



2022

**WATER
QUALITY
SUMMARY**

For Treated Water

2022



2022 Analytical Results Summary for Pueblo's Treated Water								
Parameter	Units	Primary Standard	Secondary Standard	MCL	MCLG	Range of Detection in Pueblo Water	Pueblo Treated Water Average Level	Number of Samples Analyzed
Clarity								
Turbidity	NTU	◆		0.5	0.5	0.05 - 0.22	0.09	251
Microbiological								
Total Coliform Bacteria**	P/A	◆		less than 5% per month positive	0	A	A	2386
E. coli Bacteria**	P/A	◆		0	0	A	A	2386
Radiologicals^o								
Gross Alpha	pCi/L			N/A	N/A	2.7 - 4.4	3.4	2
Gross Alpha Excluding Uranium	pCi/L	◆		15	0	3.2	3.2	1
Radium-226	pCi/L	◆		5	0	<0.2 - 0.82	0.41	2
Radium-228	pCi/L	◆		5	0	0.38 - 1.7	1.1	2
Combined Uranium	ug/L			30	0	1.7 - 1.8	1.8	2
Combined Radium	pCi/L	◆		5	0	<0.51 - 2.52	1.51	2
Inorganic Chemicals								
Trace Metals								
Aluminum	ug/L		◆	50 - 200	N/A	21.4 - 77.4	48.3	12
Antimony	ug/L	◆		6	6	<1.00	<1.00	12
Arsenic	ug/L	◆		10	0	<1.00	<1.00	12
Barium	ug/L	◆		2000	2000	47.3 - 72.3	57.7	12
Beryllium	ug/L	◆		4	4	<1.00	<1.00	12
Cadmium	ug/L	◆		5	5	<1.00	<1.00	12
Calcium	mg/L			N/A	N/A	35.0 - 52.5	44.3	12
Chromium	ug/L	◆		100	100	<1.00	<1.00	12
Cobalt	ug/L			N/A	N/A	<1.00	<1.00	12
Copper	ug/L		◆	1000	N/A	4.15 - 22.9	13.9	12
Iron	mg/L		◆	300	N/A	<0.50	<0.50	12
Lead	ug/L			N/A	N/A	<1.00	<1.00	12
Magnesium	mg/L			N/A	N/A	10.7 - 15.4	13.5	12
Manganese	ug/L		◆	50	N/A	<1.00 - 2.58	1.46	12
Mercury	ug/L	◆		2	2	<0.50	<0.50	12
Molybdenum	ug/L			N/A	N/A	3.94 - 5.36	4.53	12
Nickel	ug/L			N/A	N/A	2.36 - 3.89	3.20	12
Potassium	mg/L			N/A	N/A	2.43 - 3.27	2.85	12
Selenium	ug/L	◆		50	50	3.78 - 5.79	4.80	12
Silver	ug/L		◆	100	N/A	<1.00	<1.00	12
Sodium	mg/L			N/A	N/A	12.5 - 19.1	16.1	12
Thallium	ug/L	◆		2	0.0005	<1.00	<1.00	12
Vanadium	ug/L			N/A	N/A	<1.00 - 1.00	<1.00	12
Zinc	ug/L		◆	5000	N/A	<1.00 - 3.15	1.31	12
Organic Chemicals								
Trihalomethanes □ (Disinfection Byproduct)								
Bromodichloromethane	ug/L	◆			0	1.50 - 2.80	2.06	16
Bromoform	ug/L				0	<0.50	<0.50	16
Chloroform	ug/L				N/A	3.70 - 8.40	5.74	16
Dibromochloromethane	ug/L				6	<0.50 - 0.61	0.52	16
Total Trihalomethanes	ug/L	◆		80	N/A	5.20 - 10.5	7.95	16
Haloacetic Acids □ (Disinfection Byproduct)								
Bromoacetic acid	ug/L	◆			N/A	<1.00	<1.00	16
Dibromoacetic acid	ug/L				N/A	<1.00	<1.00	16
Dichloroacetic acid	ug/L				0	<1.00 - 16.0	7.50	16
Monochloroacetic acid	ug/L				N/A	<2.00 - 3.40	2.10	16
Trichloroacetic acid	ug/L				300	<1.00 - 15.0	2.58	16
Total Haloacetic Acid	ug/L	◆		60	N/A	7.90 - 31.0	10.4	16

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Organic Chemicals (cont.)								
Total Volatile Organic Compounds (VOC's)								
Benzene	µg/L	◆		5	0	<0.50	<0.50	1
Carbon tetrachloride	µg/L	◆		5	0	<0.50	<0.50	1
Chlorobenzene	µg/L	◆		100	100	<0.50	<0.50	1
o- Dichlorobenzene	µg/L	◆		600	600	<0.50	<0.50	1
p- Dichlorobenzene	µg/L	◆		75	75	<0.50	<0.50	1
1,2- Dichloroethane	µg/L	◆		5	0	<0.50	<0.50	1
1,1- Dichloroethylene	µg/L	◆		7	7	<0.50	<0.50	1
cis-1,2- Dichloroethylene	µg/L	◆		70	70	<0.50	<0.50	1
trans-1,2- Dichloroethylene	µg/L	◆		100	100	<0.50	<0.50	1
1,2- Dichloropropane	µg/L	◆		5	5	<0.25	<0.25	1
Ethylbenzene	µg/L	◆		700	700	<0.50	<0.50	1
Methylene chloride	µg/L	◆		5	0	<0.50	<0.50	1
Styrene	µg/L	◆		100	100	<0.50	<0.50	1
Tetrachloroethylene	µg/L	◆		5	5	<0.50	<0.50	1
1,1,1- Trichloroethane	µg/L	◆		200	200	<0.50	<0.50	1
Toluene	µg/L	◆		1000	1000	<0.50	<0.50	1
1,2,4- Trichlorobenzene	µg/L	◆		70	70	<0.50	<0.50	1
1,1,2- Trichloroethane	µg/L	◆		5	3	<0.50	<0.50	1
Trichloroethylene	µg/L	◆		5	0	<0.50	<0.50	1
Vinyl chloride	µg/L	◆		2	0	<0.20	<0.20	1
m,p- Xylene	µg/L			N/A	N/A	<0.50	<0.50	1
o-Xylene	µg/L			N/A	N/A	<0.50	<0.50	1
Xylenes, Total	µg/L	◆		10000	10000	<0.50	<0.50	1
Pesticides ****								
Aldrin	µg/L	◆		N/A	N/A	<0.0095	<0.0095	2
alpha-Chlordane	µg/L			2	2	<0.0095	<0.0095	2
gamma-Chlordane	µg/L			2	0	<0.0095	<0.0095	2
Chlordane	µg/L			2	2	<0.19	<0.19	2
Dieldrin	µg/L			N/A	N/A	<0.0095	<0.0095	2
Endrin	µg/L			2	2	<0.0095	<0.0095	2
Hexachlorocyclopentadiene	µg/L			50	50	<0.095	<0.095	2
Heptachlor	µg/L			0.4	0.4	<0.0095	<0.0095	2
Heptachlor epoxide	µg/L			0.2	0.2	<0.0095	<0.0095	2
Hexachlorobenzene	µg/L			1	0	<0.0095	<0.0095	2
Methoxychlor	µg/L			40	40	<0.047	<0.047	2
Toxaphene	µg/L			3	0	<0.71	<0.71	2
gamma-BHC	µg/L			0.2	0.2	<0.0095	<0.0095	2
Aroclor 1016	µg/L			0.5	0	<0.076	<0.076	2
Aroclor 1221	µg/L			0.5	0	<0.24	<0.24	2
Aroclor 1232	µg/L			0.5	0	<0.095	<0.095	2
Aroclor 1242	µg/L			0.5	0	<0.095	<0.095	2
Aroclor 1248	µg/L			0.5	0	<0.095	<0.095	2
Aroclor 1254	µg/L			0.5	0	<0.095	<0.095	2
Aroclor 1260	µg/L			0.5	0	<0.095	<0.095	2
PCB-Total	µg/L			0.5	0	<0.24	<0.24	2
1,2-Dibromo-3-chloropropane	µg/L			0.2	0.2	<0.0097	<0.0097	2
1,2-Dibromoethane	µg/L			0.05	0.05	<0.0097	<0.0097	2
Alachlor	µg/L			2	0	<0.1	<0.1	2
Atrazine	µg/L			3	3	<0.1	<0.1	2
Simazine	µg/L			4	4	<0.07	<0.07	2

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Organic Chemicals (cont.)								
Herbicides								
2,4,-D	µg/L	♦		70	70	<0.10	<0.10	2
2,4,5-TP	µg/L			50	50	<0.20	<0.20	2
Dicamba	µg/L			N/A	N/A	<0.30	<0.30	2
Dalapon	µg/L			200	200	<1.0	<1.0	2
Dinoseb	µg/L			7	7	<0.20	<0.20	2
Pentachlorophenol	µg/L			1	0	<0.040	<0.040	2
Picloram	µg/L			500	500	<0.10	<0.10	2
Butachlor	µg/L			N/A	N/A	<0.1	<0.1	2
Metolachlor	µg/L			N/A	N/A	<0.1	<0.1	2
Metribuzin	µg/L			N/A	N/A	<0.1	<0.1	2
Propachlor	µg/L			N/A	N/A	<0.1	<0.1	2
Diquat	µg/L			20	20	<0.40	<0.40	2
Endothall	µg/L			100	100	<9.0	<9.0	2
Carbamate Pesticides								
3-Hydroxycarbofuran	µg/L	♦		N/A	N/A	<0.5	<0.5	2
Aldicarb	µg/L			3	1	<0.5	<0.5	2
Aldicarb sulfone	µg/L			2	1	<0.5	<0.5	2
Aldicarb sulfoxide	µg/L			4	1	<0.5	<0.5	2
Carbaryl	µg/L			N/A	N/A	<0.5	<0.5	2
Methiocarb	µg/L			N/A	N/A	<0.5	<0.5	2
Methomyl	µg/L			N/A	N/A	<0.5	<0.5	2
Oxamyl (Vydate)	µg/L			200	200	<0.5	<0.5	2
Propoxur	µg/L			N/A	N/A	<0.5	<0.5	2
Other Organic Chemicals								
Benzo(a)pyrene	µg/L	♦		0.2	0	<0.02	<0.02	2
Bis(2-ethylhexyl)adipate	µg/L			400	0	<0.57	<0.57	2
Bis(2-ethylhexyl)phthalate	µg/L			6	0	<0.57	<0.57	2

Additional Parameters	Units	Primary Standard	Secondary Standard	MCL	MCLG	Range of Detection in Pueblo Water	Pueblo Treated Water Average Level	Number of Samples Analyzed
Alkalinity (as CaCO ₃)	mg/L			N/A	N/A	74.8 - 107	92.8	52
Ammonia (as Nitrogen)	mg/L			N/A	N/A	0.06 - 0.22	0.14	148
Bromide	mg/L			N/A	N/A	<0.10	<0.10	41
Calcium Hardness (as CaCO ₃)	mg/L			N/A	N/A	94.0 - 138	119	52
Chlorine (Total Chloramine)	mg/L	♦		4	4	3.10 - 4.13	3.59	251
Chloride	mg/L		♦	250	N/A	11.3 - 15.1	13.0	48
Conductivity	µmho/cm		♦	N/A	N/A	344 - 475	412	251
Fluoride	mg/L	♦	♦	4, 2*	4	0.38 - 0.94	0.69	365
Total Hardness (as CaCO ₃)	mg/L			N/A	N/A	128 - 196	161	52
Nitrate (as Nitrogen)	mg/L	♦		10	10	<0.10 - 0.24	0.16	38
Nitrite (as Nitrogen)	mg/L	♦		1	1	<0.10	<0.10	48
Total Nitrate and Nitrite (as Nitrogen)	mg/L	♦		10	10	<0.10 - 0.24	0.16	38
Ortho-Phosphate (as Phosphorous)	mg/L			N/A	N/A	<0.10	<0.10	51
pH	units		♦	6.5-8.5	N/A	7.31 - 7.75	7.49	251
Total Dissolved Solids	mg/L		♦	500	N/A	232 - 306	278	52
Sulfate	mg/L		♦	250	N/A	76.8 - 106	92.8	48
Total Organic Carbon	mg/L	♦		Removal	N/A	1.4 - 1.9	1.6	52

Listed above are regulated and unregulated contaminants detected in Pueblo's drinking water in 2022.
All are below regulated levels.

Drinking water produced by the Whitlock Treatment Facility meets all Health and Safety Standards as mandated by the Safe Drinking Water Act and the State of Colorado.

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Terms and Definitions Used in the Above Data Table

P/A - Presence/Absence - The determination of whether or not there is coliform bacteria present in a water sample.

Primary Standards - Mandatory Health Related Standards

Secondary Standards - Aesthetic Standards

MCL - Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health.

MRDL - Maximum Residual Disinfection Level - The maximum level of disinfectant residual allowed in a distribution system. Total chlorine (chloramine) in the table was measured at the Treatment Plant. Distribution chlorine levels are lower.

Turbidity - Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our plant's filtration system.

NTU - Nephelometric Turbidity Unit - A unit of measurement of turbidity in water.

Oocysts - A life cycle stage of a parasitic organism.

µg/L - microgram per liter or one part per billion

mg/L - milligram per liter or one part per million

AL - Action Level - Results over the action level require changes in water treatment technique.

µmho/cm - a unit of measurement of the conductivity of the water

< - Less Than

☐ - THM and HAA values are an average of all DBP collection points in the distribution system.

* Public notification is required if fluoride concentration exceeds 2.0 mg/L.

** Total coliform and E. coli bacteriological samples are collected at designated locations throughout the distribution system each month.

**** SOCs analyzed in 2020

° Radiologicals analyzed in 2020.

Please contact the Board of Water Works Water Quality Laboratory for any information regarding water quality at 584-0266. Hours are 7:00 am - 3:30 pm Monday through Friday.

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