

## 2020 Annual Water Quality Report

Beaver Water District, P.O. Box 400, Lowell, Arkansas 72745-0400.  
(479) 756-3651, FAX (479) 751-4356

### UNREGULATED CONSTITUENTS - Monitored by ADH and BWD

Physical and Chemical Parameters	Units	BWD
Alkalinity (Phenolphthalein) *	ppm as CaCO3	0
Alkalinity (Total) *	ppm as CaCO3	53 (avg)
Calcium *	ppm as Ca	26 (avg)
Range of Results	ppm as Ca	16-34
Conductivity *	µS/cm	193 (avg)
Hardness (Total) *	ppm as CaCO3	72 (avg)
Range of Results	ppm as CaCO3	46 - 94
Magnesium	ppm as Mg	1.64
Nickel	ppm	ND
Potassium	ppm	1.62
Silica *	ppm as SiO2	4
Sodium	ppm	6.98

### PRIMARY STANDARDS - Health Related and Mandated by U.S. EPA & ADH

Disinfectant	Units	MRDLG	MRDL	BWD
Total Residual Chlorine* (Average)	ppm	4.0	4.0	1.60
Range of Results	ppm			1.28-1.97
Chlorine Dioxide*	ppm	0.8	0.8	0.04 (avg)
Clarity	Units	MCLG	MCL	BWD
Turbidity * (Treated Finished Water)			>0.3 NTU in	
Highest yearly sample result	NTU	n/a	>5% of samples	0.16
Average NTU	NTU		or	0.08
Lowest % of samples meeting limit	%		any 1 sample >1	100
			NTU	
Microbiological	Units	MCLG	MCL	BWD
Total Coliform Bacteria	P/A	0	5%/month	0
Fecal Coliform or <i>Escherichia coli</i>	P/A	0	0	0
Inorganic Chemicals	Units	MCLG	MCL	BWD
Antimony	ppb	6	6	ND
Arsenic	ppb	0	10	ND
Asbestos	MFL	7	7	Waiver
Barium	ppm	2	2	0.021
Beryllium	ppb	4	4	ND
Cadmium	ppb	5	5	ND
Chlorite*	ppm	0.8	1.0	0.24 (avg)
Chromium	ppb	100	100	ND
Copper	ppm	1.3	AL=1.3	ND
Cyanide	ppb	200	200	ND
Fluoride (Average)	ppm	4.0	4.0	0.73
Range of Results	ppm			0.66-0.84
Lead	ppb	0	AL=15	ND
Mercury	ppb	2	2	ND
Nitrate (NO3-N) *	ppm	10	10	0.51 (avg)
Selenium	ppb	50	50	ND
Thallium	ppb	0.5	2	ND

There were no EPA Safe Drinking Water Act (SDWA) monitoring or compliance violations in 2020 for Beaver Water District.

### Definitions

**Maximum Contaminant Level Goal or 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 Contaminant Level or MCL:** 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, BAT.

**Maximum Residual Disinfectant Goal or MRDLG:** The level of a drinking disinfectant below which there is no known or expected risk to health.

**Maximum Residual Disinfectant Level or MRDL:** The highest level of a disinfectant allowed in drinking water.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**Action Level or AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**mrem/yr** = millirems per year (a unit of absorbed radiation dose)

**ND** = Non-detected, constituent not present at detection limit

**NTU** = Nephelometric Turbidity Units

**P/A** = Presence / Absence or Present / Absent

**pCi/L** = picocuries per liter (a measure of radioactivity)

**ppm** = parts per million, or milligrams per liter (mg/l)

**ppb** = parts per billion, or micrograms per liter (ug/l)

**RAA** = Running Annual Average

**uS/cm** = microSiemens per centimeter

**Waiver** = an exemption to perform monitoring issued by the ADH based on system evaluations

\* Analyzed and reported by Beaver Water District. All other analyses in this report by ADH.

Radionuclides	Units	MCLG	MCL	BWD	Violation
Gross Alpha	pCi/L	0	15 pCi/L	ND	No
Gross Beta	mrem	0	+4 mrem/yr	ND	No
Ra-228	pCi/L	0	+5 pCi/L	ND	No
Ra-226	pCi/L	0	+5 pCi/L	ND	No
Sr-89 Activity	pCi/L	0	+4 mrem/yr	ND	No
Sr-90 Activity	pCi/L	0	+4 mrem/yr	ND	No
Tritium (Average)	pCi/L	0	+4 mrem/yr	365.7	No
Uranium	pCi/L	0	30 ug/L	ND	No

\* Tritium and Strontium are Beta particle emitters and fall in the combined 4 mrem/yr MCL of the Gross Beta parameter.

\* Ra-228 and Ra-226 have a combined MCL of 5 pCi/L

### SECONDARY STANDARDS - Aesthetic Standards Recommended by EPA & ADH

Physical Parameters	Units	MCLG	BWD
Apparent Color	units	15	5
pH * (Average)	units	6.5 - 8.5	8.4
Inorganic Chemicals	Units	MCLG	BWD
Aluminum	ppm	0.05 - 0.2	ND
Chloride	ppm	250	5.5
Corrosivity * (Average)	SI	Non-corrosive	0.08
Langelier Saturation Index			
Iron	ppm	0.3	ND
Manganese	ppm	0.05	ND
Silver	ppm	0.1	ND
Sulfate	ppm	250	24.2
Total Dissolved Solids *	ppm	500	112 (avg)
Zinc	ppm	5	ND

<u>Volatile Organic Contaminants (VOCs) - Regulated</u>	<u>Units</u>	<u>MCLG</u>	<u>MCL</u>	<u>BWD</u>
Total Trihalomethanes (TTHMs)				
Highest Running 12 Month Average	ppb	N/A	80	37
Range of quarterly samples	ppb			17.2-47.5
Haloacetic Acids 5 (HAA5)				
Highest Running 12 Month Average	ppb	N/A	60	27
Range of quarterly samples	ppb			14.6-33.0
Benzene	ppb	0	5	ND
Carbon Tetrachloride	ppb	0	5	ND
Chlorobenzene	ppb	100	100	ND
o-Dichlorobenzene (1,2-Dichlorobenzene)	ppb	600	600	ND
p-Dichlorobenzene (1,4-Dichlorobenzene)	ppb	75	75	ND
1,2-Dichloroethane	ppb	0	5	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	ppb	7	7	ND
cis-1,2-Dichloroethene (c-1,2-Dichloroethylene)	ppb	70	70	ND
trans-1,2-Dichloroethene (t-1,2-Dichloroethylene)	ppb	100	100	ND
Dichloromethane (Methylene Chloride)	ppb	0	5	ND
1,2-Dichloropropane	ppb	0	5	ND
Ethylbenzene	ppb	700	700	ND
Styrene	ppb	100	100	ND
Tetrachloroethene (Tetrachloroethylene)	ppb	0	5	ND
Toluene	ppm	1	1	ND
1,2,4-Trichlorobenzene	ppb	70	70	ND
1,1,1-Trichloroethane	ppb	200	200	ND
1,1,2-Trichloroethane	ppb	3	5	ND
Trichloroethene (Trichloroethylene)	ppb	0	5	ND
Vinyl Chloride	ppb	0	2	ND
Xylenes, Total	ppm	10	10	ND

**Disinfection By-Product Precursors - Monitored by ADH**

<u>Parameter</u>	<u>Removal Ratio Required</u>	<u>BWD</u>
Total Organic Carbon (TOC)	≥1.00	1.29

<u>Volatile Organic Contaminants (VOCs) - Unregulated</u>	<u>Units</u>	<u>BWD</u>
Bromobenzene	ppb	ND
Bromochloromethane (Chlorobromomethane)	ppb	ND
Bromodichloromethane	ppb	2.23
Bromoform	ppb	ND
Bromomethane	ppb	ND
n-Butylbenzene	ppb	ND
sec-Butylbenzene	ppb	ND
tert-Butylbenzene	ppb	ND
Chloroethane (Ethyl Chloride)	ppb	ND
Chloroform	ppb	11.0
Chloromethane	ppb	ND
2-Chlorotoluene	ppb	ND
4-Chlorotoluene	ppb	ND
Dibromochloromethane	ppb	ND
1,2-Dibromo-3-chloropropane (DBCP)	ppb	ND
1,2-Dibromoethane	ppb	ND
Dibromomethane (Methylene Bromide)	ppb	ND
1,3-Dichlorobenzene	ppb	ND
Dichlorodifluoromethane	ppb	ND
1,1-Dichloroethane	ppb	ND
1,3-Dichloropropane	ppb	ND
2,2-Dichloropropane	ppb	ND
1,1-Dichloropropene	ppb	ND
cis-1,3-Dichloropropene	ppb	ND
trans-1,3-Dichloropropene	ppb	ND
Hexachlorobutadiene	ppb	ND
Isopropylbenzene	ppb	ND
p-Isopropyltoluene	ppb	ND
Methyl tert-Butyl Ether (MTBE)	ppb	ND
Naphthalene	ppb	ND
n-Propylbenzene	ppb	ND
1,1,1,2-Tetrachloroethane	ppb	ND
1,1,2,2-Tetrachloroethane	ppb	ND
1,2,3-Trichlorobenzene	ppb	ND
Trichlorofluoromethane	ppb	ND
1,2,3-Trichloropropane	ppb	ND
1,2,4-Trimethylbenzene	ppb	ND
1,3,5-Trimethylbenzene	ppb	ND