

2017 Annual Consumer Report

Quality of Tap Water



**South Milwaukee Water Utility's
drinking water meets or surpasses
all federal and state drinking water standards.**

This is an annual report on the quality of water delivered by South Milwaukee Water Utility. It meets the federal Safe Drinking Water Act (SDWA) requirement for “Consumer Confidence Reports” and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is vital to our community. Please read this report carefully and, if you have questions, call the numbers listed below:

Providing this annual water quality report to our customers is an important part of our ongoing water quality efforts. If you have any questions about the Utility or this report, please call the Utility office at (414) 768-8070 or visit our web site at www.smwi.org. Regular monthly meetings of the Water/Wastewater Commission also provide opportunities for public participation and additional information. These meetings are scheduled on the second Monday of the month at 6:00 pm. Odd months at Water Utility (100 Marshall Ave.) Even months at Waste Water Treatment Plant (3003 5th Ave.)

Douglas Fischer, Superintendent
South Milwaukee Water Utility

Water Source

South Milwaukee Water Utility is supplied by surface water from Lake Michigan.

Treatment Process

South Milwaukee Water Utility uses an ultra-filtration pressurized membrane system. The membrane technology provides a verifiable barrier against viruses, turbidity, suspended solids, and pathogen contamination such as cryptosporidium of the City’s drinking water supply.

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 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 storm 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, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, 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 must provide the same protection for public health.



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 is 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 system 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 are available from the Safe Drinking Water Hotline (800-426-4791).

Definition of Terms

| Term | Definition | | |
|-------|--|-------|--|
| AL | Action Level | pCi/l | picocuries per liter (a measure of radioactivity) |
| MCL | Maximum Contaminant Level | ppm | parts per million, or milligrams per liter (mg/l) |
| MCLG | Maximum Contaminant Level Goal | ppb | parts per billion, or micrograms per liter (ug/l) |
| MFL | million fibers per liter | ppt | parts per trillion, or nanograms per liter |
| MRDL | Maximum residual disinfectant level | ppq | parts per quadrillion, or picograms per liter |
| MRDLG | Maximum residual disinfectant level goal | TCR | Total Coliform Rule |
| NTU | Nephelometric Turbidity Units | TT | Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. |

An Explanation of the Water-Quality Data Table

The chart in this report provides representative analytical results of water samples collected in 2017, unless otherwise dated, from our system. Please note the following definitions:

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

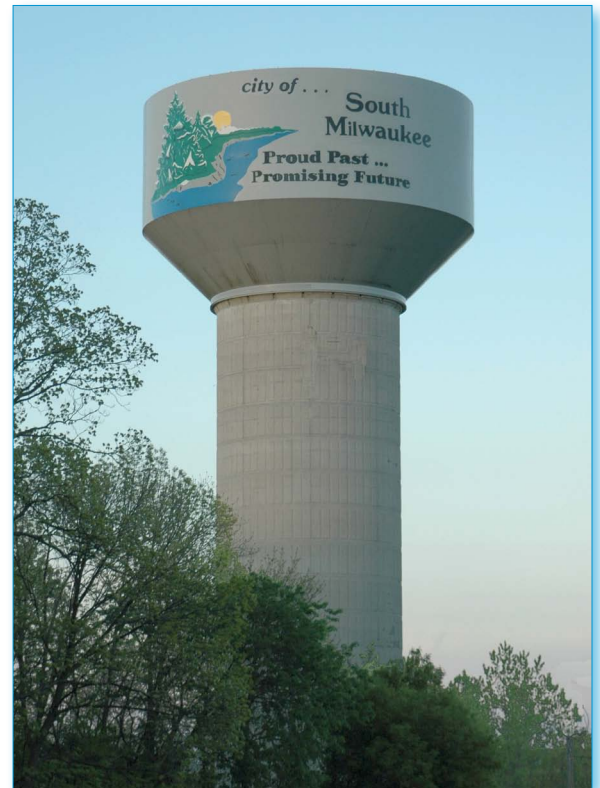
Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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.

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2017) | Violation | Typical Source of Contaminant |
|--------------------------------------|------|--------|------|-------------|------------------------|-----------------------------------|-----------|--|
| Disinfection Byproducts | | | | | | | | |
| HAA5 (ppb) | 304 | 60 | 60 | 29 | 18 – 29 | | NO | By-product of drinking water chlorination |
| TTHM (ppb) | 304 | 80 | 0 | 57.6 | 37.7 – 74.6 | | NO | By-product of drinking water chlorination |
| HAA5 (ppb) | 307 | 60 | 60 | 33 | 20 – 41 | | NO | By-product of drinking water chlorination |
| TTHM (ppb) | 307 | 80 | 0 | 42.3 | 35.5 – 61.1 | | NO | By-product of drinking water chlorination |
| HAA5 (ppb) | 402 | 60 | 60 | 32 | 19 – 45 | | NO | By-product of drinking water chlorination |
| TTHM (ppb) | 402 | 80 | 0 | 49.4 | 36.4 – 67.3 | | NO | By-product of drinking water chlorination |
| HAA5 (ppb) | 407 | 60 | 60 | 40 | 22 – 51 | | NO | By-product of drinking water chlorination |
| TTHM (ppb) | 407 | 80 | 0 | 54.2 | 44.7 – 74.6 | | NO | By-product of drinking water chlorination |
| Inorganic Contaminants | | | | | | | | |
| ANTIMONY TOTAL (ppb) | | 6 | 6 | 0.2 | 0.2 | | NO | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder |
| ARSENIC | | 10 | n/a | 1 | 1 | | NO | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| BARIUM (ppm) | | 2 | 2 | .022 | .022 | | NO | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| COPPER (ppm) | | AL=1.3 | 1.3 | 0.13 | 0 of 30 + action level | | NO | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| CYANIDE (ppb) | | 200 | 200 | 5 | 5 | | NO | Discharge from steel/metal factories; Discharge from plastic and fertilizer factories |
| FLUORIDE (ppm) | | 4 | 4 | 0.8 | 0.8 | | NO | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| LEAD (ppb) | | AL=15 | 0 | 9.1 | 1 of 30 + action level | | * | Corrosion of household plumbing systems; Erosion of natural deposits |
| NICKEL (ppb) | | 100 | | 0.78 | 0.78 | | NO | Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. |
| NITRATE (NO3-N) (ppm) | | 10 | 10 | 0.49 | 0.49 | | NO | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| MERCURY | | 2 | 2 | 0.1 | 0.1 | | NO | Erosion of natural deposits, discharge from refineries and factories, runoff from landfills, runoff from cropland. |
| SODIUM (ppm) | | n/a | n/a | 15.00 | 15.00 | | NO | n/a |
| Radioactive Contaminants | | | | | | | | |
| COMBINED URANIUM (ug/l) | | 5 | 0 | 1.4 | 1.4 | 4/7/2014 | NO | Erosion of natural deposits |
| Unregulated Contaminants | | | | | | | | |
| SULFATE (ppm) | | n/a | n/a | 24.00 | 24.00 | | | |
| HEXAVALENT CHROMIUM (ppb) | | n/a | n/a | 0.23 | 0.20-0.23 | 1/6/2014 | | |
| CHROMIUM (ppb) | | n/a | n/a | 0.31 | 0.30-0.31 | 1/6/2014 | | |
| MOLYBDENUM (ppb) | | n/a | n/a | 1.1 | 1.0-1.1 | 1/6/2014 | | |
| STRONTIUM (ppb) | | n/a | n/a | 133 | 130-140 | 1/6/2014 | | |
| VANADIUM (ppb) | | n/a | n/a | 0.27 | 0.27 | 1/6/2014 | | |
| CHLOROMETHANE (METHYLCHLORIDE) (ppb) | | n/a | n/a | 0.26 | 0.00-0.26 | 1/6/2014 | | |

* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want information on the number of sites or the actions taken to reduce these levels, please contact your water supply operator.

NOTE: Not listed are other compounds for which the water was tested but undetected. This information is available upon request at the Utility office. DNR record reveals an excellent history of sample and report submissions for 2017 with no violations. South Milwaukee Water Utility did not test for radon in 2017. South Milwaukee Water Utility tested for cryptosporidium in 2017 with no oocysts found.



Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

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Concerning Lead in Our Water

The Utility is required periodically to test the drinking water in homes at 30 predetermined sites in the distribution system for lead and copper, which enters the drinking water by corrosion of home plumbing. For the last test year, 2017 and since the introduction of polyphosphates in 1994 the water supply complies with the lead and copper action levels.

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. South Milwaukee Waterworks 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.

Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline (800-426-4791)** or at www.epa.gov/safewater/lead.

Turbidity Monitoring

In accordance with s. NR 810.29, Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm that the filtered water is less than 0.1 NTU/0.3NTU. Turbidity is a measure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of our filtration system. During the year, the highest single entry point turbidity measurement was 0.058 NTU.

National Primary Drinking Water Regulation Compliance

We'll be happy to answer any questions about South Milwaukee Water Utility and our water quality. Call at (414) 768-8070. Learn more about the South Milwaukee Water Utility water system at (www.smwi.org).

