

2020 Consumer Confidence Report Data BRISTOL WATERWORKS VILLAGE OF, PWS ID: 23000505

Water System Information

If you would like to know more about the information contained in this report, please contact Randy R Kerkman at (262) 857-2368.

Opportunity for input on decisions affecting your water quality

Village Board meets on the 2nd and 4th Monday of each Month 7:00 PM at the Village Hall 19801 83rd street.

Health Information

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 safe drinking water hotline (800-426-4791).

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 systems 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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

Source(s) of Water

| Source ID | Source | Depth (in feet) | Status |
|-----------|-------------|-----------------|--------|
| 1 | Groundwater | 1155 | Active |
| 2 | Groundwater | 55 | Active |

| Source ID | Source | Depth (in feet) | Status |
|-----------|-------------|-----------------|--------|
| 3 | Groundwater | 1505 | Active |

To obtain a summary of the source water assessment please contact, Randy R Kerkman at (262) 857-2368.

Educational Information

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.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which 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.
- 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. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Definitions

| Term | Definition |
|--------------------|---|
| AL | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Level 1 Assessment | A Level 1 assessment is a study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system. |
| Level 2 Assessment | A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine, if possible, why an E. coli MCL violation has |

| Term | Definition |
|-------------|--|
| | occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions. |
| 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. |
| 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. |
| MFL | million fibers per liter |
| 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. |
| MRDLG | Maximum residual disinfectant 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. |
| mrem/year | millirems per year (a measure of radiation absorbed by the body) |
| NTU | Nephelometric Turbidity Units |
| 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) |
| ppt | parts per trillion, or nanograms per liter |
| ppq | parts per quadrillion, or picograms per liter |
| TCR | Total Coliform Rule |
| TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water. If a contaminant was detected last year, it will appear in the following tables without a sample date. If the contaminant was not monitored last year, but was detected within the last 5 years, it will appear in the tables below along with the sample date.

Disinfection Byproducts

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|---|
| HAA5 (ppb) | D-4 | 60 | 60 | 4 | 4 | | No | By-product of drinking water chlorination |
| TTHM (ppb) | D-4 | 80 | 0 | 22.1 | 22.1 | | No | By-product of drinking water chlorination |

Inorganic Contaminants

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|------|-----|------|-------------|-----------------|--------------------------------|-----------|--|
| ARSENIC (ppb) | | 10 | n/a | 2 | 0 - 2 | | No | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| BARIUM (ppm) | | 2 | 2 | 0.074 | 0.021 - 0.074 | | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| FLUORIDE (ppm) | | 4 | 4 | 1.3 | 0.5 - 1.3 | | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| NICKEL (ppb) | | 100 | | 0.6300 | 0.0000 - 0.6300 | | No | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. |

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|------|-----|------|-------------|---------------|--------------------------------|-----------|-------------------------------|
| SODIUM (ppm) | | n/a | n/a | 25.00 | 15.00 - 25.00 | | No | n/a |

| Contaminant (units) | Action Level | MCLG | 90th Percentile Level Found | # of Results | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|---------------------|--------------|------|-----------------------------|--|--------------------------------|-----------|--|
| COPPER (ppm) | AL=1.3 | 1.3 | 0.5500 | 0 of 10 results were above the action level. | | No | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| LEAD (ppb) | AL=15 | 0 | 1.20 | 0 of 10 results were above the action level. | | No | Corrosion of household plumbing systems; Erosion of natural deposits |

Radioactive Contaminants

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|----------------------------------|------|-----|------|-------------|------------|--------------------------------|-----------|-------------------------------|
| GROSS ALPHA, EXCL. R & U (pCi/l) | | 15 | 0 | 11.2 | 2.4 - 11.2 | | No | Erosion of natural deposits |
| RADIUM, (226 + 228) (pCi/l) | | 5 | 0 | 4.8 | 0.6 - 4.8 | | No | Erosion of natural deposits |
| GROSS ALPHA, INCL. R & U (n/a) | | n/a | n/a | 11.5 | 0.0 - 11.5 | | No | Erosion of natural deposits |

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2020) | Violation | Typical Source of Contaminant |
|-------------------------|------|-----|------|-------------|-----------|--------------------------------|-----------|-------------------------------|
| COMBINED URANIUM (ug/l) | | 30 | 0 | 0.4 | 0.0 - 0.4 | | No | Erosion of natural deposits |

Additional Health Information

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. Bristol Waterworks Village Of 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 www.epa.gov/safewater/lead.

Water Production Division
O. Fred Nelson Water Plant
100 51st Place
Kenosha, WI 53140



Ryan Spackman, P.E.
Director of Water Production
(262) 653-4331
rspackman@kenosha.org

"Providing and Protecting Kenosha's Greatest Natural Resource . . . Water"

March 31, 2021

Mr. Randy Kerkman
Village Administrator
19801 83rd Street
Bristol, WI 53104

Subject: 2020 CCR Data for Wholesale Customers

Mr. Kerkman,

Enclosed you will find the water quality information for the 2020 Consumer Confidence Report (CCR). The information provided represents the most current test results for the year 2020.

Additional information required for consumer confidence reports:

- Source water: surface water from Lake Michigan.
- Cryptosporidium monitoring was conducted from October 2015 to September 2017. No oocysts were found in any of the 24 samples.

Please be advised that the Microbiological Results and Disinfection Results sections of this report are for the Kenosha Water Utility Distribution System and are provided as an informational item only. Your results will vary. If you have any questions or need additional information, please contact me at the number above.

Sincerely,

A handwritten signature in black ink that reads 'Ryan Spackman'.

Ryan Spackman, P.E.
Director of Water Production
Kenosha Water Utility

Kenosha Water Utility
2020 Drinking Water Quality Report
 (CCR Data for Wholesale Customers)

| Substance (Units) | MCL or (MRDL) | MCLG or (MRDLG) | Level Found | Range/ Comments | Year Test | Violation | Typical Source of Contaminant |
|--|-------------------------|-----------------|------------------------------------|-----------------|-----------|-----------|---|
| Microbiological Results † | | | | | | | |
| Total Coliform Bacteria (% positive) | < 5% of monthly samples | 0 | 0% | 0% | 2020 | No | Naturally present in the environment; E.coli is a type of coliform that is present in human and animal waste. |
| Disinfection Results † | | | | | | | |
| Free Chlorine (ppm) | { 4 } | { 4 } | 1.09 | 0.95 – 1.21 | 2020 | No | Drinking water disinfectant |
| Haloacetic Acids (ppb) | 60 | 0 | 13.9 | 9.3 – 19.7 | 2020 | No | By-product of drinking water chlorination |
| Tot. Trihalomethanes (ppb) | 80 | 0 | 28.2(avg) | 15.2 – 36.5 | 2020 | No | By-product of drinking water chlorination |
| Bromodichloromethane (ppb) | 80 | 0 | 9.7 | 6.1 – 12.0 | 2020 | No | By-product of drinking water chlorination |
| Bromoform (ppb) | 80 | 0 | ND | ND | 2020 | No | By-product of drinking water chlorination |
| Chloroform (ppb) | 80 | 0 | 14.3 (avg) | 5.9 – 20.0 | 2020 | No | By-product of drinking water chlorination |
| Dibromochloromethane (ppb) | 80 | 0 | 4.3 | 3.2 – 5.5 | 2020 | No | By-product of drinking water chlorination |
| † - Microbiological and Disinfection Results are for KWU's distribution system, provided as an informational item. These results are not applicable to other distribution systems. | | | | | | | |
| Cryptosporidium | TT | 0 | 0 | 0 | 2015-17 | No | Microbial parasite found in surface water throughout the USA |
| Regulated Inorganic Results | | | | | | | |
| Antimony (ppb) | 6 | 6 | ND | ND | 2020 | No | Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder |
| Arsenic (ppb) | 10 | 0 | 0.52 | 0.52 | 2020 | No | Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | 0.021 | 0.021 | 2020 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Beryllium (ppb) | 4 | 4 | ND | ND | 2020 | No | Discharge from metal refineries and coal burning factories; discharge from electrical, aerospace, and defense industries |
| Cadmium (ppb) | 5 | 5 | ND | ND | 2020 | No | Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints |
| Chromium (ppb) | 100 | 100 | ND | ND | 2020 | No | Erosion of natural deposits, Discharge from steel and pulp mills |
| Copper (ppm) | 1.3 (AL) | 1.3 | 0.17 (90 th percentile) | 0.002 – 0.43 | 2020 | No | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Cyanide (ppb) | 200 | 200 | ND | ND | 2020 | No | Discharge from steel/metal factories; discharge from plastic and fertilizer factories |
| Fluoride (ppm) | 4 | 4 | 0.73 (avg) | 0.67 – 0.79 | 2020 | No | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| Lead (ppb) | 15 (AL) | 0 | 7.80 (90 th percentile) | 0.62 – 11.0 | 2020 | No | Corrosion of household plumbing systems; erosion of natural deposits |
| Mercury (ppb) | 2 | 2 | ND | ND | 2020 | No | Erosion of natural deposits; Discharge from Refineries and factories; runoff from landfills and croplands |
| Nickel (ppb) | 100 | N/A | 0.8 | 0.8 | 2020 | No | Occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products |
| Nitrate as N (ppm) | 10 | 10 | 0.52 | 0.52 | 2020 | No | Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits |
| Selenium (ppb) | 50 | 50 | ND | ND | 2020 | No | Discharge from petroleum refineries; erosion of natural deposits; discharge from mines |
| Sodium (ppm) | N/A | N/A | 14 | 14 | 2020 | No | N/A |
| Thallium (ppb) | 2 | 0.5 | ND | ND | 2020 | No | Erosion of natural deposits; Leaching from ore processing sites |
| Regulated Synthetic Organic Results | | | | | | | |
| Atrazine (ppb) | 3 | 0 | 0.036 | 0.036 | 2020 | No | Herbicide – Agricultural Runoff |
| Dual (Metolachlor) (ppb) | N/A | 0 | 0.012 | 0.012 | 2020 | No | Herbicide – Agricultural Runoff |

Kenosha Water Utility
2020 Drinking Water Quality Report
 (CCR Data for Wholesale Customers)

| Substance (Units) | MCL or (MRDL) | MCLG or (MRDLG) | Level Found | Range/ Comments | Year Test | Violation | Typical Source of Contaminant |
|---|---------------|-----------------|-------------|-----------------|-----------|-----------|---|
| Radioactivity Results | | | | | | | |
| Radioactivity, Gross Alpha (pCi/L) | 15 | 0 | ND | ND | 2020 | No | Erosion of natural deposits |
| Radium 226 (pCi/L) | 5 | 0 | ND | ND | 2020 | No | Erosion of natural deposits |
| Radium 228 (pCi/L) | 5 | 0 | ND | ND | 2020 | No | Erosion of natural deposits |
| Uranium (ppb) | 30 | 0 | 0.33 | 0.33 | 2020 | No | Erosion of natural deposits |
| Unregulated Contaminant Monitoring Program | | | | | | | |
| UCMR-4 | | | | | | | |
| 10 Cyanotoxins | N/A | N/A | ND | ND | 2018 | N/A | Freshwater Cyanobacterial (Blue-Green Algae) Blooms |
| Germanium (ppb) | N/A | N/A | ND | ND | 2019 | N/A | Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber optics, electronics and solar applications. |
| Manganese (ppb) | N/A | N/A | 0.67 | ND - 0.67 | 2019 | N/A | Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical. |
| 8 Pesticides | N/A | N/A | ND | ND | 2019 | N/A | Agricultural/Residential Run-off (includes insecticides, herbicides and fungicides.) |
| 1 Pesticide Byproduct (ppb) | N/A | N/A | ND | ND | 2019 | N/A | Agricultural Run-off |
| 3 Alcohols (ppb) | N/A | N/A | ND | ND | 2019 | N/A | Solvents, food additives, production of flavorings, consumer products such as synthetic cosmetics, perfumes, fragrances, hair preparations, and skin lotions. |
| 3 Semi-Volatile Organic Compounds (ppb) | N/A | N/A | ND | ND | 2019 | N/A | Food additives (antioxidants), production of dyes, rubber, pharmaceuticals and pesticides. Used as pharmaceuticals, flavoring agents. Component of coal. Produced as chemical intermediates. |
| Total Organic Carbon (TOC) (ppb) | N/A | N/A | 1850 (avg) | 1700 - 2000 | 2019 | N/A | N/A |
| Bromide (ppb) | N/A | N/A | 34.5 (avg) | 33 - 36 | 2019 | N/A | Occurs naturally in the environment in low levels. Concentrated sources include wastewater discharges from fossil fuel production and coal fired power plants, mining operations, and pesticides. |
| Dichloroacetic acid (DCAA) (ppb) | N/A | N/A | 7.4 (avg) | 5.7 - 9.5 | 2019 | N/A | By-product of drinking water chlorination |
| Monochloroacetic acid (MCAA) (ppb) | N/A | N/A | ND | ND | 2019 | N/A | By-product of drinking water chlorination |
| Trichloroacetic acid (TCAA) (ppb) | N/A | N/A | 6.9 (avg) | 5.5 - 7.9 | 2019 | N/A | By-product of drinking water chlorination |
| Bromochloroacetic acid (BCAA) (ppb) | N/A | N/A | 3.7 (avg) | 3.2 - 4.2 | 2019 | N/A | By-product of drinking water chlorination |
| Bromodichloroacetic acid (BDCAA) (ppb) | N/A | N/A | 5.3 (avg) | 4.4 - 6.4 | 2019 | N/A | By-product of drinking water chlorination |
| Chlorodibromoacetic acid (CDBAA) (ppb) | N/A | N/A | 1.3 (avg) | 1.1 - 1.6 | 2019 | N/A | By-product of drinking water chlorination |
| Tribromoacetic acid (TBAA) (ppb) | N/A | N/A | ND | ND | 2019 | N/A | By-product of drinking water chlorination |
| Monobromoacetic acid (MBAA) (ppb) | N/A | N/A | 0.54 (avg) | 0.42 - 0.65 | 2019 | N/A | By-product of drinking water chlorination |
| Dibromoacetic acid (DBAA) (ppb) | N/A | N/A | 0.74 (avg) | 0.67 - 0.80 | 2019 | N/A | By-product of drinking water chlorination |

Kenosha Water Utility
2020 Drinking Water Quality Report
 (CCR Data for Wholesale Customers)

| Substance (Units) | MCL or (MRDL) | MCLG or (MRDLG) | Level Found | Range/ Comments | Year Test | Violation | Typical Source of Contaminant |
|-----------------------------------|---------------|-----------------|-------------|--------------------|-----------|-----------|--|
| Other Monitored Parameters | | | | | | | |
| Sulfate (ppm) | N/A | N/A | 26 | 26 | 2020 | N/A | N/A |
| Ortho-phosphate (ppm) | N/A | N/A | 0.89 (avg) | 0.82 – 0.98 | 2020 | N/A | Water additive to reduce corrosion of household plumbing systems |
| Total Organic Carbon (ppm) | TT | N/A | 1.7 | 1.5 – 2.1 | 2020 | N/A | N/A |
| Turbidity (NTU) | < 0.30 | N/A | 0.037 (avg) | 0.018 – 0.066 | 2020 | No | Erosion of natural deposits |
| Alkalinity (ppm) | N/A | N/A | 102 (avg) | 96 – 109 | 2020 | N/A | N/A |
| Conductivity (µS/cm) | N/A | N/A | 308 (avg) | 286 – 349 | 2020 | N/A | N/A |
| Total Hardness (ppm) | N/A | N/A | 137 (avg) | 132 – 146 | 2020 | N/A | N/A |
| Temperature (°F) | N/A | N/A | 47.6 (avg) | 33.8 – 69.8 | 2020 | N/A | N/A |
| pH (pH Units) | N/A | N/A | 7.69 (avg) | 7.53 – 7.89 | 2020 | N/A | N/A |

DEFINITIONS

AL: Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Action levels are reported at the 90th percentile from homes at greatest risk.

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.

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.

(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.

(MRDLG): Maximum Residual Disinfectant 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 contamination.

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

Abbreviations:

- avg: average
- N/A: Not Applicable
- ND: Not Detected
- pCi/L: picocuries per liter
- NTU: Nephelometric Turbidity Units
- ppb: parts per billion (µg/L)
- ppm: parts per million (mg/L)
- µS/cm: microsiemens per centimeter