



SHEBOYGAN WATER UTILITY ANNUAL REPORT

SUMMER 2017

STRAIGHT FROM THE TAP



During 2016, the Sheboygan Water Utility implemented an additional level of safety for its customers by adding ultraviolet disinfection to the water treatment plant. Ever

since 1922, the Utility had used chlorine as its disinfectant. However, technology in recent years has resulted in several different options for providing additional disinfection barriers. After careful consideration of costs, the Utility selected ultraviolet light as the simplest, most cost-effective secondary disinfection barrier.

Chlorine still serves as the primary disinfectant. All water, though, is now also treated with high intensity ultraviolet light before leaving the plant. This light has no effect on water taste or odor, but can inactivate protozoan cysts, bacteria, and viruses that might have penetrated the water treatment process or developed resistance to chlorine. The new treatment costs about \$2.50 in electrical costs per million gallons of water treated.

As the City grows southward, the Utility has purchased a 2.5 acre parcel of land west of S. Business Drive for the construction of a new water tower. The tower is needed to provide reliable fire protection and water service to the City's southwest area. The anticipated construction cost is \$2,400,000.

In addition, the Utility began a feasibility study to compare different options for a new intake pipeline into Lake Michigan. One of the Utility's active intakes dates to 1919 and is approaching the end of its working lifetime. This will be a costly project but necessary to ensure a safe, reliable supply of water to the community for decades to come.

**Utility Superintendent
Joe Trueblood**



UPDATE ON LEAD WATER LATERALS

Old lead water laterals continue to be a source of concern. These are the private water lines leading from the public water mains into homes. They were mostly installed by plumbers prior to the 1950's.

The Sheboygan Water Utility has used phosphate treatment since 1994 to coat the interior of these lead pipes. Whenever one of these pipes is cut open, the white coating is very evident and serves as a barrier to keep the water from contacting the lead. Since 1994, the Utility's tests for lead have been below EPA action levels, indicating the effectiveness of the treatment in minimizing the risk of lead contamination.

During 2016, the Sheboygan Water Utility was one of the first in the state to qualify for WDNR grant monies to replace lead water laterals. The Utility qualified for \$330,000 in funding. The Utility promptly implemented a lead water lateral replacement program which focused on any remaining lead laterals at daycares or schools.

In order to be efficient, the Utility focused the bulk of the funding on water main replacement projects where old laterals would be impacted. Construction can disrupt the phosphate coating* and cause lead levels to elevate for many months thereafter. So the funds were used to replace any lead water laterals from the curb stop in to the home. If the



Location of lateral (small blue piping) entering home from large blue water main located in the middle of the street.

portion from the water main to the curb was lead, the property owner paid for that replacement. In most cases, the cost to property owners ended up between \$2,500 to \$3,500.

Medical professionals understand the importance of minimizing exposure to lead. Many older homes still contain lead paint or coatings, and these can be released during home remodeling projects. Contractors typically know how to protect themselves, but do-it-yourselfers might overlook this risk. Toys and other products are still sometimes discovered with high levels of lead in paint or coatings. Lead arsenate pesticides were also used in the past, and can persist in soil for decades.

And what about lead in your drinking water? First of all, contact the Utility to determine if you even have an old lead water lateral. If you do, consider replacing it. If you can't afford to replace it, then visit the Utility's information page for tips on further minimizing the risks, including flushing your water in the morning or using an inexpensive home filtration device.

**The protective phosphate coating on the interior of a lead lateral pipe.*



SHEBOYGAN'S BOARD OF WATER COMMISSIONERS



Gerald Van De Kreeke



Mark Heinz



Ray Haen

Elected by the Common Council, the Board of Water Commissioners meets on the third Monday of each month and is responsible for overseeing the operation and maintenance of the Sheboygan Water Utility. Members are (left to right): President Gerald Van De Kreeke, Secretary Mark Heinz, and Member Ray Haen.

Contact Information - Sheboygan Water Utility
Address: 72 Park Avenue, Sheboygan, WI 53081
Email: customerservice@sheboyganwater.org

Customer Service and Billing Information:
Phone: (920) 459-3800 Option 2; Fax: (920) 459-4325
After Hours Emergencies: (920) 459-3811

Thirsty for more information about your water? Visit us at:
www.sheboyganwater.org, on Twitter, Facebook, and Nextdoor





SHEBOYGAN'S 2016 TAP WATER QUALITY ANALYSIS

For Your Information — The Utility is required to test for a large number of regulated and unregulated (NR) contaminants in drinking water. The table shows contaminants that were detected. All contaminant levels are within applicable state and federal law. Tests include contaminants in the following categories: microbiological, radioactive, inorganic, volatile organic, and synthetic organic including pesticides, herbicides, and pharmaceuticals. Testing for unregulated contaminants allows USEPA to gather baseline data. Not all contaminants are tested annually. *Sampled every three years as required; results shown are the 90th highest percentile of 15 samples taken throughout the City.

CONTAMINANT (and the likely source of contamination)	Violation Level				
	Y/N	Detected	Unit	MCLG	MCL
Aluminum – Water treatment additive, natural deposits	N	0.074	ppm	0	.05-.2
Barium – Natural deposits	N	0.019	ppm	2	2
Bromodichloromethane – By-product of drinking water disinfection	N	7.9	ppb	0	NR
Calcium – Natural deposits	N	34.0	ppm	NR	NR
Chlorate – By-product of drinking water disinfection	N	46.0	ppb	NR	NR
Chlorine, free – Residual of drinking water disinfection	N	0.89	ppm	4	4
Chloride – Natural deposits, road salt	N	11.0	ppm	250	NR
Chloroform – By-product of drinking water disinfection	N	11.8	ppb	0	NR
Chromium – Erosion of natural deposits	N	0.25	ppb	100 ppb	100 ppb
Chromium, Hexavalent – Natural deposits, manufacturing	N	0.21	ppb	NR	NR
*Copper – Residual of copper laterals/plumbing	N	0.035	ppm	1.3	1.3
Cotinine – Metabolite of nicotine	N	0.002	ppb	NR	NR
Dibromo-chloromethane – By-product of drinking water disinfection	N	3.4	ppb	NR	NR
Dichloroacetic Acid (HAA) – By-product of drinking water disinfection	N	4.4	ppb	NR	60 ppb
Fluoride – Water treatment additive, natural deposits	N	0.67	ppm	4	4
Gross Alpha particles – Natural deposits	N	0.18	pCi/l	0	15
Gross Beta particles – Natural deposits	N	1.2	pCi/l	0	50
Haloacetic Acids, total – By-product of drinking water disinfection	N	10.2	ppb	0	60
*Lead – Corrosion of household plumbing materials	N	3.2	ppb	0	15
Magnesium – Natural deposits	N	11.0	ppm	NR	NR
Manganese – Natural deposits	N	0.6	ppb	NR	50
Molybdenum – Natural deposits	N	1.0	ppb	NR	NR
Nitrate – Natural deposits, farm runoff	N	0.6	ppm	10	10
Orthophosphate – Corrosion control inhibitor	N	0.58	ppm	NR	NR
Radium 226 + 228 Combined – Natural deposits	N	0.76	pCi/l	0	20 pCi/l
Sodium – Erosion of natural deposits	N	11.0	ppm	NR	500 ppm
Strontium – Natural deposits	N	125.0	ppb	NR	NR
Sulfate – Natural deposits	N	35.0	ppm	NR	250
Trichloroacetic Acid (HAA) – By-product of drinking water disinfection	N	5.7	ppb	NR	60 ppb
Trihalomethanes, total – By-product of drinking water disinfection	N	23.3	ppb	0	80
Total Dissolved Solids – Natural deposits	N	180.0	ppm	500	NR
Turbidity – Natural deposits	N	0.03	NTU	n/a	<0.3 NTU
Uranium, total – Natural deposits	N	0.12	pCi/l	0	30 pCi/l
Vanadium – Natural deposits	N	0.3	ppb	NR	NR

EXPLANATION OF TERMS USED

Maximum Contaminant Level (MCL): The maximum allowable amount for any substance set by the Environmental Protection Agency (EPA).

Maximum Contaminant Level Goal (MCLG): The maximum allowable amount for any substance set by the EPA at which no known or anticipated adverse health effects would occur.

Nephelometric Turbidity Unit (NTU): The amount of suspended material in water.

Not Regulated (NR)

Picocuries per liter (pCi/l): A unit of measure of radioactivity.

Parts per million (ppm): A unit of measure equivalent to one gallon in one million gallons.

Parts per billion (ppb): A unit of measure equivalent to one gallon in one billion gallons.

LEAD & COPPER

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. The Sheboygan 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 two 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 EPA safe drinking water hotline at 1-800-426-4791 or epa.gov/safewater/lead.

Cryptosporidium Monitoring - Cryptosporidium is a microbial parasite naturally found in surface water throughout the world. If ingested, it can cause intense gastrointestinal distress in otherwise healthy people. The Sheboygan Water Utility utilizes UV Disinfection to effectively inactivate the protozoan cryptosporidium.

In compliance with the Long Term 2 Enhanced Surface Water Treatment Rule, the Sheboygan Water Utility has conducted source water monitoring for cryptosporidium. Last year cryptosporidium was detected 1 time(s) in the untreated source waters of Lake Michigan.

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 0.3NTU. Turbidity is a measure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of the filtration system. During the year, the highest single entry point turbidity measurement was 0.118 NTU. The lowest monthly percentage of samples meeting the turbidity limits was 100 percent.

SHEBOYGAN'S CURRENT WATER RATES EFFECTIVE 1/1/2016

Meter Size	Fixed Quarterly Charge	Quarterly Public Fire Protection
5/8"	\$11.70	\$7.92
3/4"	\$11.70	\$7.92
1"	\$21.00	\$19.80
1 1/4"	\$30.00	\$29.40
1 1/2"	\$39.00	\$39.60
2"	\$60.00	\$63.60
3"	\$102.00	\$118.80
4"	\$162.00	\$198.00
6"	\$306.00	\$396.00

QUARTERLY VOLUME CHARGE

First 150/100 C.F.	\$1.40
Next 4,850/100 C.F.	\$1.27
Over 5,000/100 C.F.	\$1.08

SEWER & GARBAGE RATES AS OF 1/1/17

Fixed Quarterly Sewer Charge	\$26.96
Volume Charge	\$1.85/100 C.F.
Garbage Fee Per Residential Unit, Quarterly Rate	\$15.00

FOR SPANISH & HMONG READERS

El Agua Sheboygan Utilidad informe anual está disponible en español visitando www.sheboyganwater.org.

Daim Ntawv Qhia Txog Sheboygan Water Utility
Rau Txhua Xyoo muab sau rau lus Hmoob
teev rau hauv internet yog mus saib rau ntawm
http://www.sheboyganwater.org.

Thirsty for more information about your water?

Visit us at: www.sheboyganwater.org, on Twitter, Facebook, and Nextdoor

