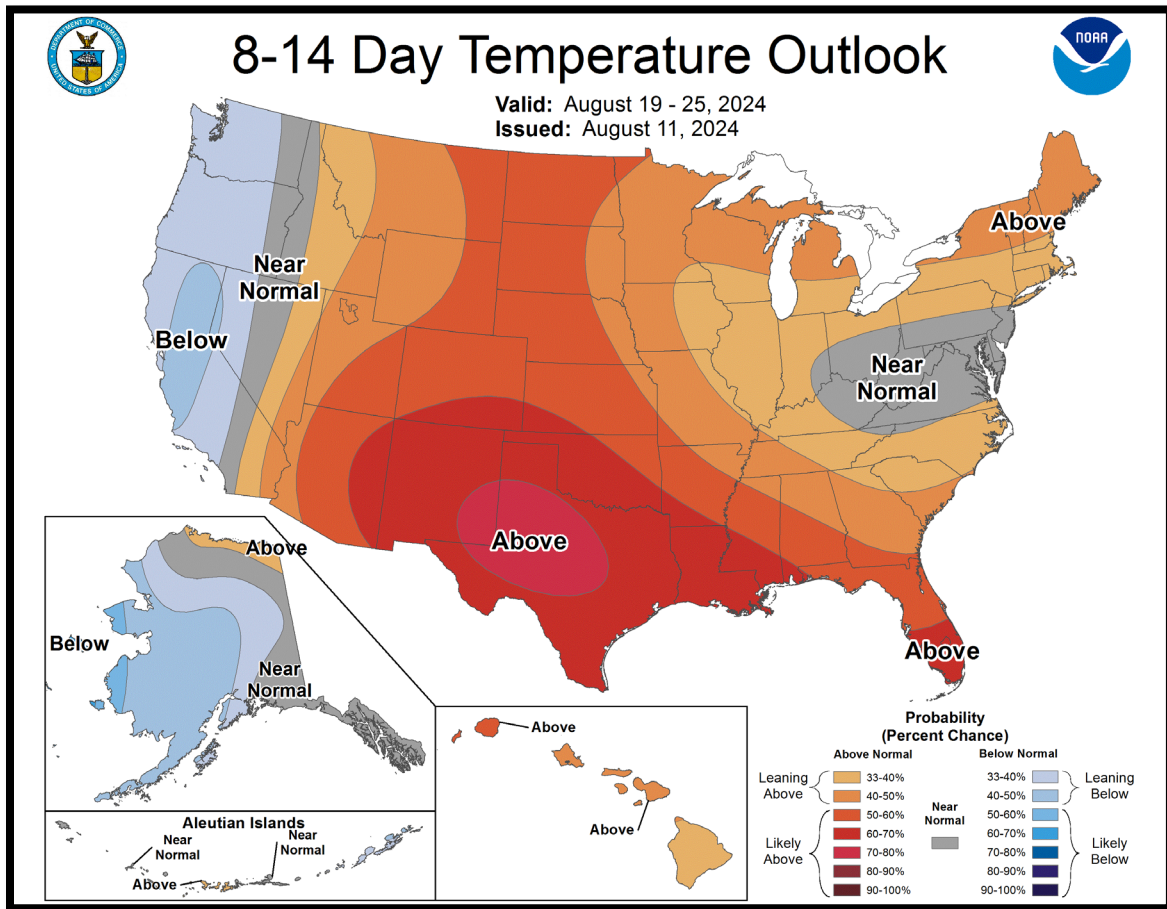
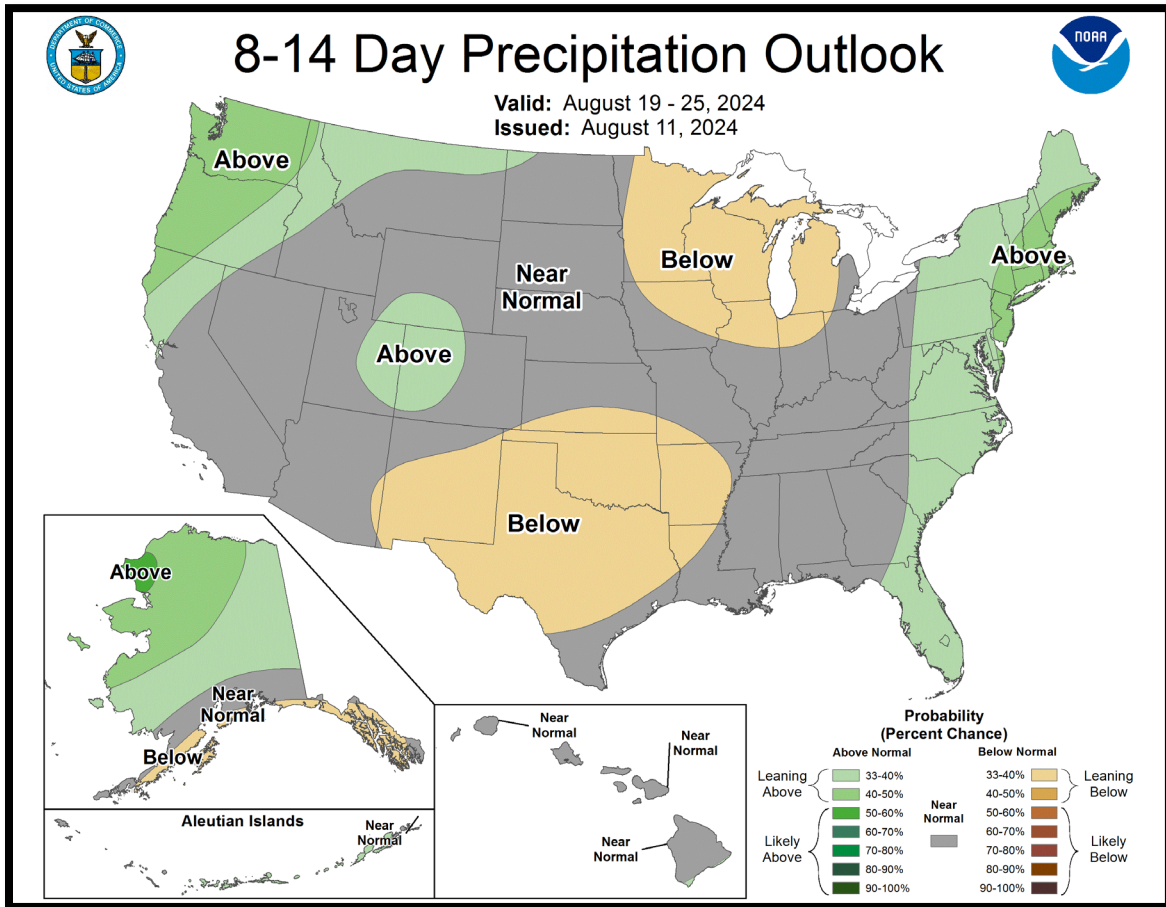


Figure 4: 8-14 Day Precipitation Outlook – August 11, 2024 (NOAA/National Weather Service Climate Prediction Center)



Precipitation Conditions

Figures 5 and 6 display the cumulative precipitation for the 2024 water year at the Vail Mountain and Fremont Pass SNOTEL sites as of August 12, 2024. The Vail site’s accumulated precipitation is 29.5”, 94% of the 30-year median for this date. Fremont Pass’s accumulated precipitation is 29.6”, 116% of the 30-year medial peak for this date.

Figure 5: Accumulated Precipitation at Vail Mountain SNOTEL station, August 12, 2024 (USDA)

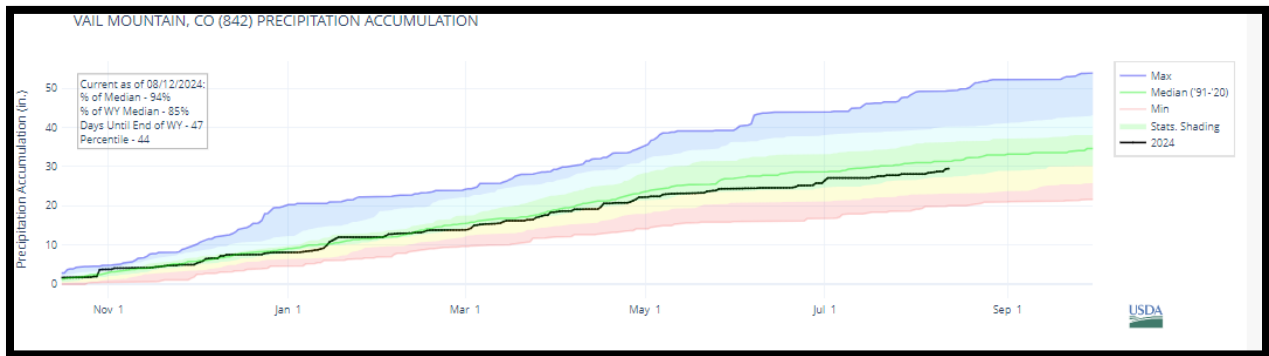
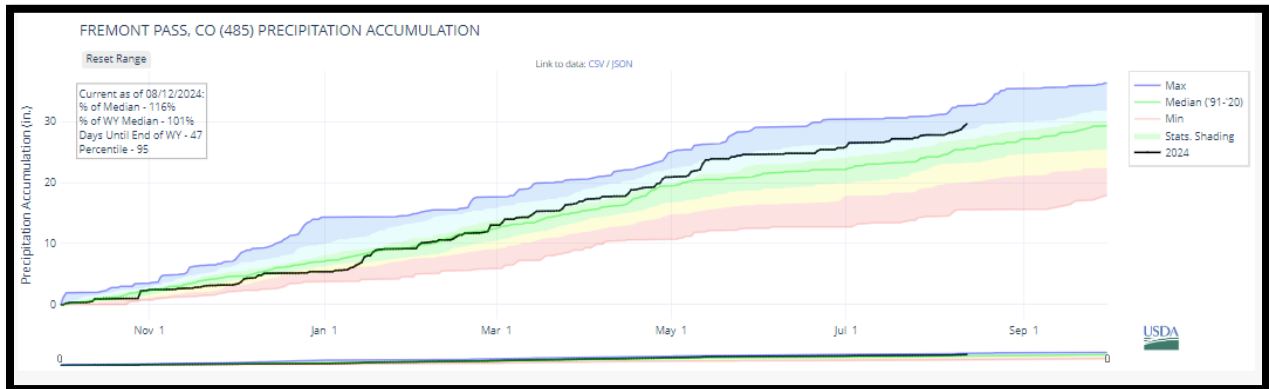


Figure 6: Accumulated Precipitation at Fremont Pass SNOTEL station, August 12, 2024 (USDA)



Streamflow

Figures 7, 8, and 9 include the Colorado Basin River Basin Forecast Center (CBRFC) hydrographs for Gore Creek above Red Sandstone Creek, Eagle River at Avon, and Colorado River at Dotsero respectively. The recent monsoon rains are positively impacting the streamflows. The baseline flows are below the median and the rains boost the runoff to well above the median for a short period.

Figure 7: Forecast Hydrograph, Gore Creek above Confluence with Red Sandstone Creek (CBRFC)

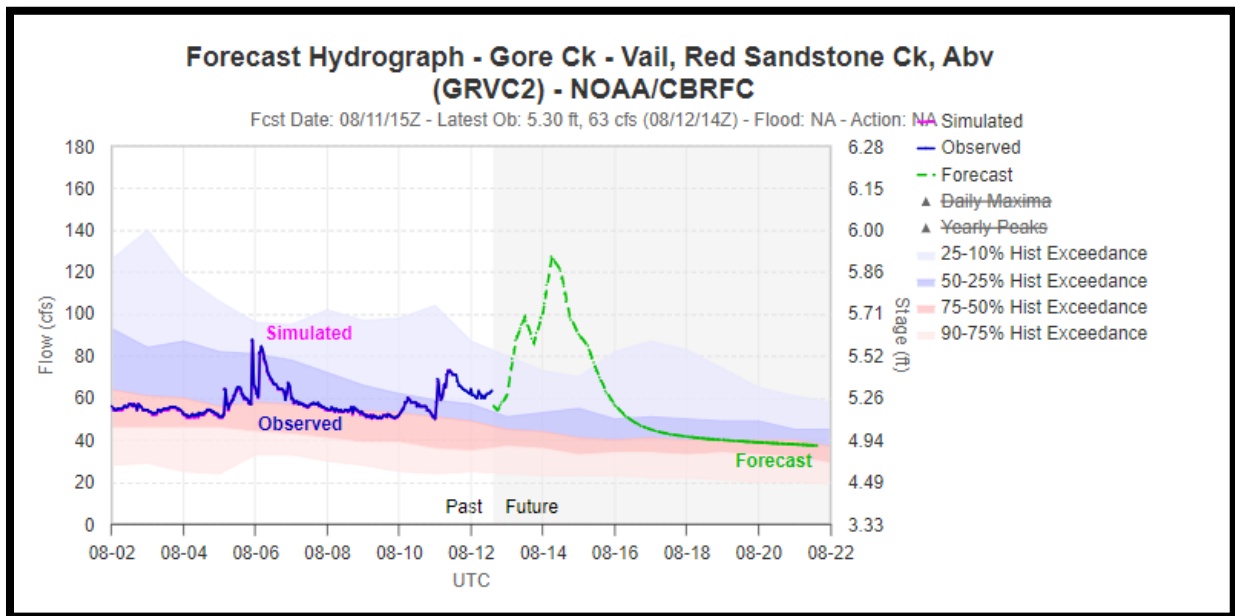


Figure 8: Forecast Hydrograph, Eagle River at Avon (CBRFC)

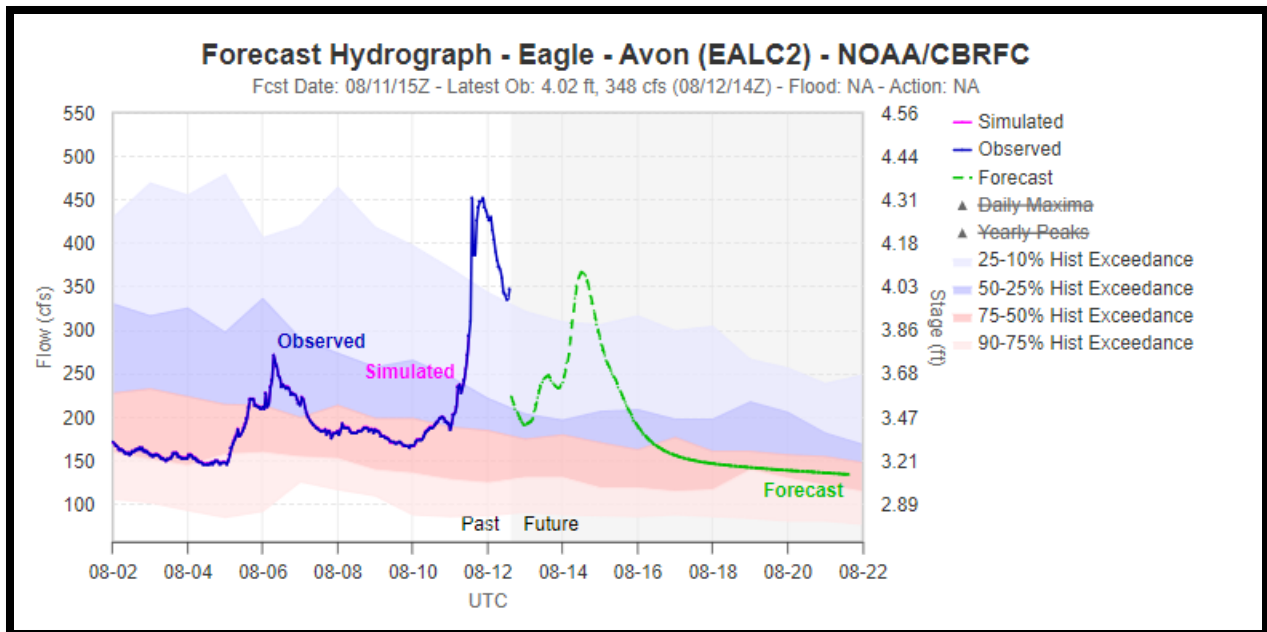
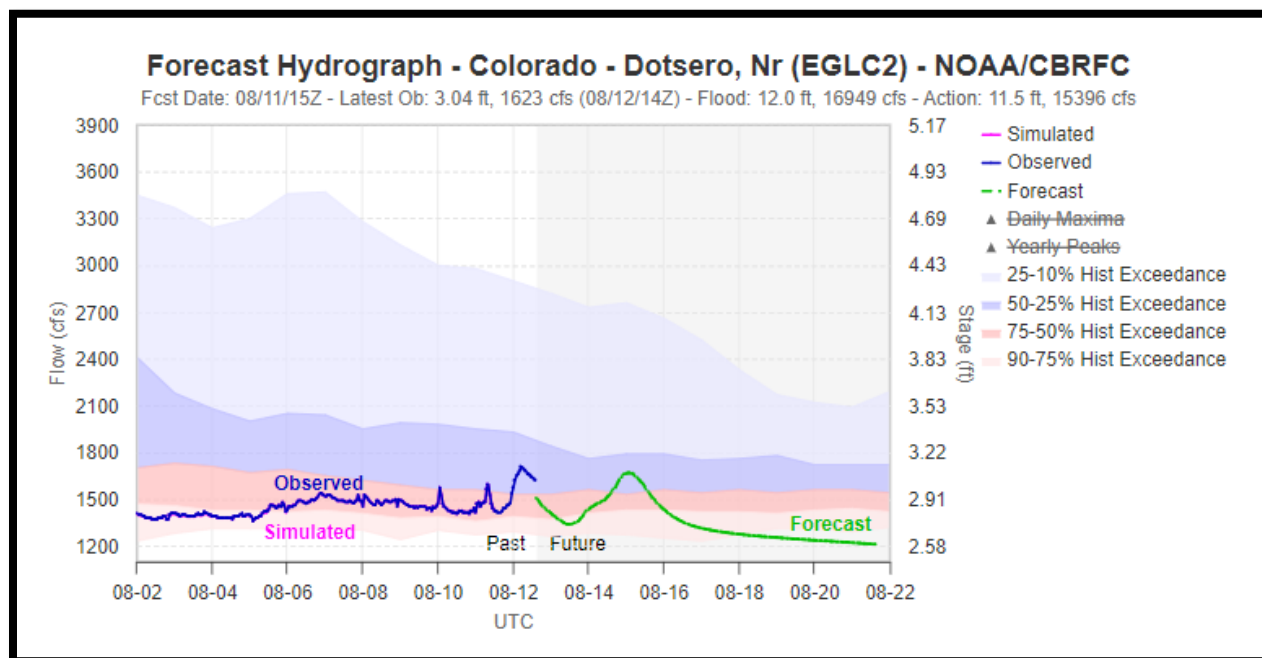


Figure 9: Forecast Hydrograph, Colorado River at Dotsero (CBRFC)



Reservoir Volumes

Table 1 summarizes the reservoir storage accounts and indicates that the reservoir storage accounts are nearly full. The District and Authority accounts in Eagle Park will be filled on September 1, 2024 when inflow from runoff is dispersed from the conservation storage pool to shareholder accounts in accordance with the adopted accounting procedures.

Table 1: District and Authority storage accounts for August 1, 2024 (Helton and Williamsen).

August 1, 2024 Volumes in Storage (acre-feet) and Percentages of Full:

<u>Reservoir</u>	<u>ERWSD</u>		<u>UERWA</u>		<u>Total</u>	
Green Mountain	934	100%	548	100%	1482	100%
Black Lakes	425	100%	300	100%	425	100%
Eagle Park	405.54	99%	731.8	97%	1137.34	98%
Homestake Res	250	100%	256.50	100%	506.50	100%
Wolford Mtn	500	100%	710.80	100%	1210.80	100%

*Homestake Year is currently set as July 1 to June 30.

La Nina ENSO Conditions

The equatorial sea surface temperatures indicate a neutral El Niño Southern Oscillation (ENSO) for the next several months, with La Niña favored to develop during August – October and persist into the Northern Hemisphere winter (Figure 10). La Niña occurs when the eastern Pacific Ocean temperatures are cooler. Last winter, the ENSO was in an El Niño condition as a result of the eastern Pacific Ocean temperatures being warmer than typical.

During moderate to strong La Niñas, northwest Colorado may see above-normal precipitation from mid-winter to mid-spring (Figure 11). The north-central and northwest mountains are usually the most consistent for snowfall, with places like Steamboat Springs and Winter Park seeing a lot of snow. Southern and eastern Colorado can be warm and dry, while the central and western regions are usually less predictable. However, it's difficult to forecast what will happen in Colorado during a La Niña winter because of the state's diverse topography and distance from the oceans.

Figure 10: ENSO Probabilities for the 2024-2025 Winter Season

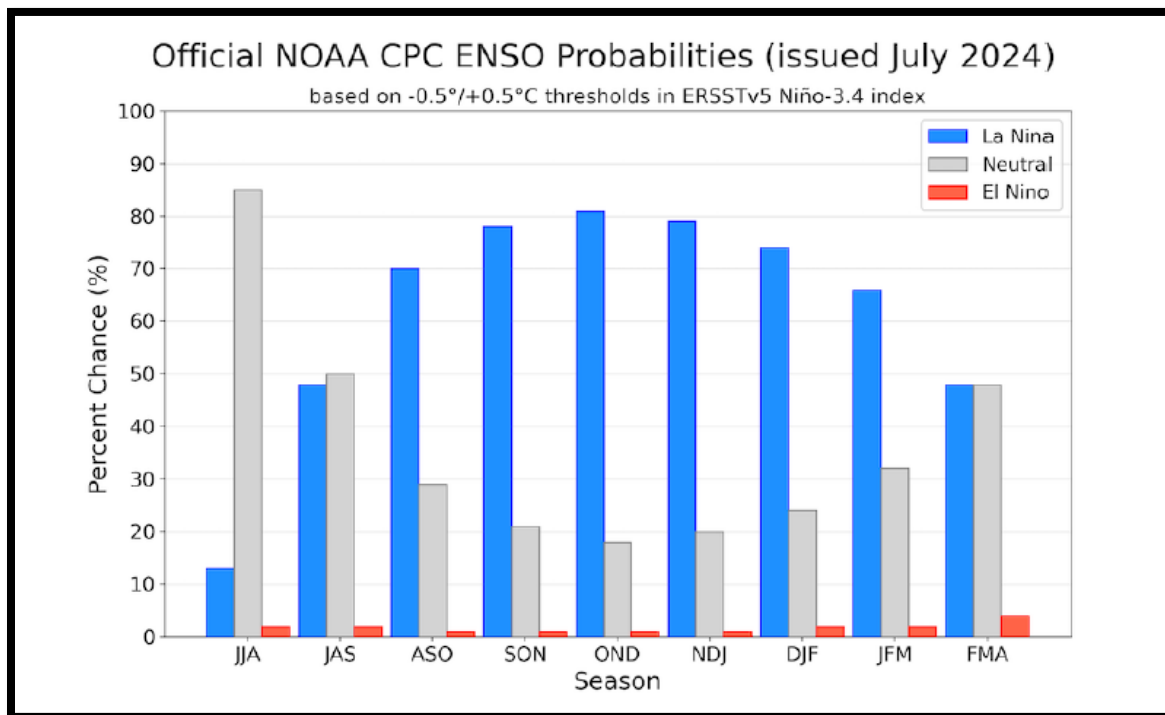
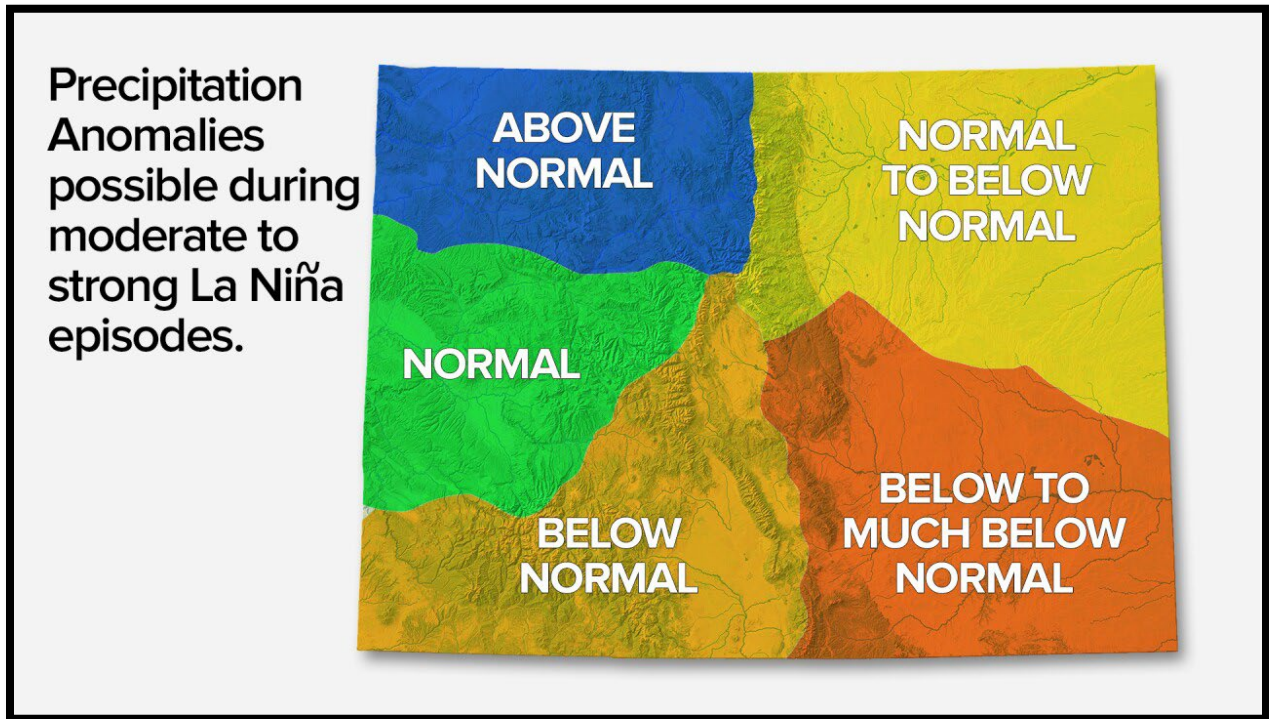


Figure 11: Precipitation Anomalies during moderate to strong La Nina episode



Authority Unallocated In-Basin Storage Supply

Updated: 08/13/2024 by JEC

	In-basin Reservoir Storage, acft Affordable Housing Reserve ²	In-basin Reservoir Storage, acft Unrestricted ³
Available Unallocated In-Basin Storage¹	87.40	75.00
Dedication Requirements for New Projects		
State Land Board (Avon)	16.00	--
Eagle-Vail Presbyterian Church Employee Housing (Eagle County)	--	0.17
Eagle County Freedom Park Project (Berry Creek)	3.27	--
Cairns Townhomes (Edwards)	--	1.08
CMC Student Housing Building 3 (Edwards)	3.17	--
Total Pending Dedications	22.44	1.25
Remaining Unallocated In-Basin Storage	64.96	73.75

Notes:

1) Available Unallocated In-Basin Storage based on modeling for February 2023 Water Rights Report using Buildout Demands with Conservation and 95th Percentile Dry Year Hydrology under Median Climate Change Scenario. Pending developments that were included in the buildout demands include the West End PUD, the Edwards River Park PUD, the Margaux PUD, and the Warner Building Redevelopment.

2) Affordable Housing Reserve In-basin Reservoir Storage is Eagle Park water transferred to UERWA by Eagle County for water rights dedication requirements of housing projects subject to the terms of the Eagle Park Reservoir Stock Agreement between the Authority and Eagle County. Projects utilizing this water are subject to approval by the Authority and Eagle County.

3) Unrestricted In-basin Reservoir Storage includes 25 acft option purchased from ERWSD and 50 acft lease from the Colorado River Water Conservation District.

4) Water dedication requirements and sources are based on best available information and are subject to change.



UERWA New Development Report, August 2024

Project Location	Type of Use	Water Source	SFEs Proposed	Augmentation Requirement (acre-feet)	Application Initiation Date	Development Approval Process Step:	Construction Approval Process Step:	
CMC Student Housing Building 3	Residential	Eagle County Agreement	36	3.17	May 7, 2024	1. Connection Application	1. Plan Review	
State Land Board Parcels Unincorporated ECO	Mixed	Eagle County Agreement	700 Units + 60,000 SF Com	16	August 7, 2023	2. Water Analysis	0. Conceptual	
Eagle River Presbyterian Church Housing Unincorporated ECO	Residential	Unallocated	2	0.17	June 20, 2023	3. Cond. Capacity Expires October 24, 2024	1. Plan Review	
West Riverview (formerly Cairns) Edwards	Residential	Unallocated	10	1.18	June 7, 2023	3. Cond. Capacity Expires May 13, 2025	0. Conceptual	
Eagle County - Freedom Park Project Edwards	Mixed	Eagle County Agreement	20 + Com	3.27	May 22, 2023	4. Water Rights Allocation & Service Agreement	1. Plan Approval	
North Road Project Traer Creek	Access Road	N/A	N/A	N/A	May 10, 2023	N/A	3. Under Construction	
Margaux PUD Edwards	Residential	Unallocated	32	3.56	October 11, 2021	3. Cond. Capacity Expires October 9, 2024	0. Conceptual	
Edwards River Park PUD Edwards	Mixed	Unallocated	440	60.85	December 2, 2016	3. Cond. Capacity Expires February 2025	1. Plan Review	
Projects not requiring or that have completed Water Rights Dedication								
Prime West Apartments	Residential	Traer Creek Water Service Agreement	242		May 13, 2024	5. Ability to Serve Letter	1. Plan Review	
130 W BC BLVD Hotel Avon	Residential	Avon SFE Guarantee	80		March 20, 2024	N/A	0. Conceptual	
Gracious Savior Lutheran Church and Eagle County School District Housing Project	Residential	Edwards Metro District Water Rights	6		November 22, 2023	5. Ability to Serve Letter	N/A	
Vail Valley Foundation Childcare Center Traer Creek	Mixed	Traer Creek Water Service Agreement	TBD		October 13, 2023	1. Connection Application	0. Conceptual	
Slopeside Housing Avon	Residential	Avon SFE Guarantee	TBD		October 5, 2023	1. Connection Application	0. Conceptual	
140 W BC BLVD Hotel Avon	Residential	Avon SFE Guarantee	79		May 16, 2023	N/A	1. Plan Review	
Tract Y- Metcalf Road Avon	Residential	Avon SFE Guarantee	53		February 16, 2023	5. Ability to Serve Letter	3. Under Construction	
McGrady Acres Avon	Residential	Avon SFE Guarantee	24		August 5, 2021	5. Ability to Serve Letter	3. Under Construction	
Warner Building 2 Conversion Eagle-Vail	Residential	Unallocated	13.6	0.07	March 16, 2018	5. Ability to Serve Letter	N/A	
West End PUD Amendment Edwards	Residential	Unallocated	275	28.7	February 27, 2019	4. Water Rights Allocation & Service Agreement	1. Plan Review	
Projects that have recieved Construction Acceptance								
CMC Student Housing , ECO School District Housing, Frontgate, Maverik Gas Station, NorthStar PUD, Piedmont Apartments, Avon Dual Brand Hotel Traer Creek - Tract J, Fox Hollow PUD								
Development Approval Process Steps:	1. Connection Application			2. Water Demand Worksheet Analysis	3. Conditional Capacity to Serve Letter	4. Water Rights Allocation & Service Agreement		5. Ability to Serve Letter
Infrastructure Acceptance Process Steps:	0. Conceptual			1. Plan Review	2. Plan Approval	3. Under Construction		4. Construction Acceptance



ERWSD New Development Report, August 2024

Project Location	Type of Use	SFEs Proposed	Augmentation Requirement (acre-feet)	Application Initiation Date	Development Approval Process Step:	Construction Approval Process Step:
Cornerstone Project Vail	Mixed	33 + Com	0.66	July 11, 2024	1. Connection Application	0. Conceptual
Timber Ridge II Redevelopment Vail	Residential	294 ~ (195.4 net increase)	2.2	July 25, 2023	3. Conditional Capacity to Serve Letter	2. Plan Approval
Maloit Park ECO School District Housing Minturn	Residential	138 (122 net increase)	N/A	July 21, 2023	N/A	1. Plan Review
Midtown Village PUD Minturn	Mixed	42 + Com	N/A	October 13, 2022	N/A	1. Plan Review
North Minturn PUD Minturn	Residential	36	N/A	October 10, 2022	N/A	3. Under Construction
Middle Creek Lot 4,5 Vail	Mixed	268	4.2	June 28, 2022	3. Conditional Capacity to Serve Letter	1. Plan Review
Wolcott PUD Wolcott	Mixed	360 + Com	TBD	May 11, 2022	0. Conceptual	0. Conceptual
Belden Place (1200 Block Main St) Minturn	Residential	39	N/A	December 23, 2020	N/A	2. Plan Approval
Highline (Double Tree Expansion) Vail	Residential	43.65	0.79	July 11, 2019	5. Ability to Serve Letter	2. Plan Approval
500 E Lionshead Circle - Legacy Vail	Residential	20	0.29	August 29, 2018	4. Water Rights Allocation & Service Agreement	3. Under Construction
Alura (Miradoro) Vail	Residential	10	0.405	May 29, 2018	4. Water Rights Allocation & Service Agreement	3. Under Construction
534 E Lionshead Circle - Elevation Vail	Residential	12	0.31	May 14, 2018	1. Connection Application	0. Conceptual
Projects that have recieved Construction Acceptance						
VVMC Phase II-East Wing, Vail Marriot Residence Inn, Residences at Main Vail						
Development Approval Process Steps:	1. Connection Application	2. Water Demand Worksheet Analysis	3. Conditional Capacity to Serve Letter	4. Water Rights Allocation & Service Agreement	5. Ability to Serve Letter	
Infrastructure Acceptance Process Steps:	0. Conceptual	1. Plan Review	2. Plan Approval	3. Under Construction	4. Final Acceptance	



MEMORANDUM

TO: Boards of Directors
FROM: Diane Johnson, Communications & Public Affairs Manager
DATE: August 22, 2024
RE: Communications and Public Affairs Report

Vail Farmers' Market

Warm weather and lots of people at the market make for a busy hydration station. A cross-departmental team staffs our booth every Sunday from June 16 to Oct. 6. It's a great opportunity to connect with our customers – whether long time locals or first-time visitors. We'll also provide the hydration station for the Sept. 10 Vail Social, hosted by the Town of Vail.



Water Shortage Response Plan

As part of the public engagement and stakeholder involvement for the District's Water Shortage Response Plan (that will be submitted to the Colorado Water Conservation Board), Justin Hildreth and project consultant Page Weil will discuss the plan at the Town of Vail "Lunch with the Locals" series. The presentation is from noon to 1 p.m. on Aug. 28 at The Grand View in Lionshead.

District in the news:

1. Aug. 12, Vail Daily: [Monsoon rains have helped tamp down Eagle County's fire danger](#)
2. Jul. 31, Vail Daily: [\\$57 million upgrade to Avon's wastewater treatment facility ushers in a new era for water district](#)
3. Jul. 28, Vail Daily: [Water district, authority decline to participate in another PFAS settlement](#)
4. Jul. 25, Vail Daily: [Could Vail be a model for geothermal energy? Colorado's governor thinks so](#)

Attachments (or hyperlinks):

1. Jul. 29, Colorado Sun: [Colorado water officials dream big, team up after feds drop \\$450 million for water projects](#)
2. Jul. 30, LA Times: [The American West's last quarter-century ranks as the driest in 1,200 years, research shows](#)

COMMENTARY	A6
TOWN TALK	A10
CALENDAR	A20
OUR WORLD	A23
Vol. XLIV, Issue 029	

TURNING WASTEWATER into CLEAN WATER

\$57 million upgrade to Avon's wastewater treatment facility ushers in a new era for water district



ZOE GOLDSTEIN/VAIL DAILY

The end products of the Eagle River Water & Sanitation District's wastewater treatment process are biosolids (left) and cleaned water (right).

EAGLE RIVER WATER & SANITATION DISTRICT/COURTESY PHOTO

The 3.5 year, \$57 million project to upgrade the Eagle River Water & Sanitation District's Avon Wastewater Treatment Facility to meet higher standards for nutrients released into the river was completed in the fall. On Wednesday, July 24, members of the public were invited to tour the updated facility.

Zoe Goldstein
zgoldstein@vaildaily.com

When the Avon Wastewater Treatment Facility was built in 1969, Avon looked a little different. There was no Harry A. Nottingham Park, and no Nottingham Lake neighboring the facility, but people living between West Vail and Avon needed their wastewater processed.

Every decade or two, the plant received upgrades to keep operations current.

In September, the latest update to the facility, a \$57 million, five-year nutrient upgrades project, was completed. The result is a plant that looks, feels and runs very differently.

The Eagle River Water & Sanitation District invited members of the public to tour the updated Avon Wastewater Treatment Facility on Wednesday, July 24.

The \$57 million project is "the largest project the district has done, to date," said Dick Cleveland, district board chair, to those gathered to tour the plant. "Things like this are absolutely imperative for keeping the river clean, and the water safe."

WHAT DOES A WASTEWATER TREATMENT FACILITY DO?

"We take a lot of pride in being wastewater operators," said Tim Drescher, supervisor of the Avon

Wastewater Treatment Facility. "You're part of a system that's taking in this extremely polluted water, and you're putting it back into the river ... oftentimes cleaner than the water that's in the river in the first place."

Wastewater treatment facilities take in wastewater — the water that goes down drains, from toilets, showers and the like — and clean it so the water can be released back into the river, and the solids removed.

The Avon facility can process up to 4.3 million gallons of water per day, the most of the district's three plants. On average, the Avon plant processes about 1.7 to 1.8 million gallons per day, with spikes around the holidays.

"There are two main byproducts of wastewater treatment. One is clean water going out into the river. The other is biosolids, which are typically really rich in nitrogen and phosphorous, and can be used as a fertilizer," Drescher said.

Wastewater goes through seven main types of treatment processes between when it arrives at the plant as raw wastewater and when it is released back into the river as clean, clarified effluent, or flow returned to the river.

"99% of what comes into a wastewater plant is just water," Drescher said. Most of that water is returned right back to the Eagle River.

The water released by the plant is "sometimes even cleaner than the water in the river itself," Drescher said.

WASTEWATER, A18

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BUILDERS VS. BREAKERS

The U.S. General behind the Abraham Accords on the future of the Middle East

In conversation with **MAX NEUBERGER**, publisher of Jewish insider, The Circuit and EJP



Retired Two-Star U.S. Army General Miguel Correa was a leading member of the team that established the Abraham Accords, a name he is credited with coining.

Born in Puerto Rico, raised in Kuwait, completing high school and college in Florida, Gen Correa was stationed around the world with the U.S. Army and U.S. Special Forces before rising to the rank of General.

Join us to hear his unique perspective on an ever-changing Middle East landscape and how the builders of the region can prevail over the breakers.

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EAGLE RIVER WATER & SANITATION DISTRICT/COURTESY PHOTO

Eagle River Water & Sanitation District Wastewater Manager Chris Giesting leads visitors on a tour of the Avon Wastewater Treatment Facility on Wednesday, July 24.

WASTEWATER

From page A2

Solid waste is removed from the wastewater at the Avon plant and processed at the Edwards Wastewater Treatment Facility, where it is turned into biosolids that can be used by the public.

Much of the cleaning of the water is done by naturally occurring bacteria and microorganisms, or bugs.

“Wastewater treatment, we’re just big bug farmers,” Drescher said. “We’re trying to create an environment where bacteria and microorganisms can thrive and oxidize any incoming waste.”

“We take a lot of pride in not using chemicals; we like to use the natural biological tools that are in place already to be able to treat (wastewater),” Drescher said. “We’re doing what nature can do, but on an industrial scale.”

The Avon facility uses just one chemical, a glycerin-based byproduct of the biodiesel manufacturing industry that is both non-hazardous and reusable.

“It’s an extra carbon source for our phosphorus-accumulating organisms and our de-nitrifying organisms,” Drescher said.

Odors at the Avon plant are controlled through two towers filled with granular activated carbon. Odors bind to the carbon, neutralizing the scent. The towers were installed early on in the project.

“Since we got these in, we have received zero offsite odor complaints that can be credited back to wastewater,” Drescher said.

WHY TAKE ON THIS PROJECT?

In 2012, the Colorado Department of Public Health and the Environment passed Regulation 85, which requires all wastewater treatment plants processing over 2 million gallons of water per day to limit the amount of nitrogen and phosphorus they release in their effluent.

“These are (in) things that we all flush down our drains, whether it’s urine, fecal matter, soaps, detergents,” said Siri Roman, general manager for the district.

Too much nitrogen and phosphorus in rivers and lakes can speed algae growth, limiting the oxygen that fish and other aquatic life need to survive.

Additionally, certain older parts of the plant needed upgrades.

“There was a need for a lot of capital replacement due to aging infrastructure and equipment that was past its useful life,” Drescher said. “That was determined in design, or pre-design.”

THE PLANT CONTINUED TO RUN DURING CONSTRUCTION

The project took five years of planning, design and construction.

“A really incredible amount of thought went into this project, to make sure we were spending our rate payers’ money efficiently and effectively, setting us up for the future, so that 50 years from now, this plant can still operate,” Roman said.

Construction took 41 months from groundbreaking to completion, finishing on Sept. 30.

The plant had to continue to operate during construction, processing millions of gallons of wastewater per day from households and businesses between West Vail and Avon.

“We can’t just shut down a wastewater plant while we’re doing construction,” Drescher said. “We can’t just say, ‘stop flushing toilets, stop taking showers.’”

Keeping the plant running during construction involved “a lot of planning and preparation, both between district staff, our engineer and our contractor,” Drescher said. District staff analyzed the construction plan to come up with methods of procedure to keep the plant fully operational. “It was a very collaborative process.”



SOMETHING TO SAY?

Vail Daily

Let the editor know at letters@vaildaily.com



EAGLE RIVER WATER & SANITATION DISTRICT/COURTESY PHOTO

The Avon Wastewater Treatment Facility is centrally located next to Harry A. Nottingham Park in Avon. Pictured here are new and old aeration basins during mixed liquor splitter perforated slab placement.

WASTEWATER

From page A18

RESULTS OF THE NUTRIENT UPGRADES PROJECT

“We essentially went from one era of technology in biological nutrient removal to a more sophisticated, contemporary, and relevant era of biological nutrient removal,” Drescher said. “In order to do that, you have to reconfigure your biological process, and that involves internal construction to your wastewater treatment process.”

The main nutrient-related upgrades occurred on the plant’s aeration basins, to cultivate different characteristics to encourage the growth of different types of

microorganisms and bacteria that convert waste into different forms.

“Since the upgrades were completed, effluent concentrations of total inorganic nitrogen have been reduced by 43% and total phosphorus by 93%,” according to the handout the district provided to those taking the tour.

Operator access and control over the plant, especially the aeration basins, also improved. While formerly, operators could only access the aeration basins through two-by-three-foot windows, now operators can comfortably walk above the basins to take samples and examine their performance.

“Prior to the construction project, operator access was super limited, we could only see certain

parts of our process, but now we can essentially see all of it and have a much greater understanding and appreciation for it, and be able to react quickly because we can actually see what’s going on,” Drescher said.

The plant’s aeration capacity was also increased from 1.2 million gallons to 1.8 million gallons to prepare for population growth in the valley.

To pay for the project, the district took on bonds, or loans similar to a mortgage. To pay back the bonds, wastewater rates increased for ratepayers this year. On average, the cost to ratepayers from the project is \$9.04 per single-family equivalent, or 3,000 square feet of home, per month.



EAGLE RIVER WATER & SANITATION DISTRICT/COURTESY PHOTO

This photo, taken in 2020, before construction began, shows an access hallway from the old Wastewater Treatment Facility. Before the updates, wastewater operators had to look through the small window into the aeration basins. This is in stark contrast to the new facility, in which operators can walk around the aeration basins from above and look down at the water.



EAGLE RIVER WATER & SANITATION DISTRICT/COURTESY PHOTO

Eagle River Water & Sanitation District Board Chair Dick Cleveland (center) and General Manager Siri Roman (right) address those preparing to tour the updated Avon Wastewater Treatment Facility on Wednesday, May 24.

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FINANCE?

Eagle County School District is looking for new Finance Committee members.

The committee meets quarterly on the first Tuesday of August, November, February, and May at 5:30 p.m. in the Board Room at Red Canyon High School in Gypsum. The committee serves as an external monitor to help ensure the District functions in a fiscally prudent manner, with a high level of financial stewardship.

- Reviews and monitors financial operations
- Ensures fiscal alignment with the Strategic Plan
- Reviews financial statements and expenses
- Reviews short and long term planning
- Considers capital improvement plans
- Reviews proposed annual budget goal alignment

We seek members who possess expertise in accounting, auditing, and financial reporting needed to understand and address financial issues within the district. The Board reviews applications and appoints candidates.

Apply online:
eagleschools.net/finance



CLIMATE & ENVIRONMENT

The American West's last quarter-century ranks as the driest in 1,200 years, research shows



Fish carcasses lie on dried mud on the shore of Lake Mead in 2022. The reservoir near Las Vegas is the largest on the Colorado River and stores water for Nevada, Arizona, California and Mexico. (Gina Ferazzi/Los Angeles Times)

By Ian James

Staff Writer

Graphics by Sean Greene

July 30, 2024 3 AM PT

Three years ago, climate researchers shocked drought-weary Californians when they revealed that the American West was experiencing its driest 22-year period in 1,200 years, and that this severe [megadrought](#) was being intensified by global warming.

Now, a UCLA climate scientist has reexamined the data and found that, even after two wet winters, the last 25 years are still likely the driest quarter-century since the year 800.

"The dryness still wins out over the wetness, big time," said UCLA professor Park Williams.

The latest climate data show that the years since 2000 in western North America — from Montana to California to northern Mexico — have been slightly drier on average than a similar megadrought in the late 1500s.

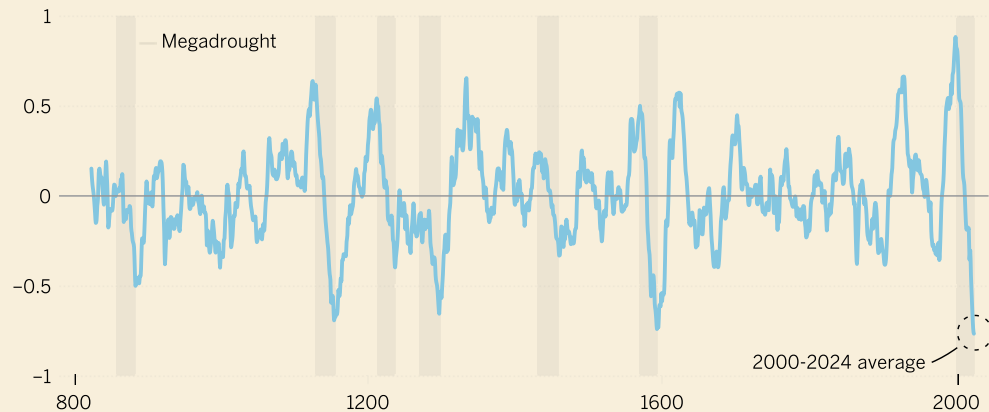
Williams shared his findings with the Los Angeles Times, providing an update to his widely cited 2022 [study](#), which he co-authored with scientists at Columbia University's Lamont-Doherty Earth Observatory.

The new findings reveal that even the unusually wet conditions that drenched the West since the start of 2023 pale in comparison to the long stretch of mostly dry years over the previous 23 years.

Megadroughts over the centuries

Since 2000, western North America has experienced the driest 25-year period in at least 1,200 years — just slightly drier than a megadrought in the late 1500s.

Soil moisture



The trend shown is a 25-year average of summer soil moisture anomalies. Includes data through June 2024. Park Williams / UCLA

Sean Greene LOS ANGELES TIMES

And that dryness hasn't been driven by natural cycles alone. Williams and his colleagues have estimated that a significant portion of the drought's severity — roughly 40% — is attributable to warming driven by the burning of fossil fuels and rising levels of greenhouse gases. The warming that has occurred in the region, an increase of more than 2.5 degrees Fahrenheit since recordkeeping began more than a century ago, has intensified the dry conditions, making the latest megadrought significantly more severe than it would be without climate change.

But are we still in a megadrought? How will we know when the megadrought is finally over?

Williams said those questions will take some time to answer, and the conclusions will only become clear in hindsight.

“Based on the definition of megadrought that we’ve been using, which involves looking at the past 10 years to see if dry or wet conditions prevailed, we can only see the termination of a megadrought in hindsight,” Williams said. “If the next few years are on average wet, that will mark the end of the megadrought. If they’re dry, the megadrought will continue.”



A boat motors across Lake Powell on the Arizona-Utah border in 2021. The reservoir, the second-largest on the Colorado River, has declined dramatically over the last 25 years. (Luis Sinco / Los Angeles Times)

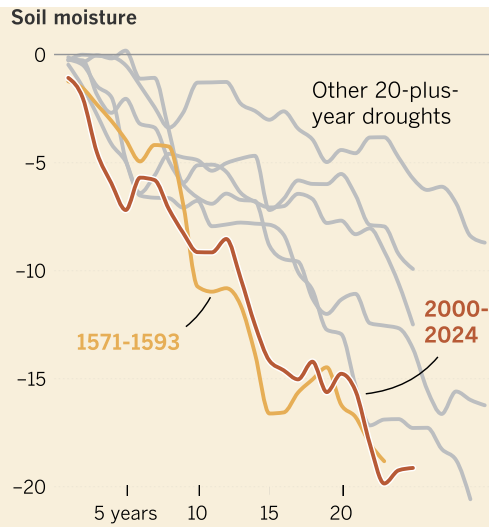
Williams and his colleagues track the severity of drought using a 10-year running average of summer soil moisture throughout western North America.

They compare this century’s drought and other megadroughts using ancient records captured in the growth rings of trees. Wood cores extracted from thousands of trees provide data for about 1,600 sites across the region, enabling scientists to reconstruct the soil moisture centuries ago.

A comparable megadrought occurred from 1571 to 1593, ending after 23 years. Williams said his latest review of data through June shows that the last 25 years, when compared with the late 1500s, have been “ever so slightly drier.”

Comparing the West’s megadroughts

The megadrought beginning 2000 in the American West has been similar in severity to a 23-year megadrought in the 1500s. Research shows global warming has intensified the extreme dryness over the last 25 years.



Summer soil moisture anomalies are shown in cumulative standard deviations from the 800-2024 average. Includes data through June 2024.

Park Williams / UCLA

Sean Greene LOS ANGELES TIMES

“It’s important to recognize that even the megadroughts in our tree-ring reconstruction had extremely wet years within them, wet years like 2023,” Williams said. “Megadroughts can take brief breaks.”

Whether this megadrought continues or eases will become clearer over the next year or two, he said.

If wetter-than-average conditions continue, he said, it might be the case that the megadrought already ended after 23 years in 2023. On the other hand, it might be that the rest of 2024 turns out to be drier than average and is followed by more dry years, in which case the megadrought would still be underway.



A visitor surveys the Colorado River and Canyonlands National Park at Dead Horse Point near Moab, Utah. (Luis Sinco/Los Angeles Times)

Williams said his research shows that much of the drought's severity has been driven by the West's extreme natural variability, which he likens to a yo-yo going from wet to dry. But these variations are now superimposed on a drying trend with climate change, he said, a "shifting baseline" that is making droughts more severe and longer lasting.

Williams said it's very likely the megadrought since 2000 wouldn't be on par with the long droughts of centuries ago if it weren't for the warmer temperatures being unleashed by human-caused climate change.

"We don't know whether or not the next 10 years is going to be a good luck sequence or a bad luck sequence," Williams said. "But we do know, based on climate modeling and math and logic, that as long as the atmosphere continues to get warmer, then the chances that the next 10 years are drier than average will be higher than they were in the last century."

**CLIMATE & ENVIRONMENT**

Western megadrought is worst in 1,200 years, intensified by climate change, study finds

Feb. 14, 2022

Scientists and policy experts widely agree that adapting to aridification driven by climate change in the western U.S. will [require major changes](#) in how limited water supplies are managed for farms, cities and the environment.

"Regardless of what happens in the next few years, which will be dictated mostly by the randomness of weather, as the atmosphere continues to warm we should expect it to continue to degrade our water supply," Williams said. "A warmer atmosphere is a thirstier atmosphere, and without a compensating increase in precipitation, which has not occurred, humans and ecosystems will be left with less water."

That will require a continued focus on curbing unsustainable overuse of water from rivers and aquifers, he said. "Even during periods of good luck and wetness, we cannot forget that the long-term average is drifting towards being drier."

**CLIMATE & ENVIRONMENT**

California farmers set to cut use of Colorado River water, temporarily leaving fields dry

July 11, 2024

Williams said the data suggest that by 2100, the region will most likely have experienced one or two additional megadroughts, which could be even more severe.

And yet, looking to the future, the biggest source of uncertainty in the climate projections is how people will respond in addressing climate change.

“We, the burners of fossil fuels, actually have a huge ability to control the climate over the rest of this century. The climate of the 2090s is very sensitive to what we do with fossil fuels in the next 20 to 30 years,” Williams said. “We need to reduce carbon emissions in order to stabilize the climate.”

More to Read

El Niño makes an exit, but La Niña could bring dry conditions back to California

June 14, 2024



The U.S. Drought Monitor is a critical tool for the arid West. Can it keep up with climate change?

June 3, 2024



How is climate change affecting heat waves in California and the West?

June 2, 2024



Ian James

Ian James is a reporter who focuses on water in California and the West. Before joining the Los Angeles Times in 2021, he was an environment reporter at the Arizona Republic and the Desert Sun. He previously worked for the Associated Press as a correspondent in the Caribbean and as bureau chief in Venezuela. He is originally from California.



Sean Greene

Sean Greene is an assistant data and graphics editor, focused on visual storytelling at the Los Angeles Times.