



| 2017 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 - 0.25 | 0.13 | 250 |
| Microbiological | | | | | | | | |
| Total Coliform Bacteria** | P/A | ◆ | | less than 5% per month positive | 0 | P - A*** | A | 2347 |
| E. coli Bacteria** | P/A | ◆ | | 0 | 0 | A | A | 2347 |
| Giardia | Oocysts/100 L | | | N/A | 0 | ND | ND | 4 |
| Cryptosporidium | Oocysts/100 L | | | N/A | 0 | ND | ND | 4 |
| Radiologicals° | | | | | | | | |
| Gross Alpha | pCi/L | | | N/A | N/A | 2.5 | 2.5 | 1 |
| Gross Alpha (Less Radon and Uranium) | pCi/L | ◆ | | 15 | 0 | 0.2 | 0.2 | 1 |
| Radium-226 | pCi/L | ◆ | | 5 | 0 | 0.1 | 0.1 | 1 |
| Radium-228 | pCi/L | ◆ | | 5 | 0 | 0.3 | 0.3 | 1 |
| Uranium | pCi/L | | | N/A | N/A | 2.3 | 2.3 | 1 |
| Uranium | µg/L | ◆ | | 30 | 0 | 3.3 | 3.3 | 1 |
| Inorganic Chemicals | | | | | | | | |
| Trace Metals | | | | | | | | |
| Aluminum | µg/L | | ◆ | 50 - 200 | N/A | 32.3 - 64.6 | 48.4 | 10 |
| Antimony | µg/L | ◆ | | 6 | 6 | <1.00 | <1.00 | 10 |
| Arsenic | µg/L | ◆ | | 10 | 0 | <1.00 | <1.00 | 10 |
| Barium | µg/L | ◆ | | 2000 | 2000 | 43.2 - 62.5 | 53.5 | 10 |
| Beryllium | µg/L | ◆ | | 4 | 4 | <1.00 | <1.00 | 10 |
| Cadmium | µg/L | ◆ | | 5 | 5 | <1.00 | <1.00 | 10 |
| Calcium | mg/L | | | N/A | N/A | 39.7 - 70.6 | 56.5 | 10 |
| Chromium | µg/L | ◆ | | 100 | 100 | <1.00 | <1.00 | 10 |
| Cobalt | µg/L | | | N/A | N/A | <1.00 | <1.00 | 10 |
| Copper | µg/L | | ◆ | 1000 | N/A | 1.10 - 2.02 | 1.53 | 10 |
| Iron | mg/L | | ◆ | 300 | N/A | <0.50 | <0.50 | 10 |
| Lead | µg/L | | | N/A | N/A | <1.00 | <1.00 | 10 |
| Magnesium | mg/L | | | N/A | N/A | 8.82 - 15.7 | 12.6 | 10 |
| Manganese | µg/L | | ◆ | 50 | N/A | 1.15 - 5.54 | 2.35 | 9 |
| Mercury | µg/L | ◆ | | 2 | 2 | <0.50 | <0.50 | 10 |
| Molybdenum | µg/L | | | N/A | N/A | 3.74 - 4.77 | 4.22 | 10 |
| Nickel | µg/L | | | N/A | N/A | 1.18 - 2.80 | 2.08 | 10 |
| Potassium | mg/L | | | N/A | N/A | 1.64 - 2.51 | 2.16 | 10 |
| Selenium | µg/L | ◆ | | 50 | 50 | 2.55 - 5.37 | 4.46 | 10 |
| Silver | µg/L | | ◆ | 100 | N/A | <1.00 | <1.00 | 10 |
| Sodium | mg/L | | | N/A | N/A | 9.07 - 25.1 | 18.6 | 10 |
| Thallium | µg/L | ◆ | | 2 | 0.0005 | <1.00 | <1.00 | 10 |
| Vanadium | µg/L | | | N/A | N/A | <1.00 - 1.08 | <1.00 | 10 |
| Zinc | µg/L | | ◆ | 5000 | N/A | <1.00 - 1.33 | <1.00 | 10 |



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|--|-------|------------------|--------------------|-------|-------|------------------------------------|------------------------------------|----------------------------|
| Organic Chemicals | | | | | | | | |
| Trihalomethanes □ (Disinfection Byproduct) | µg/L | ◆ | | | | | | |
| Bromodichloromethane | µg/L | | | | 0 | 1.32 - 2.69 | 1.94 | 18 |
| Bromoform | µg/L | | | | 0 | <0.5 | <0.5 | 18 |
| Chloroform | µg/L | | | | N/A | 3.01 - 15.7 | 6.76 | 18 |
| Dibromochloromethane | µg/L | | | | 6 | <0.5 | <0.5 | 18 |
| Total Trihalomethanes | µg/L | ◆ | | 80 | N/A | 4.33 - 18.4 | 8.69 | 18 |
| Haloacetic Acids □ (Disinfection Byproduct) | µg/L | ◆ | | | | | | |
| Bromoacetic acid | µg/L | | | | N/A | <1.00 - 17.1 | <1.00 | 16 |
| Dibromoacetic acid | µg/L | | | | N/A | <1.00 - 1.07 | <1.00 | 16 |
| Dichloroacetic acid | µg/L | | | | 0 | <1.00 - 19.1 | 8.84 | 16 |
| Monochloroacetic acid | µg/L | | | | N/A | <1.00 - 6.98 | <1.00 | 16 |
| Trichloroacetic acid | µg/L | | | | 300 | 1.06 - 6.67 | 2.75 | 16 |
| Total Haloacetic Acid | µg/L | ◆ | | 60 | N/A | 5.83 - 27.1 | 13.5 | 16 |
| Total Volatile Organic Compounds (VOC's) | | ◆ | | | | | | |
| Benzene | µg/L | ◆ | | 5 | 0 | <0.50 | <0.50 | 1 |
| Bromobenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Bromochloromethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Bromodichloromethane | µg/L | | | N/A | N/A | 1.01 | 1.01 | 1 |
| Bromomethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| n-Butylbenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| sec-Butylbenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| tert-Butylbenzene | µg/L | | | N/A | N/A | <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 |
| Chloroethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Chloroform | µg/L | | | N/A | N/A | 3.11 | 3.11 | 1 |
| Chloromethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| o-Chlorotoluene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| p-Chlorotoluene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Dibromochloromethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Dibromomethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| m- Dichlorobenzene | µg/L | ◆ | | N/A | N/A | <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 |
| Dichlorodifluoromethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,1- Dichloroethane | µg/L | | | N/A | N/A | <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 | <0.50 | <0.50 | 1 |
| 1,3- Dichloropropane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 2,2- Dichloropropane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,1- Dichloropropene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| cis-1,3- Dichloropropene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| trans-1,3- Dichloropropene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,3- Dichloropropene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Ethylbenzene | µg/L | ◆ | | 700 | 700 | <0.50 | <0.50 | 1 |
| Hexachlorobutadiene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Isopropylbenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| p-Isopropyltoluene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Methylene chloride | µg/L | ◆ | | 5 | 0 | <0.50 | <0.50 | 1 |
| Naphthalene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| n-Propylbenzene | µg/L | | | N/A | N/A | <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 |
| 1,1,1,2- Tetrachloroethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,1,2,2- Tetrachloroethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Toluene | µg/L | ◆ | | 1000 | 1000 | <0.50 | <0.50 | 1 |
| 1,2,3- Trichlorobenzene | µg/L | | | N/A | N/A | <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 |
| Trichlorofluoromethane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,2,3- Trichloropropane | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,2,4- Trimethylbenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| 1,3,5- Trimethylbenzene | µg/L | | | N/A | N/A | <0.50 | <0.50 | 1 |
| Vinyl chloride | µg/L | ◆ | | 2 | 0 | <0.50 | <0.50 | 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 |
| Total Trihalomethane | µg/L | ◆ | | 80 | 80 | 4.12 | 4.12 | 1 |



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| Organic Chemicals (cont'd) | | | | | | | | |
| 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 |
| 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 |
| Carbofuran | µg/L | | | 40 | 40 | <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 |



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| Additional Parameters | | | | | | | | |
| Alkalinity (as CaCO ₃) | mg/L | | | N/A | N/A | 63 - 108 | 85 | 98 |
| Ammonia (as Nitrogen) | mg/L | | | N/A | N/A | 0.06 - 0.29 | 0.16 | 104 |
| Calcium Hardness (as CaCO ₃) | mg/L | | | N/A | N/A | 89 - 286 | 130 | 52 |
| Chlorine (Total Chloramine) | mg/L | ◆ | | 4 | 4 | 2.81 - 4.02 | 3.68 | 250 |
| Chloride | mg/L | | ◆ | 250 | N/A | 7.44 - 12.3 | 10.4 | 48 |
| Conductivity | µmho/cm | | ◆ | N/A | N/A | 281 - 498 | 421 | 249 |
| Fluoride | mg/L | ◆ | | 4, 2* | 4 | 0.30 - 0.76 | 0.70 | 359 |
| Total Hardness (as CaCO ₃) | mg/L | | | N/A | N/A | 104 - 210 | 171 | 52 |
| Nitrate (as Nitrogen) | mg/L | ◆ | | 10 | 10 | 0.28 | 0.28 | 1 |
| Nitrite (as Nitrogen) | mg/L | ◆ | | 1 | 1 | <0.05 | <0.05 | 1 |
| Total Nitrate and Nitrite (as Nitrogen) | mg/L | ◆ | | 10 | 10 | 0.28 | 0.28 | 1 |
| Ortho-Phosphate (as Phosphorous) | mg/L | | | N/A | N/A | <0.50 | <0.50 | 4 |
| pH | units | | ◆ | 6.5-8.5 | N/A | 7.16 - 7.93 | 7.51 | 249 |
| Total Dissolved Solids | mg/L | | ◆ | 500 | N/A | 182 - 495 | 292 | 52 |
| Sulfate | mg/L | | ◆ | 250 | N/A | 62.5 - 128 | 103 | 50 |
| Total Organic Carbon | mg/L | ◆ | | Removal | N/A | 1.62 - 2.21 | 1.9 | 12 |

Listed above are regulated and unregulated contaminants detected in Pueblo's drinking water in 2017.
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.

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.

*** There were 3 positive Total Coliform samples in 2017.

° Radiologicals analyzed in 2012.

Please contact the Board of Water Works Water Quality Laboratory for any information regarding water quality at (719) 584-0467. Hours are 8:00 am - 4:30 pm Monday through Friday.



Board of Water Works
of Pueblo, Colorado

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