

# **Rivermeadows Water System 2020 Water Quality Report (WY5600786)**

## **Is my water safe?**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## **Where does my water come from?**

Our is supplied by three groundwater wells located within Rivermeadows.

## **Source water assessment and its availability**

A source water assessment has been completed, and a copy of the EPA Sanitary Survey is available upon request.

## **Why are there contaminants in my drinking water?**

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and

herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **How can I get involved?**

Actively practice water conservation!

For more information, please contact Matt Ost diek at Rendezvous Engineering. P.C., Phone: (307) 733-5252.

### **Description of Water Treatment Process**

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

### **Water Conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

## **Source Water Protection Tips**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## **Other Information**

### **Violations of terms of variance, exemption, or administrative or judicial order**

The Rivermeadows water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what the District is doing to correct this situation.

On 10/26/2020, the District received a Second Violation Administrative Order from EPA, addressing failure to comply with the initial EPA order, dated 7/10/2018.

A routine sanitary survey conducted on 9/30/2015 by the Environmental Protection Agency Region 8 (EPA) determined that the air vent on the on the water storage tank does not have sufficient height above the adjacent soil surface.

A routine sanitary survey conducted on 10/16/2018 by the Environmental Protection Agency Region 8 (EPA) questioned the integrity of the well cap seals on each of the three operating water supply wells and requested documentation of functioning sanitary well seal gaskets and tightened wall cap bolts for each well.

As required by EPA's Ground Water Rule, we were required to take action to correct this deficiency. However, we failed to take this action by the deadlines established by EPA.

Please Note: The District performs monthly bacteria testing in accordance with EPA requirements. Over the past two years, this testing has consistently verified the absence of Coliform and E. Coli bacteria in the Rivermeadows water distribution system.

The District is cooperating with EPA in resolving these issues as follows:

- Water Tank Vent – The Wyoming Department of Environmental Quality (DEQ) approved the

original tank construction plans which included details for the vent. DEQ has questioned the need to modify the tank vent and will need to review and issue a permit for any proposed modification. The District is presently working to custom design a suitable vent modification suitable to both EPA and DEQ. Once the design is approved, the vent will be shop fabricated and installed. Anticipated completion date: 6/15/2021.

- Well Cap and Seals – The well seals have been inspected and are showing some deterioration. New well seals have been ordered and will be installed when site and weather conditions are favorable. Anticipated completion date: 5/1/2021.

### **Significant Deficiencies**

Significant Deficiencies were identified through EPA sanitary surveys performed on 9/30/2015 and 10/16/2018. Reference the Violations section (above) for specific details, potential health effects, and corrective steps taken.

### **Results of voluntary monitoring**

Total Dissolved Solids, TDS: 203 mg/L

### **Additional Information for Lead**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Rivermeadows Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### **Additional Information for Arsenic**

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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## **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in

your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb)	NA	80	.4	NA	NA	2020	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Fluoride (ppm)	4	4	.1	NA	NA	2019	No	Erosion of natural deposits; Water additive which promotes strong teeth;
Nitrate [measured as Nitrogen] (ppm)	10	10	.5	NA	NA	2020	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	0	NA	NA	2019	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium (optional) (ppm)	NA		6.5	NA	NA	2019	No	Erosion of natural deposits; Leaching
<b>Microbiological Contaminants</b>								
Total Coliform (TCR) (positive samples/month)	0	1	0	NA	NA	2020	No	Naturally present in the environment
<b>Radioactive Contaminants</b>								
Radium (combined 226/228) (pCi/L)	0	5	.6	NA	NA	2019	No	Erosion of natural deposits
Uranium (ug/L)	0	30	.5	NA	NA	2019	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	2.3	2020	3	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	2	2020	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

<b>Violations and Exceedances</b>
<p><b>Copper - action level at consumer taps</b></p> <p>Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.</p> <p>Three of the five samples collected on 06/24/2020 from homes exceeded the copper action level of 1.3 mg/L. Six additional home samples were collected on 9/30/2020 of which four samples exceeded the copper action level. Normal copper samples are collected after allowing water to remain in the piping system overnight.</p> <p>Flowing water samples were taken on 9/29/2020 and 9/30/2020 from one location where the water was not allowed to remain in the piping system overnight. The flowing water tests detected 0.07 and 0.06 mg/L of copper, well under the 1.3 mg/L action limit. On 9/30/202, additional water samples were taken at the point of entry of the water supply and of each of the three groundwater supply wells. Copper was only detected in Well #2 at 0.03 mg/L, again well under the 1.3 mg/L action level.</p> <p>This additional testing verifies that the copper source is not from the groundwater supply wells, but most likely from the copper water service lines extending from the plastic (PVC) pipe water mains and/or from the copper pipe and plumbing fixtures within the homes.</p> <p>The District is presently investigating water treatment options in conjunction with Guidance from EPA to reduce copper corrosion to not exceed the EPA allowable limit. Additional water testing is being completed to verify a preferred treatment method. The additional water treatment method is to be selected by 06/30/2020 for EPA review and approval. Once the treatment method is determined, the treatment system design, permitting, and construction are to be completed before 03/31/2023.</p>

## Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Arsenic (ppb)	0	10	ND	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
Haloacetic Acids (HAA5) (ppb)	NA	60	ND	No	By-product of drinking water chlorination

Unit Descriptions	
Term	Definition
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Ground Water Rule violations	mmm	mmm	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	mmm

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