2022 Consumer Confidence Report Chewelah South

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. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

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?

There are three wells. Two primaries on Alm Lane and an emergency on Sand Canyon Rd.

Source water assessment and its availability

A copy of the source water assessment is available at City Hall.

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?

You can get involved by attending City Council meetings on the first and third Wednesdays of the month at 6:30pm in the council chambers.

Description of Water Treatment Process

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

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 5 minute 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 for more information.

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. Chewelah North 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.

WATER QUALITY 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	or MRDL C	TT, or MRDL	Your Water	Range Low	Range High	Sample Date	Violatio n	Typical Source
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb)	NA	80	2.26	NA		2022	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	NA	60	ND			2022	No	By-product of drinking water disinfection
Inorganic Contaminants								
Fluoride (ppm)	4	4	0.113	NA		2018	No	Erosion of natural deposits; Water additive which promotes strong teeth;
Mangenese			.0943			2022		
Nitrite	1	1	.122			2022	No	
Nitrate [measured as Nitrogen] (ppm)	10	10	.1	NA		2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Nitrate / Nitrite	10	10	.1			2018	No	
Barium (ppm)	2	2	.0159	NA		2018	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Lead - source water (mg/L)		0.015	ND	NA		2021	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - source water (mg/L)		1.3	.00156	NA		2021	No	Corrosion of household plumbing systems; Erosion of natural deposits
Arsenic (ppb)	0	10	.00817	NA		2022	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Mercury [Inorganic] (ppb)	2	2	0	NA		2018	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland

Beryllium (ppb)	4	4	ND	NA		2018	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Antimony (ppb)	6	6	ND	NA		2018	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Sodium (optional) (ppm)		MPL	11.4	NA		2018	No	Erosion of natural deposits; Leaching
Cyanide [as Free Cn] (ppb)	200	200	ND	NA		2018	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Selenium	.05	.05	ND			2018	No	
Nickel	.1	.1	ND			2018	No	
Iron	.3	.3	.172			2018	No	
Microbiological Contaminants								
Turbidity (NTU)	NA	1	0.42	NA		2012	No	Soil runoff
Total Coliform (positive samples/month)	0	1	0	NA		2012	No	Naturally present in the environment
Fecal coliform/E. coli - in the distribution system (positive samples)	0	0	0	NA		2012	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	0.22	NA		2010	No	Erosion of natural deposits
Gross Alpha (pCi/L)	0	15	<3	NA		2020	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	0.22	NA		2010	No	Erosion of natural deposits
Radium 226 (pCi/L)	0	5	1.00	NA		2013	No	Erosion of natural deposits
Radium 228 (pCi/L)	0	5	0.210	NA		2019	No	Erosion of natural deposits
Synthetic organic contaminants including pesticides and herbicides								
2,4,5-TP (Silvex) (ppb)	50	50	0	NA		2015	No	Residue of banned herbicide
Monochloroacetic aced			ND			2020		
Dichloroacetic acid			ND			2020		
Trichloroacetic acid			ND			2020		
Monobromoacetic acid			ND			2020		
Dibromoacetic acid			ND			2020		
2,4-D		70	0	NA		2015	No	
Pentachlorophenol (ppb)	0	1	0	NA		2015	No	Discharge from wood preserving factories
Dalapon (ppb)	200	200	0	NA		2015	No	Runoff from herbicide used on rights of way
Dinoseb (ppb)	7	7	0	NA		2015	No	Runoff from herbicide used on soybeans and vegetables
Picloram (ppb)	500	500	0	NA		2015	No	Herbicide runoff

Endrin (ppb)	2	2	0	NA		2009	No	Residue of banned insecticide
Lindane (ppt)	200	200	0	NA		2009	No	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	40	40	0	NA		2009	No	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Toxaphene (ppb)	0	3	0	NA		2009	No	Runoff/leaching from insecticide used on cotton and cattle
Atrazine (ppb)	3	3	0	NA		2009	No	Runoff from herbicide used on row crops
Benzo(a)pyrene (ppt)	0	200	0	NA		2009	No	Leaching from linings of water storage tanks and distribution lines
Chlordane (ppb)	0	2	0	NA		2009	No	Residue of banned termiticide
Chloramben	.2	.2	0	NA		2015		
Di (2-ethylhexyl) adipate (ppb)	400	400	0	NA		2009	No	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	0	6	0	NA		2009	No	Discharge from rubber and chemical factories
Heptachlor (ppt)	0	400	0	NA		2009	No	Residue of banned pesticide
Hexachlorobenzene (ppb)	0	1	0	NA		2009	No	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	50	50	0	NA		2009	No	Discharge from chemical factories
Simazine (ppb)	4	4	0	NA		2010	No	Herbicide runoff
PCBs [Polychlorinated biphenyls] (ppt)	0	500	0	NA		2010	No	Runoff from landfills; Discharge of waste chemicals
Volatile Organic Contaminants								
Vinyl Chloride (ppb)	0	2	ND	NA		2018	No	Leaching from PVC piping; Discharge from plastics factories
Chloroform			.68			2022		
Bromodichloromethane			.20			2022		
Dibromochloromethane			.76			2022		
Bromoform			ND			2022		
1,1-Dichloroethylene (ppb)	7	7	ND	NA		2018	No	Discharge from industrial chemical factories
Carbon Tetrachloride (ppb)	0	5	ND	NA		2018	No	Discharge from chemical plants and other industrial activities
Benzene (ppb)	0	5	ND	NA		2018	No	Discharge from factories; Leaching from gas storage tanks and landfills
1,2-Dichloroethane (ppb)	0	5	ND	NA		2018	No	Discharge from industrial chemical factories
Trichloroethylene (ppb)	0	5	ND	NA		2018	No	Discharge from metal degreasing sites and other factories
Dichloromethane (ppb)	0	5	ND	NA		2018	No	Discharge from pharmaceutical and chemical factories
cis-1,2-Dichloroethylene (ppb)	70	70	ND	NA		2018	No	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	0	5	ND	NA		2018	No	Discharge from industrial chemical factories
Toluene (ppm)	1	1	ND	NA		2018	No	Discharge from petroleum factories
1,1,2-Trichloroethane (ppb)	3	5	ND	NA		2018	No	Discharge from industrial chemical factories

Tetrachloroethylene (ppb)	0	5	ND	NA		2018	No	Discharge from factories and dry cleaners
Chlorobenzene (monochlorobenzene) (ppb)	100	100	ND	NA		2018	No	Discharge from chemical and agricultural chemical factories
Ethylbenzene (ppb)	700	700	ND	NA		2018	No	Discharge from petroleum refineries
Styrene (ppb)	100	100	ND	NA		2018	No	Discharge from rubber and plastic factories; Leaching from landfills
Xylenes (ppm)	10	10	ND	NA		2018	No	Discharge from petroleum factories; Discharge from chemical factories
p-Dichlorobenzene (ppb)	75	75	ND	NA		2018	No	Discharge from industrial chemical factories
o-Dichlorobenzene (ppb)	600	600	ND	NA		2018	No	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	100	100	ND	NA		2018	No	Discharge from industrial chemical factories
1,2,4-Trichlorobenzene (ppb)	70	70	ND	NA		2018	No	Discharge from textile-finishing factories
Methylene Chloride	5	5	ND			2018	No	
O-Xylene	.5	.5	ND			2018	No	

Undetected Contaminants

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

Contaminants	MCLG or MRDLG	MCL or MRDL	Your Water	Violation	Typical Source
Cadmium (ppb)	5	5	ND	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	100	100	ND	No	Discharge from steel and pulp mills; Erosion of natural deposits
Selenium (ppb)	50	50	ND	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	0.5	2	ND	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
2,4-D (ppb)	70	70	ND	No	Runoff from herbicide used on row crops
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
ppt	ppt: parts per trillion, or nanograms per liter
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive

positive samples	positive samples/yr: The number of positive samples taken that year
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
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

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