

WATER UTILITY

The U.S. Environmental Protection Agency (EPA) requires drinking water utilities to provide an annual Consumer Confidence Report to help consumers understand where their drinking water comes from, so they can make informed decisions about their health and protection of the environment.

The Brown Deer Water Utility purchases all its water from the Milwaukee Water Works. Milwaukee water complies with all state and federal drinking water standards. The Milwaukee Water Works is known for its extensive water quality monitoring program that reaches beyond basic requirements. The program includes organisms and contaminants, or substances, that are not yet regulated but considered of emerging concern and/or are under study for possible effects on public health.

In this report, you will find:

- Information about the source of your drinking water
- Results of water quality testing and compliance with water quality laws and standards
- Additional educational information

Visit <http://www.browndeerwi.org/departments/water-utility/> and <http://city.milwaukee.gov/water> for more information.

Highlights

- Primary Drinking Water Standards
- Secondary Water Standards
- Unregulated Contaminants
- *Cryptosporidium*
- Lead and Copper Rule



Important Information

This report contains important information about your drinking water. Have someone translate it for you or talk to someone who understands it.

Información Importante

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien.

Lug tseem ceeb rua cov siv dlej kws has lug Moob

Ntawm nuav yog cov lug tseem ceeb qha txug kev haus dlej nyob nroog Milwaukee. Yog mej nyeem tsi tau cov lug nuav, thov lwm tug txhais rua mej.

Water System Information

The Village of Brown Deer-owned public utility provides clean, safe water to all residents of the Village of Brown Deer. The population of Brown Deer is approximately 12,000, with a total land area of 4.5 square miles. To serve this customer base, the Utility manages and operates 67.6 miles of water main, 680 hydrants, and 916 distribution system valves. The Utility also owns a 2 million-gallon standpipe, which supplies water storage and pressure to the system. The average daily consumption in 2022 was approximately 1.24 million gallons per day (MGD).

For more system information, or questions about this report, please call Tom Nennig, Utility Superintendent, at the Brown Deer Water Utility, 414-371-3082.

Participate in decisions regarding your water

Participate in decisions that affect drinking water quality at meetings of the Village of Brown Deer Water Commission or the Brown Deer Village Board. These committees meet at the Brown Deer DPW Facility, 8950 N. Arbon Drive, Brown Deer, WI 53223. The dates for Water Commission and Village Board meetings vary. Please contact the Brown Deer Water Utility for a schedule at (414-371-3080) or visit the Village website at <http://www.browndeerwi.org/>.

Source of Water

The Brown Deer Water Public Utility is a consecutive system of the Milwaukee Water Works. All water sold by the Brown Deer Water Utility is purchased from the Milwaukee Water Works. The Milwaukee Water Works water source is surface water from Lake Michigan.

For more information on the Milwaukee Water Works source water and treatment process, visit the Milwaukee Water Works website at <https://city.milwaukee.gov/water/WaterQuality>.

As water flows through rivers and lakes and over land surfaces, naturally occurring substances may be dissolved in the water that reaches Lake Michigan. These substances are referred to as contaminants. Surface water sources may be highly susceptible to contaminants. Surface water is also affected by animal and human activities. Contaminants that may be present in source water include microbial contaminants such as viruses, protozoa and bacteria; inorganic contaminants such as salts and metals, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants.

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 the 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.

Detected Contaminants or Substances

The tables on the following pages show the regulated contaminants, or substances, detected in Milwaukee's drinking water and Brown Deer's distribution system during 2022. It also includes all contaminants tested for in the most recent (2018) Unregulated Contaminant Monitoring Rule – Phase 4 (UCMR4) mandatory monitoring program. **All contaminant levels are within applicable state and federal laws.** The tables contain the name of each contaminant, the highest level regulated (Maximum Contaminant Level, or MCL), the ideal goals for public health (Maximum Contaminant Level Goal, or MCLG), the average value detected, the usual sources of such contamination, possible health effects, and footnotes explaining the findings and units of measurement. The presence of a substance in drinking water does not necessarily indicate the water poses a health risk. Certain quantities of some substances are essential to good health, but excessive quantities can be hazardous.

| Definitions | |
|--------------------------|---|
| < | "less than" or not detected |
| Action Level (AL) | Action level: the concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90 th percentile for homes at greatest risk. |
| Haloacetic Acids | HAA5: Monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, dibromoacetic acid, tribromoacetic acid, bromochloroacetic acid, dibromochloroacetic acid, and bromodichloroacetic acid. |
| HA | Health Advisory: An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a Health Advisory is not a legally enforceable federal standard, but serves as technical guidance to assist federal, state and local officials. |
| Median | The middle value of the entire data set for the parameter (range from high to low) |
| ug/L | Microgram per liter or parts per billion |
| MCL | Maximum Contaminant Level: The highest level of a contaminant 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 contaminants |
| mg/L | Milligram per liter or parts per million |
| NA | Not Applicable |
| ND | Not Detected |
| NR | Not Regulated |
| NTU | Nephelometric Turbidity Unit: A unit to measure turbidity. |
| pCi/L | Picocuries per Liter: A measure of radioactivity. |
| RAA | Running Annual Average: The average of four quarterly samples collected in one 12-month period. |
| TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water |
| Trihalomethanes | TTHMs: Chloroform, bromodichloromethane, dibromochloromethane, and bromoform |
| Turbidity | Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. |

Information for those with compromised immune systems and/or vulnerable populations

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), and the CDC at cdc.gov/parasites/cypto.

Primary Drinking Water Standards

The EPA has set National Primary Drinking Water Regulations that set water quality standards for contaminants, or substances, in public drinking water. These standards are referred to as maximum contaminant levels (MCLs), which are established to protect public health, and are legally enforceable above the allowed MCL. For information on EPA ground and drinking water primary standards, visit: <http://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>.

Note: any substance marked with an asterisk (*) contains data from the Brown Deer Water Utility testing programs.

| Primary Substances Detected | Ideal Goals (MCLG) | Highest Level Allowed (MCL) | Average | Range | Meets Standard | Typical Source of Substance |
|--|--------------------|-----------------------------|---------|--------------------|----------------|---|
| Antimony (ppb) Not detected in 2022 | 6 | 6 | 0.2 | 0.2 | Yes | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder |
| Atrazine (ppb) Not detected in 2022 | 3 | 3 | 0.1 | < 0 - 0.10 | Yes | Herbicide (result from 8/12/2020, undetected in 2021) |
| Barium (ppm) | 2 | 2 | 0.02 | 0.02 | Yes | Drilling waste discharge; metal refineries |
| Bromate (ppb) | 0 | 10 RAA | 0.46 | 0 – 2.7 | Yes | By-product of drinking water disinfection |
| Chlorine, Total (ppm)* | 4 | 4 (MRDL) | 0.81 | 0.12 – 1.60 | Yes | Water additive used to control microbes |
| Chlorite (ppm) | 0.8 | 1 | 0.00 | 0 – 0.004 | Yes | By-product of drinking water disinfection |
| Chromium, Total (ppb) | 100 | 100 | 2.3 | 1 – 3.6 | Yes | Natural deposits and manufacturing |
| Fluoride (ppm) | 4.0 | 4.0 | 0.67 | 0.29 – 0.72 | Yes | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Heterotrophic plate count | NA | TT | Met | Met standard | Yes | Naturally present in the environment; |
| Monochloramine (ppm) | 4.0 | 4.0 | 1.47 | 0.53 – 1.73 | Yes | Disinfection of drinking water |
| Nitrate, as N (ppm) | 10 | 10 | 0.27 | 0.22 – 0.33 | Yes | Runoff from fertilizer use; leeching from septic tanks sewage; erosion of natural deposits |
| Radionuclides (3/24/2020) Note: Radionuclides were last monitored in 2020 in accordance with regulations. | | | | | | |
| Gross alpha (pCi/L) [excluding Ra and U] | 0 | 15 | 0.7 | 0.5 - 0.7 | Yes | Erosion of natural deposits |
| Gross alpha (pCi/L) | 0 | 15 | 0.9 | 0.7 - 0.9 | Yes | Erosion of natural deposits |
| Gross beta (pCi/L) | 0 | 50 | 1.6 | -1.7 - 1.6 | Yes | Decay of natural and manmade deposits |
| Radium (pCi/L) | 0 | 5 | 0.9 | 0.7 - 0.9 | Yes | Erosion of natural deposits |
| Combined Uranium (ug/L) | 0 | 30 | 0.3 | 0.3 | Yes | Erosion of natural deposits |
| Total Haloacetic Acids 5 [HHA5] (ppb)* | N/A | 60 | 3.66 | 2.30 – 5.40 | Yes | Byproduct of drinking water disinfection |
| Total Trihalomethanes [TTHM] (ppb)* | NA | 80 | 9.86 | 5.2 – 17.0 | Yes | Byproduct of drinking water disinfection |
| Turbidity (NTU) | NA | < 0.300 95% of time | 0.01 | 0.07 1-day maximum | Yes | Soil runoff |

Secondary Drinking Water Standards

The EPA has also established National Secondary Drinking Water Regulations that set non-mandatory standards for potential water-quality substances. These secondary substances are not currently considered a risk to human health, but instead, act as guidelines for drinking water aesthetics such as taste, odor, and color. Public Health Groundwater Standards and Health Advisory Levels are levels at which concentrations of the contaminant present a health risk. The following table lists contaminants which were detected in your water and that have either a Public Health Groundwater Standard (PHGS), Health Advisory Level (HAL), or a Secondary Maximum Contaminant Level (SMCL), or both. For more information on EPA secondary standards, visit: <https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>.

| Contaminant or Substance | SMCL | PHGS or HAL | Average | Range | Meets Standard | Typical Sources of Substance |
|------------------------------|-----------|-------------|---------|-------------|----------------|--|
| Aluminum (ppm) | 0.05 | 0.20 | 0.11 | 0.11 | Yes | Water treatment additive; natural deposits |
| Chloride (ppm) | 250 | | 15.5 | 15 - 16 | Yes | Natural deposits and road salts |
| Manganese (ppb) | 50 | | 1.3 | 0 – 2.6 | Yes | Naturally occurring and manufacturing |
| Odor | 3 | | 1.0 | 1.0 | Yes | Naturally present in the environment |
| pH (-log [H ₊]) | 6.5 - 8.5 | | 7.7 | 7.61 – 7.79 | Yes | Naturally present in the environment |
| Sulfate (ppm) | 250 | | 27.0 | 26 - 28 | Yes | Natural deposits |
| Total Dissolved Solids (ppm) | 500 | | 170 | 200 - 220 | Yes | Aggregate of dissolved minerals |

Notice to Parents of Infants Six Months of Age or Younger

According to the CDC, the proper amount of fluoride, from infancy and at all ages throughout life, helps prevent and control tooth decay (cavities). Therefore, the Milwaukee Water Works, following public health recommendations, maintains a level of fluoride in our drinking water that is both safe and effective. The following is an advisory regarding fluoride and young infants:

The American Academy of Pediatrics recommends exclusive breastfeeding for the first six months of a child's life, followed by continued breastfeeding as complementary foods are introduced, for optimal short- and long-term health advantages. Go to <http://pediatrics.aappublications.org/content/129/3/e827> for more information.

As of August 31, 2012, Brown Deer water is fluoridated at a level not to exceed 0.7 mg/L. According to the CDC, for infants up to six months of age, if tap water is fluoridated or has substantial natural fluoride (0.7 mg/L or higher) and is being used to dilute infant formula, a parent may consider using a low-fluoride alternative water source. Bottled water known to be low in fluoride is labeled as purified, deionized, demineralized, distilled, or prepared by reverse osmosis. Ready-to-feed (no-mix) infant formula typically has little fluoride and may be preferable at least some of the time. If breastfeeding is not possible, parents should consult a pediatrician about an appropriate infant formula option. Parents should be aware that there may be an increased chance of mild dental fluorosis if the child is exclusively consuming infant formula reconstituted with fluoridated water. Dental fluorosis is a term that covers a range of visible changes to the enamel surface of the tooth. For more information on dental fluorosis and the use of fluoridated drinking water in infant formula, go to <http://www.cdc.gov/fluoridation>.

Unregulated Contaminants Monitoring Rule – Phase 4

The Unregulated Contaminant Monitoring Rule (UCMR) was established by the EPA as part of the Safe Drinking Water Act of 1996. Every five years, in compliance with the EPA, Brown Deer Water Utility collects data on potential contaminants that are not yet regulated but are known, or anticipated, to occur in public water systems. This data help the EPA determine if future regulations are needed for contaminants of concern. Learn more at <http://www.epa.gov/dwucmr>.

Note: Single sample is reported as Highest Level Detected. Any substance marked with an asterisk (*) contains data from the Brown Deer Water Utility testing programs.

| UCMR-4 Assessment Monitoring (2018) | Average | Highest Level Detected | Source of Contaminants |
|-------------------------------------|---------|------------------------|--|
| alpha-Hexachlorocyclohexane (ppb)* | < 0.010 | < 0.010 | Pesticide |
| 1-Butanol (ppb)* | < 2.00 | < 2.00 | Solvent, food additive |
| Butylated hydroxyanisole (ppb)* | < 0.030 | < 0.030 | Food additive (antioxidant) |
| Chlorpyrifos (ppb)* | < 0.030 | < 0.030 | Organophosphate, insecticide, acaricide, miticide |
| Dimethipin (ppb)* | < 0.200 | < 0.200 | Herbicide and plant growth regulator |
| Ethoprop (ppb)* | < 0.030 | < 0.030 | Insecticide |
| Germanium (ppb)* | < 0.300 | < 0.300 | Naturally occurring element |
| Manganese (ppb)* | 0.903 | 1.215 | Naturally occurring element |
| 2-Methoxyethanol (ppb)* | < 0.400 | < 0.400 | Synthetic cosmetics, perfumes, fragrances, hair preparations, skin lotions |
| o-Toluidine (ppb)* | < 0.007 | < 0.007 | Dyes, rubber, pharmaceuticals, pesticide |
| Oxyfluorfen (ppb)* | < 0.050 | < 0.050 | Herbicide |
| Permethrin cis & trans (ppb)* | < 0.040 | < 0.040 | Insecticide |
| Profenofos (ppb)* | < 0.300 | < 0.300 | Insecticide and acaricide |
| 2-Propen-1-ol (ppb)* | < 0.500 | < 0.500 | Flavorings, perfumes |
| Quinoline (ppb)* | < 0.020 | < 0.020 | Anti-malarial pharmaceutical, flavoring agent |
| Tebuconazole (ppb)* | < 0.200 | < 0.200 | Fungicide |
| Tribufos (ppb)* | < 0.070 | < 0.070 | Insecticide, cotton defoliant |

| UCMR-4 Assessment Monitoring of Cyanotoxins (2018) | Average | Highest Level Detected | Source of Contaminants |
|--|---------|------------------------|------------------------|
| Anatoxin-a (ppt)* | < 30 | < 30 | Source water |
| Cylindrospermopsin (ppt)* | < 90 | < 90 | Source water |
| Total Microcystins & Nodularins (ppb)* | < 0.300 | < 0.300 | Source water |

| UCMR-4 Assessment Monitoring of Surface Water Indicators (2018) | Average | Highest Level Detected | Source of Contaminants |
|---|---------|------------------------|------------------------|
| Bromide (ppb) | 30.3 | 35.3 | Source water |
| Total Organic Carbon [TOC] (ppm) | 1.84 | 2.04 | Source water |

Unregulated Contaminants Monitoring Rule – Phase 4 (continued)

| UCMR-4 Assessment Monitoring of Distribution Water (2018) | Average | Highest Level Detected | Source of Contaminants |
|---|---------|------------------------|--|
| Bromochloroacetic acid [BCAA] (ug/L)* | 1.374 | 3.20 | Byproduct of drinking water disinfection |
| Bromodichloroacetic acid [BDCAA] (ug/L)* | 0.826 | 1.10 | Byproduct of drinking water disinfection |
| Chlorodibromoacetic acid [CDBAA] (ug/L)* | 0.334 | 0.55 | Byproduct of drinking water disinfection |
| Dibromoacetic acid [DBAA] (ug/L)* | 0.391 | 0.53 | Byproduct of drinking water disinfection |
| Dichloroacetic acid [DCAA] (ug/L)* | 1.654 | 2.70 | Byproduct of drinking water disinfection |
| Monobromoacetic acid [MBAA] (ug/L)* | 0.167 | 0.53 | Byproduct of drinking water disinfection |
| Monochloroacetic acid [MCAA] (ug/L)* | < 2.00 | < 2.00 | Byproduct of drinking water disinfection |
| Tribromoacetic acid [TBAA] (ug/L)* | < 2.00 | < 2.00 | Byproduct of drinking water disinfection |
| Trichloroacetic acid [TCAA] (ug/L)* | 0.980 | 1.30 | Byproduct of drinking water disinfection |
| HAA5 Total (ug/L)* | 3.198 | 4.989 | Byproduct of drinking water disinfection |
| HAA6 Br Total (ug/L)* | 3.097 | 5.603 | Byproduct of drinking water disinfection |
| HAA9 Total (ug/L)* | 5.737 | 8.503 | Byproduct of drinking water disinfection |

Compliance with Other Drinking Water Regulations

In compliance with state and local authorities, the Brown Deer Water Utility is required to report any deficiencies that may have occurred during 2022, any adverse health effects associated with the deficiency, and the steps taken to correct the deficiency. Because the Brown Deer Water Utility is a consecutive system to the Milwaukee Water Works, the Utility is also required to report any violations by Milwaukee Water Works.

The Brown Deer Water Utility had one reporting violation in 2022.

Description – On May 12, 2022, Brown Deer Water Utility was notified of a failure to submit the Monthly Operating Report for April.

Adverse Health Impacts – There were no adverse health impacts, as the violation was a reporting requirement only.

Action Taken – Brown Deer Water Utility submitted the April Monthly Operating report on May 13, 2022.

Milwaukee Water Works had zero deficiencies in 2022.

Other Monitored Substances

Milwaukee Water Works measures hundreds of substances that are not regulated by local, state, or federal regulations. When any substance is detected, it is reported. These substances have no regulatory or contaminant level guidelines. Therefore, this data are presented as a range of values detected. A complete list of all undetected contaminants or substances tested for can be found at <https://Milwaukee.gov/water/WaterQuality>.

Note: Any substance marked with an asterisk (*) contains data from the Brown Deer Water Utility testing programs.

| Other Substance Detected | Range or Highest Value Detected | Typical Source of Substance |
|--|---------------------------------|--|
| 1,1,1-Trichloro-2-propanone (ppb) | 0 – 1.8 | Byproduct of drinking water disinfection |
| 1,1-Dichloro-2-propanone | 0 – 1.3 | Byproduct of drinking water disinfection |
| Ammonia, as N (ppm) | 0.053 – 0.31 | Disinfection with chloramines; wastes; fertilizers and natural processes |
| Boron (ppb) | 23 – 26 | Naturally occurring; borax mining and refining; boric acid manufacturing |
| Bromochloroacetic acid (ppb) | 0 – 1.4 | Byproduct of drinking water disinfection |
| Bromochloroacetonitrile (ppb) | 0 – 0.48 | Byproduct of drinking water disinfection |
| Bromodichloroacetic acid (ppb) | 0 – 1.8 | Byproduct of drinking water disinfection |
| Calcium (ppm) | 33 – 34 | Naturally occurring |
| Chlorate (ppm) | 0.16 – 0.18 | Byproduct of drinking water disinfection |
| Chlorodibromoacetic acid (ppb) | 0 – 1.5 | Byproduct of drinking water disinfection |
| Chloropicrin (ppb) | 0 – 0.86 | Fungicide, herbicide, insecticide and nematicide |
| Chromium, hexavalent (ppb) | 0.11 – 0.19 | Natural deposits and manufacturing |
| Dibromoacetonitrile (ppb) | 0 – 1.0 | Byproduct of drinking water disinfection |
| Dichloroacetonitrile (ppb) | 0 – 0.63 | Byproduct of drinking water disinfection |
| Erucylamide (ppb) | 0 – 4.8 | Naturally occurring |
| Formaldehyde (ppb) | 0 – 5.0 | Byproduct of drinking water disinfection |
| Glyoxal (ppb) | 0 – 6.2 | Byproduct of drinking water disinfection |
| Lithium (ppb) | 2.3 – 2.4 | Naturally occurring |
| Magnesium (ppm) | 12 | Naturally occurring |
| Nitrosamines (ppt) | 0 – 2.3 | Byproduct of drinking water disinfection |
| Ortho-phosphate (ppm) | 1.32 – 2.10 | Food grade additive to prevent corrosion |
| Perchlorate (ppb) | 0.14 – 0.15 | Naturally occurring and found as an impurity in hypochlorite solutions used for drinking water treatment |
| Phenol, p-tert-butyl- (ppb) | 1.0 | Manufacturing and consumer products |
| Potassium (ppm) | 1.5 | Naturally occurring |
| Rubidium (ppb) | 1.1 – 1.2 | Naturally occurring |
| Total Silica (ppm) | 2.0 – 2.1 | Naturally occurring |
| Sodium (ppm) | 9.9 – 10.0 | Natural deposits and road salt |
| Strontium (ppb) | 120 | Natural deposits |
| Sucralose (ppt) | 0.06 – 0.07 | Artificial sweetener |
| Total Organic Carbon (ppm) | 1.41 – 1.75 | Naturally present in the environment |

PFAS

Starting at the end of 2022, large water utilities in Wisconsin are now required to sample for two PFAS compounds (PFOA and PFOS) in order to comply with a new standard of 70 ppt. Milwaukee Water Works (MWW) has been testing drinking water for several PFAS compounds since 2008. In 2022, MWW tested for 3 PFAS compounds and detected one. In 2022, the Brown Deer Water Utility also performed voluntary testing for 19 PFAS compounds and also detected one. The results are shown in the table below.

PFAS are found in hundreds of consumer products such as fast-food wrappers, the lining of disposable coffee cups, waterproofing products, and many types of stain resistant coatings used in textile manufacturing. PFAS is also found in fire-fighting foam commonly used at airports and can find its way into ground water and surface water through an airport's stormwater drainage system that flushes water away from paved surfaces into surrounding creeks and streams which may feed into larger bodies of water.

Note: Any substance marked with an asterisk (*) contains data from the Brown Deer Water Utility testing programs.

| Primary Substances Detected | Range or Highest Value Detected |
|--|---------------------------------|
| Perfluorobutanoic acid [PFBA] (ppt) | 2.4 – 3.4 |
| Perfluorooctanesulfonic acid [PFOS]* (ppt) | 1.74 – 1.76 |
| Perfluorooctanoic acid [PFOA]* (ppt) | Not Detected |

Lead & Copper Rule Compliance Results for 2020

In 2020, in compliance with the US EPA and Wisconsin DNR, the Brown Deer Water Utility tested 30 tier 1 or 2 sites for lead and copper. In order to remain in compliance with EPA regulations, 90th percentile levels must be below 15 µg/L (ppb) for lead and 1300 µg/L (ppb) for copper. For more information on the EPA Lead Copper Rule, visit <http://www.epa.gov/dwreginfo/lead-and-copper-rule>.

Note: Any substance marked with an asterisk (*) contains data from the Brown Deer Water Utility testing programs.

| Lead and Copper (2020) | Action Level | 90th Percentile | Highest Detected | Sites Exceeding Action Level | Violation | Source(s) of Contaminant |
|------------------------|--------------|-----------------|------------------|------------------------------|-----------|--|
| Copper (µg/L)* | 1300 | 65 | 100 | 0 | NO | Corrosion of household plumbing systems; Erosion of natural deposits, Leaching from wood preservatives |
| Lead (µg/L)* | 15.0 | 0.71 | 2.9 | 0 | NO | Corrosion of household plumbing systems; Erosion of natural deposits |

Lead is not found in Brown Deer's source water, Lake Michigan, and it is not found in our treated drinking water. Lead may enter drinking water at a house or building if it dissolves from materials and components associated with service lines and home plumbing, especially when water stands unused for several hours. To prevent lead from dissolving into the water, Milwaukee Water Works add phosphate that forms a protective coating inside pipes. This corrosion control protection has been provided by Milwaukee Water since 1996 to meet EPA standards.

Brown Deer has **NO** lead water mains and **NO** lead service lines. Lead may be found in home plumbing – in some solder used with older copper plumbing (before 1987) and in faucets and fittings of brass which contain some lead (prior to 2014). If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The Brown Deer Water Utility 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.