



# WATER RESOURCES REPORT

## AKERS ACRES SUBDIVISION NO. 1A

2855 & 2875 Akers Dr.,  
Colorado Springs, CO 80922

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PREPARED FOR:

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D & K Akers, LLC  
11826 E Del Timbre Dr.  
Scottsdale, AZ 85259**

PREPARED BY:

**Galloway & Company, Inc.  
1155 Kelly Johnson Blvd., Suite 305  
Colorado Springs, CO 80920**

DATE:

**May 13<sup>th</sup>, 2022**



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- D. Cherokee MD 2022 Drinking Water Quality Report Covering Data for Calendar Year 2021

## I. Introduction

### General Project Information

**Location:** Akers Acres Subdivision No. 1a project site is located in the Northwest Quarter of Section 32, Township 13 South, Range 65 West, of the Sixth Principal Meridian, County of El Paso, State of Colorado.

- The properties surrounding Akers Acres Subdivision No. 1a include:
  - **North:** THAT PART OF LOT 2 AKERS ACRES SUB 1 AS FOLS, BEG AT SE COR OF LOT, RUN N ON E SEC LN 221.83 FT, W 822.34 FT TO A PT ON ELY R/W LN OF CRI+P RR, SWLY ON SD R/W LN AN ARC DIST OF 389.67 FT, E ON S LOT LN 1141.96 TO POB, EX THAT PT CONV TO COUNTY BY REC #210030746
  - **East:** THE SANDS FIL NO 1
  - **South:** LOT 4 AKERS ACRES SUB 1, EX THAT PT CONV TO COUNTY FOR R/W/ BY REC #209135994
  - **West:** HANNAH RIDGE AT FEATHERGRASS FIL NO 5

**Size:** Lot 3, Akers Acres, Subdivision 1 (As Platted) consists of 9.26 acres. Akers Acres Subdivision No. 1a (As Replatted) proposes to subdivide Lot 3 into two lots: Lot 3a (4.26 acres) & Lot 3b (5.00 acres)

**Zoning:** The existing parcel is zoned M CAD-O. The zoning will remain unchanged with this project.

**Schedule #:** 5332001008



Figure 1. Vicinity Map

## General Requirements

### **Water Design Criteria**

This project is located within the Cherokee Metropolitan District service area. The water infrastructure design will substantially comply with the Colorado Springs Utilities (CSU) Water Line Extension & Service Standards (LESS) 2021 adopted by Cherokee Metropolitan District (CMD). CMD maintains a list of exceptions to these standards which supersede the Colorado Springs Standards in any conflict.

### **Future Development**

This project proposed to subdivide "Lot 3, Akers Acres Subdivision 1" into two lots, Lot 3a and Lot 3b. It is anticipated that Lot 3b will propose to develop a warehouse. Any future development on Lot 3b will be required to provide its own water resource report to El Paso County for review.

### **Water Resource Report Requirements**

All headings that are followed by *colored and italicized* text is a required item noted in the El Paso County Land Development Code 8.4.7. Water Supply Standards – (B) Water Resource Report.

## **II. Water Resource Infrastructure Provisions**

### Summary of the Proposed Subdivision

*The water resource report shall include a summary of the proposed subdivision....;*

Please refer to the *General Project Information* under the *Introduction* section provided above. A Point of Connection (POC) exhibit is provided in Appendix A.

### Information Regarding Sufficient Quantity of Water

*Calculation of Water Demand; Calculation of Quantity of Water Available; Groundwater Source Information; Production Wells Information; Surface Water Sources;*

#### **Calculation of Water Demand**

The existing building on the property (Lot 3a) used 0.49 acre-feet in 2020, the highest use in the last five years. The new commitment for this existing building was set to this level, rounded up to 0.50 AFY. It is anticipated that a warehouse will be developed (1 unit). The projected water use for the new building on the property was based on floor space and irrigated area supplied by the developer. These calculations are provided in below:

Table 1. Calculation of Future Water Demand

	<b>Area of Interest</b>	<b>Calculation of Water Demand</b>	<b>Projected Water Use</b>
Irrigation	12,000 SF (fully watered grass)	Based on county estimates	0.67 AFY
Domestic (Interior)	9,000 SF (warehouse)	See calculations below	1.01 AFY
<i>Total</i>			<i>~ 1.7 AFY</i>

<b>Area of Interest</b>	<b>Factor From CMD (gallon per day per square feet)</b>	<b>Conversion (gallons to cubic feet)</b>	<b>Conversion (days to years)</b>	<b>Conversion (cubic feet to acre-feet)</b>	<b>Project Water Use (acre-feet per year)</b>
9,000 ft <sup>2</sup>	0.1 gallon	0.134 ft <sup>3</sup>	365 days	1 acre-foot	<b>1.01 AFY</b>
	1 ft <sup>2</sup>	1 gallon	1 year	43,560 ft <sup>3</sup>	

Table 2. Calculation of Existing Water Demand

	Area of Interest	Calculation of Water Demand	Projected Water Use
Irrigation & Domestic	Existing Lot 3a	Based on the highest water use in the last five years	0.49 AFY
<i>Total</i>			<i>~ 0.50 AFY</i>

**Total Projected Water Use = 2.2 AFY**

The existing water use totals to 0.50 AFY. Adding the projected water demand for the warehouse yields 2.2 AFY. However, the District water balance will only change by 1.7 AFY. See the provided commitment letter in Appendix B.

**Calculation of Quantity of Water Available**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Groundwater Source Information**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Production Wells Information**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Surface Water Sources**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Information Regarding Sufficient Dependability of Water Supply**

*The water resource report shall include the following information to allow a determination of sufficient dependability of the water supply to be established: Proof of Ownership; Financial Plan; Description of Water Supply; Calculations Demonstrating Quantity; Evidence of Water System Source; Evidence of Short-Term Supply of Fire;*

**Proof of Ownership**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Financial Plan**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Description of Water Supply**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

**Calculations Demonstrating Quantity**

Please refer the included “*Water Provider’s Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*” for this information, located in Appendix C.

### **Evidence of Water System Source**

Please refer the included "*Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*" for this information, located in Appendix C.

### **Evidence of Short-Term Supply for Fire**

Please refer the included "*Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*" for this information, located in Appendix C.

### **Information Regarding Sufficient Quality**

*The following shall be supplied: (1) Chemical analyses of proposed water from each proposed source; (2) Evidence of compliance with County and State water quality standards; and (3) Discussion of potential for water quality degradation from on-site and off-site sources*

Please refer the included "*Cherokee MD 2022 Drinking Water Quality Report Covering Data for Calendar Year 2021*" for this information, located in Appendix D.

### **Public and Private Commercial Water Providers**

*Information from Commercial Water Providers; Water Providers Report;*

#### **Information from Commercial Water Providers**

Please refer the included "*Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*" for this information, located in Appendix C.

### **Water Providers Report**

Please refer the included "*Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive*" for this information, located in Appendix C.

## **III. Conclusion**

This Water Resource Report for Akers Acres Subdivision No. 1a meets or exceeds the requirements provided in the El Paso County Land Development Code (LDC) and Engineering Criteria Manual (ECM).

## **IV. References**

1. Water Line Extension and Service Standards, Colorado Springs Utilities, April 2021.
2. Cherokee Metropolitan District Water and Wastewater Infrastructure Construction Standards, Cherokee Metropolitan District, October 20<sup>th</sup> 2021.
3. Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive, Cherokee Metropolitan District, May 6<sup>th</sup> 2022.
4. Cherokee MD 2022 Drinking Water Quality Report Covering Data for Calendar Year 2021, Cherokee Metropolitan District, 2022.

## APPENDIX A





NOTES:

1. THIS PLAN IS CONCEPTUAL AND NOT MEANT FOR FINAL DESIGN OR LEGAL DEPICTION. PLEASE REFER TO THE FINAL PLAT FOR ALL FINAL LOCATIONS OF PROPERTY BOUNDARIES AND EASEMENTS.
2. LOT 3A IS ANTICIPATED TO DEVELOP. A WAREHOUSE IS PLANNED FOR LOT 3A BUT THE FINAL LOCATION OF THE WAREHOUSE IS STILL UNDER DISCUSSION.
3. THIS EXHIBIT SHOWS THE LOCATION OF THE POINT OF CONNECTION FOR WATER AND WASTEWATER. THE SERVICE LINE LAYOUT IS NOT PROVIDED BECAUSE THE WAREHOUSE LOCATION IS UNKNOWN AT THIS TIME. HOWEVER, A UTILITY EASEMENT IS PROVIDED FOR ANTICIPATION OF THE WASTEWATER SERVICE LINE.

MARKSHEFFEL ROAD (PUBLIC)

APPROXIMATE POINT OF CONNECTION  
FOR WATER SERVICE LINE (FUTURE)

LOT 3A  
~5.00 ACRES

50' RADIUS FIRE VEHICLE  
TURNAROUND EASEMENT

AKERS ACRES  
SUBDIVISION NO. 1A

40' PUBLIC INGRESS & EGRESS  
& UTILITY EASEMENT

LOT 3B  
~4.26 ACRES

APPROXIMATE POINT OF CONNECTION  
FOR WASTEWATER SERVICE LINE  
(FUTURE)

CHICAGO ROCK ISLAND &  
PACIFIC RAILWAY R.O.W.

AKERS DRIVE (PUBLIC)

AKERS ACRES SUBDIVISION NO. 1A  
A REPLAT OF LOT 3, AKERS ACRES SUBDIVISION 1  
EL PASO COUNTY, STATE OF COLORADO

POINT OF CONNECTION (POC) EXHIBIT

Project No:	DKA01
Drawn By:	CMWJ
Checked By:	RGD
Date:	05/11/2022

**Galloway**

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## APPENDIX B





## CHEROKEE METROPOLITAN DISTRICT

6250 Palmer Park Blvd., Colorado Springs, CO 80915-2842

Telephone: (719) 597-5080 Fax: (719) 597-5145

April 27<sup>th</sup>, 2022

Grant Dennis

1155 Kelly Johnson Blvd. Suite 305

Colorado Springs, CO 80920

*Sent via email: grantdennis@gallowayus.com*

Re: Water and Sewer Service to **2875 Akers Drive**  
Commitment Letter No. **2022-09 (Revision of 2022-01)**

Dear Grant Dennis,

As requested, this document will serve as a formal Letter of Commitment from the Cherokee Metropolitan District to provide municipal water and wastewater service for two proposed lots at 2875 Akers Dr. The first lot includes an existing building which has been served by Cherokee Metropolitan District since 2007. The second lot is currently vacant but is planned to be a warehouse. The new building will require an additional water and wastewater commitment, but the water and wastewater demand of the existing building is not expected to change as a result of the development.

Cherokee Metropolitan District staff, along with the developer, have determined the following water demand estimate for the proposed uses:

Type of Use	Demand (AF/yr)
Domestic	1.01
Irrigation	0.67
<b>Total</b>	<b>1.7</b>

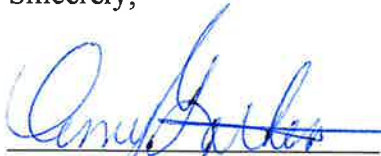
Over the last five years, the existing building has used an average of **0.5** acre-feet per year (AFY). Both parts of the development are expected to collectively use approximately **2.2** AFY and the District thus affirms its commitment to service this subdivision in that total amount, consisting of an existing commitment of **0.5** AFY and a new commitment of an additional **1.7** AFY.

The existing building is currently connected to the Cherokee Metropolitan District wastewater system and produces an average of 200 gallons per day of wastewater based on past billing. The new development is conservatively estimated to produce 900 gallons per day assuming no indoor consumptive use. This volume is in line with District projections for buildout of this area and does not impact buildout plans for the collection system or wastewater treatment facility.

This water commitment is hereby made exclusively for this specific development project at this site within the District. To confirm this commitment you must provide the District with a copy of the final plat approval from El Paso County Development Services within 12 months of the date of this letter. Otherwise, the District may use this allocation for other developments requesting a water commitment. If the subject project is re-platted, you must submit a new commitment request prior to submitting the re-plat to El Paso County, which may result in a recalculation of the water demand for the project.

If I may be of further assistance please contact me at your convenience.

Sincerely,



Amy Lathen  
General Manager

Cc: Peter Johnson; Water Counsel w/ encl: sent via email  
Steve Hasbrouck; Board President w/ encl: sent via email  
Jeff Munger; Water Resource Engineer: sent via email  
Kevin Brown; Jr. Engineer: sent via email

## APPENDIX C





# **CHEROKEE METROPOLITAN DISTRICT**

**6250 Palmer Park Blvd., Colorado Springs, CO 80915-2842**

**Telephone: (719) 597-5080 Fax: (719) 597-5145**

## **Water Provider's Supplementary Report for Proposed Redevelopment of 2875 Akers Drive**

May 6<sup>th</sup>, 2022

This document has been prepared in response to El Paso County review comments regarding calculation of anticipated water demand for the development at 2875 Akers Drive.



## **Introduction**

Cherokee Metropolitan District (CMD) is a Title 32 special District which provides water and wastewater to an approximately 5000-acre enclave of unincorporated El Paso county surrounded by the City of Colorado Springs. Currently CMD serves approximately 7000 residential taps and 600 commercial taps in addition to bulk users in eastern El Paso County including Schriever Air Force Base.

CMD water is sourced entirely from groundwater in two regions. The majority is recovered from the alluvial Upper Black Squirrel (UBS) Aquifer in eastern El Paso County through 20 wells. The remainder is sourced from two wells in deep bedrock aquifers in the northern part of the county on the “Sundance Ranch” property. Water from eight of the 20 wells in the eastern part of the county can only be used to serve a fixed set of customers. Water for the main service area of CMD comes only from the remaining 12 wells in UBS along with the two wells in Black Forest.

## **Calculation of Anticipated Water Demand**

The property at 2875 Akers has been a District customer since 1999. The owner is currently seeking to construct an additional building on the property and needs a new water commitment based on the expected demand of the new building. El Paso County regulations require that any water commitments made to new development on property that has existing buildings quantify the water use of the existing structures and make a new commitment to the entire property based on those use levels, even if the property is being divided.

The existing building on the property used 0.49 acre-feet in 2020, the highest use in the last five years. The new commitment for this existing building was set to this level, rounded up to 0.5 AFY. Projected water use for the new building on the property was based on floor space and irrigated area supplied by the developer. Using County estimates for irrigation on 12,000 square feet of fully watered grass yields 0.67 AFY for irrigation. Using the estimate for general commercial of 0.1 gallon per day per square foot for the 9000 square feet of floorspace yields 1.01 AFY from interior uses. Adding these yields 1.7 AFY from the new use. Adding the current property use yields 2.2 AFY, though the District water balance will only change by 1.7 AFY.

## **Water Supplies**

Cherokee has eight wells that are restricted to serving a maximum of 653 AFY to specified in-basin customers. Excess allocation for these wells is unavailable for new developments, even if they are inside the Basin, so this water is tracked separately from CMD’s general supply portfolio. CMD’s other alluvial wells are available for export outside the UBS basin. The total annual volume available to CMD from these exportable supplies is 3,985 AFY

(Table 1). The physical yield of these wells is significantly higher than their annual appropriation, allowing flexibility in satisfying summer peak demand.

Table 1: Water rights and tributary status of Exportable Wells

Well Number	Water Right (AFY)	2020 Use (AFY)	Permit Number	Aquifer	Aquifer Status
Well 9	176	175	14145-FP-R	UBS Alluvium	Tributary
Well 10	176	143	14146-FP-R	UBS Alluvium	Tributary
Well 11	244	174	6821-FP-R	UBS Alluvium	Tributary
Well 12	244	166	11198-FP	UBS Alluvium	Tributary
Well 13	1268	830	49988-F	UBS Alluvium	Tributary
Well 14	0	0	52429-F	UBS Alluvium	Tributary
Well 15*	281	117	54070-F	UBS Alluvium	Tributary
Well 16*	219	115	54069-F	UBS Alluvium	Tributary
Well 17*	175	123	63094-F	UBS Alluvium	Tributary
Well 18	225	161	16253-RFP-R	UBS Alluvium	Tributary
Well 19	95	65	20567-RFP-R	UBS Alluvium	Tributary
Well 20	400	94	4332-RFP	UBS Alluvium	Tributary
Well 21	290	224	81782-F	UBS Alluvium	Tributary
DN-4**	110	88	78315-F	Denver Aquifer	Non-Tributary
AR-1***	347.7	306	75881-F	Arapahoe Aquifer	Non-Tributary
<b>Total</b>	<b>4184.7</b>	<b>2464</b>			

\*Wells 15-17 can produce a total of 609 AFY instead of their nominal total of 675 AFY. This limitation is reflected in the 3984.7 AFY total available production.

\*\*CMD holds additional water rights in the Denver Aquifer associated with the Sundance Ranch property but this particular well has a maximum annual recorded yield of 110 AFY.

\*\*\*As of December 2019 AR-1 has 2040 AF of banked water which allows actual pumping to exceed allocation on a limited basis.

CMD is developing owned water supplies to increase available water and improve flexibility in provision of summer peak flows. By the end of 2020, these new wells will contribute 458 AFY of capacity to the CMD system (Table 2) for a total of 4,443.0 AFY. Since 2011, actual demand from CMD customers has fallen 30-35% below commitments, partially due to some currently committed developments being incomplete but largely due to water saving measures undertaken by CMD customers.

Table 2: New water supplies slated for completion in 2020

Well Number	Water Right (AFY)	Permit Number	Aquifer	Aquifer Status
Well 22	153.5	27571-FP	UBS Alluvium	Tributary
DA-1	40.3	83604-F	Dawson	Not Non-Tributary
DA-4	64.5	83603-F	Dawson	Not Non-Tributary
<b>Total</b>	<b>258.3</b>			

By the end of 2021, CMD will have a total of 4,443 AFY of exportable water supplies sourced from alluvial and deep bedrock aquifers. Further development in the Denver Basin is not planned at this time and instead CMD is focusing on acquiring new renewable supplies proximate to existing infrastructure.

## Water Commitments

CMD's water commitments stand at 4,033 AFY before the addition of the proposed development. These commitments are broken down below in Table 3. The Tipton and Kane commitments are related to an arrangement from the mid-2000's where developers reserved commitments on two new wells. The water from these wells is considered fully committed to these developers even if they have not yet begun the projects associated with the reserved commitments. Due to a complex legal history, the "Kane" water right was not tied to a specific physical water well but instead operates as a commitment served from CMD's general supply portfolio. The "Tipton" water right corresponds to CMD's Well 18.

Table 3: CMD Commitments before addition of new development

Commitments	AFY
In-District (2015)	2693
Committed Since 2015	613.9
Schriever Air Force Base	537
Kane	200
Tipton	225
Construction	25
Parks	25
<b>Total</b>	<b>4318.9</b>

## Water Balance

With 4,443.0 AFY of exportable supply and 4318.9 AFY of commitments, CMD has a water balance of 124.1 AFY before the subject development. After commitment of 1.7 AFY to this development, the District will have 122.4 AFY remaining for additional commitments.

Table 4: Water balance with new development

Water Balance Before New Commitment	124.1 AFY
New Commitment: 2875 Akers Drive	1.7 AFY
<b>Water Balance Remaining</b>	<b>122.4 AFY</b>

## Other Relevant District Information

### Recent Water Acquisitions/Losses

CMD has not acquired any new water rights since 2015 but has been developing owned water rights. CMD has not engaged in any water trades nor lost any water rights in the last year. The District is not currently under contract to purchase new water rights although CMD is investigating purchases of renewable water rights proximate to its existing infrastructure on an ongoing basis.

### New Augmentation Plans

CMD is currently pursuing a replacement plan in partnership with Meridian Service Metropolitan District (MSMD) in order to maximize the efficiency of its water supplies.

### Major Water System Capital Improvements

CMD has been actualizing owned water by drilling wells and beginning production on several well sites. In February of 2020 CMD brought the Sweetwater 5 well (81782-F) online after a year of planning and construction. The District recently completed drilling of the Albrecht Well (Well 22) which after connection to the system will produce 153.5 AFY annually.

CMD is currently preparing to install pumps in two existing wells in the Dawson Aquifer (83603-F & 83604-F). Beyond these projects, additional well construction in the Denver Basin is not anticipated at this time, although CMD has a substantial amount of undeveloped water rights in the Denver Basin Aquifers.

Smaller-scale improvements to the distribution system to improve reliability and resiliency have been ongoing and include deeper computer integration, upgrades to treatment systems, rehabilitation of tanks, and emergency generator refurbishment.

## APPENDIX D





# CHEROKEE MD 2022 Drinking Water Quality Report

## Covering Data For Calendar Year 2021

*Public Water System ID:* CO0121125

**Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.**

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact NICHOLAS GRIFFIN at 719-597-5080 with any questions or for public participation opportunities that may affect water quality.

### General Information

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting [epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water).

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants:** salts and metals, which can be naturally-occurring or result from urban storm water

runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.

- Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.

- Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

### **Source Water Assessment and Protection (SWAP)**

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit [wqcdcompliance.com/ccr](http://wqcdcompliance.com/ccr). The report is located under “Guidance: Source Water Assessment Reports”. Search the table using 121125, CHEROKEE MD, or by contacting NICHOLAS GRIFFIN at 719-597-5080. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It **does not** mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and

prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

### **Our Water Sources**

<b><u>Sources (Water Type - Source Type)</u></b>	<b><u>Potential Source(s) of Contamination</u></b>
WELL NO 1 (Groundwater-Well) WELL NO 2 (Groundwater-Well) WELL NO 3 (Groundwater-Well) WELL NO 4 (Groundwater-Well) WELL NO 5 (Groundwater-Well) WELL NO 6 (Groundwater-Well) WELL NO 7 (Groundwater-Well) WELL NO 8 (Groundwater-Well) WELL NO 9 (Groundwater-Well) WELL NO 10 (Groundwater-Well) WELL NO 11 (Groundwater-Well) WELL NO 12 (Groundwater-Well) WELL NO 13 (Groundwater-Well) WELL NO 15 (Groundwater-Well) WELL NO 16 (Groundwater-Well) WELL NO 17 (Groundwater-Well) WELL NO 18 (Groundwater-Well) WELL NO 19 (Groundwater-Well) WELL NO 20 (Groundwater-Well) WELL NO 21 (Groundwater-Well) WELL AR-1 (Groundwater-Well) WELL DN-4 (Groundwater-Well)	Row Crops, Fallow, Small Grains, Pasture / Hay, Septic Systems, Road Miles

### Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90<sup>th</sup> Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
- **Parts per million = Milligrams per liter (ppm = mg/L)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

### Detected Contaminants

CHEROKEE MD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2021 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report. **Note:** Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

Disinfectants Sampled in the Distribution System						
<b>TT Requirement:</b> At least 95% of samples per period (month or quarter) must be at least 0.2 ppm <b><u>OR</u></b> If sample size is less than 40 no more than 1 sample is below 0.2 ppm <b>Typical Sources:</b> Water additive used to control microbes						
Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2021	<u>Lowest period</u> percentage of samples meeting TT requirement: 100%	0	26	No	4.0 ppm

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 <sup>th</sup> Percentile	Sample Size	Unit of Measure	90 <sup>th</sup> Percentile AL	Sample Sites Above AL	90 <sup>th</sup> Percentile AL Exceedance	Typical Sources
Copper	06/21/2021 to 07/28/2021	0.49	30	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	06/21/2021 to 07/28/2021	2	30	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System									
Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2021	9.95	9.3 to 10.6	2	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2021	27.1	25 to 29.2	2	ppb	80	N/A	No	Byproduct of drinking water disinfection

Radionuclides Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2021	4.55	0 to 9.3	6	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2021	3.12	1 to 5.7	6	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2021	4.67	2 to 10	6	ppb	30	0	No	Erosion of natural deposits
Gross Beta Particle Activity	2019	4	0 to 8	2	pCi/L*	50	0	No	Decay of natural and man-made deposits
*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern for Gross Beta Particle Activity.									

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Arsenic	2021	2.86	2 to 4	7	ppb	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2021	0.06	0.04 to 0.09	7	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2021	2.43	1 to 4	7	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2021	0.36	0.3 to 0.43	6	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2021	5.53	0 to 7.2	9	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2021	5.71	3 to 8	7	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
<b>Nitrate:</b> <u>Nitrate in drinking water at levels above 10 ppm</u> is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.									



### Secondary Contaminants\*\*

\*\*Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2021	55.96	38.2 to 90.3	7	ppm	N/A

### Unregulated Contaminants\*\*\*

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) ([epa.gov/dwucmr/national-contaminant-occurrence-database-ncod](http://epa.gov/dwucmr/national-contaminant-occurrence-database-ncod)). Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below. Note that the results with the < symbol indicate that the sample result was below the minimum reporting limit for that analyte. Sample results that were below the minimum reporting limit were factored into the averages in the table below using the minimum reporting limit numbers.

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure
Manganese	2018	11.86	<0.4-35.1	6	ppb
Germanium	2018	0.3287	<0.3-0.472	6	ppb
Quinoline	2018	.0237	<0.02-0.0423	6	ppb
HAA5	2018	6.102	1.887-8.488	8	ppb
HAA6Br	2018	13.126	1.696-19.72	8	ppb
HAA9	2018	14.297	3.066-20.668	8	ppb
Bromide	2018	145.5	<20-202	6	ppb
Total Organic Carbon	2018	1090	<1000-1310	6	ppb

\*\*\*More information about the contaminants that were included in UCMR monitoring can be found at: [drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR](http://drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR). Learn more about the EPA UCMR at: [epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule](http://epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule) or contact the Safe Drinking Water Hotline at (800) 426-4791 or [epa.gov/ground-water-and-drinking-water](http://epa.gov/ground-water-and-drinking-water).

### **Violations, Significant Deficiencies, and Formal Enforcement Actions**

#### **Non-Health-Based Violations**

These violations do not usually mean that there was a problem with the water quality. If there had been, we would have notified you immediately.

<b>Name</b>	<b>Description</b>	<b>Time Period</b>
PLANS AND SPECIFICATIONS RULE	UNAPPROVED SYSTEM/TREATMENT - R540  Approval documents for a new well (Well 21-Sweetwater 5) were not submitted to CDPHE by the contracted project engineer working on behalf of Cherokee Metropolitan District, prior to the introduction of the well into the drinking water system in February of 2020. Note: <u>This issue had no adverse impact to water quality or public health.</u> All the required water quality testing had been conducted on the source water, and the well had been constructed following CDPHE design criteria, but the paperwork had not been filed and reviewed by CDPHE prior to the introduction of the well.	February 2020 – February 2021
<b>Steps taken to resolve the violation(s), and the resolution date:</b> When Cherokee Metropolitan District discovered this oversight in early 2021, the well was taken out of service while the required documents were submitted and reviewed by CDPHE engineering. The violation was resolved on May 17, 2021 when the department issued approval of drinking water final plans and specifications for construction (Sweetwater Well No. 5 aka CMD Well No. 21). A public notice was issued with the 2021 Water Quality Report (for calendar year 2020) and is also included here (for calendar year 2021), due to the violation occurring during part of both calendar years.		