

Know your tap water.



The U.S. Environmental Protection Agency requires water suppliers, such as Superior, Water, Light and Power, to deliver a Consumer Confidence Report, also known as an annual drinking water quality report, to customers.

This report provides important information about local drinking water quality—where your water comes from, our testing results in regards to compliance with the regulated detected contaminants, and other educational information.

SWL&P is proud of our record to safely deliver reliable, quality water to our customers for more than 100 years.

Water System Information

If you would like to know more about the information contained in this report, please contact Donald Vollmer, SWL&P Operator In Charge at 715-398-4421.

Opportunity for input on decisions affecting your water quality

Superior Water, Light & Power is a private utility. Public meetings to voice concerns regarding water quality and/or usage is not offered. However, should you have a question or concern regarding the quality or usage of your drinking water, please feel free to contact Donald Vollmer, SWL&P Operator In Charge at 715-398-4421.

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 (ft)	Waterbody Name	Status
1	Surface Water		Lake Superior	Active

To obtain a summary of the source water assessment please contact, Donald Vollmer, SWL&P Operator In Charge at 715-398-4421.

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

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 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.	known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MCLG	Maximum Contaminant Level Goal: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.	mrem/year Millirems per year: A measure of radiation absorbed by the body.
MFL	Million fibers per liter.	NTU Nephelometric Turbidity Units.
MRDL	Maximum Residual Disinfection 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.	pCi/l Picocuries per liter (a measure of radioactivity).
MRDLG	Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no	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 2018)	Violation	Typical Source of Contaminant
HAA5 (ppb)	SM-4	60	60	35	11 - 34		NO	Byproduct of drinking water chlorination
TTHM (ppb)	SM-4	80	0	65.0	25.2-53.8		Yes, Ended 4/16/2018	Byproduct of drinking water chlorination
HAA5 (ppb)	SM-5	60	60	33	12 - 43		NO	Byproduct of drinking water chlorination
TTHM (ppb)	SM-5	80	0	80.9	32.8-68.5		Yes, Ended 4/16/2018	Byproduct of drinking water chlorination
HAA5 (ppb)	SM-6	60	60	8	2 - 16		NO	Byproduct of drinking water chlorination
TTHM (ppb)	SM-6	80	0	80.5	26.9-60.7		Yes, Ended 4/16/2018	Byproduct of drinking water chlorination
HAA5 (ppb)	SM-7	60	60	34	9-24		NO	Byproduct of drinking water chlorination
TTHM (ppb)	SM-7	80	0	61.9	20.3-30.7		Yes, Ended 4/16/2018	Byproduct of drinking water chlorination

INORGANIC CONTAMINANTS								
Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2018)	Violation	Typical Source of Contaminant
Barium (ppm)		2	2	0.010	0.010		NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)		4	4	0.7	0.7		NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (NO3-N) (ppm)		10	10	0.51	0.51		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)		n/a	n/a	6.40	6.40		NO	n/a

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2018)	Violation	Typical Source of Contaminant
Copper (ppm)	AL=1.3	1.3	0.0630	0 of 30 results were above the action level	8/18/2017	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15	0	5.40	1 of 30 results were above the action level	8/10/2017	NO	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED CONTAMINANTS Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Contaminant (units)	Level Found	Range	Sample Date (if prior to 2018)
Sulfate (ppm)	4.50	4.50	

UCMR3 - SAMPLES COLLECTED IN 2014

Contaminant (units)	Site	Average (ppb)	Range
Hexavalent Chromium	EPTDS	0.04	.033-.046
Strontium	EPTDS	25	24-25
Chromium	Field Blank	0.11	0.11
Strontium	DSMRT	25	24-25
Hexavalent Chromium	DSMRT	0.034	0.034

UCMR4 - SAMPLES COLLECTED IN 2018

Contaminant (units)	Site	Average (ppb)	Range
Manganese (ppb)	EP	1.83	0.53 - 3.9
TOC (ppb)	T1	1725	1400 - 1900
BCAA (ppb)	SM-4	1.44	0.74 - 1.9
BDCAA (ppb)	SM-4	1.3	1.1 - 1.52
TCAA (ppb)	SM-4	7.9	6.7 - 9.9
DCAA (ppb)	SM-4	7.2	5.0 - 9.8
CDBAA (ppb)	SM-4	0.31	0.31
BCAA (ppb)	SM-5	1.2	0.64 - 2.0
BDCAA (ppb)	SM-5	1.4	1.1 - 1.64
DCAA (ppb)	SM-5	6.6	4.0 - 12.0
TCAA (ppb)	SM-5	9.2	7.66 - 12.0
CDBAA (ppb)	SM-5	0.31	0.31
BCAA (ppb)	SM-6	0.52	0.32 - 0.88
BDCAA (ppb)	SM-6	1.45	1.45
DCAA (ppb)	SM-6	2.0	1.8 - 2.4
TCAA (ppb)	SM-6	4.2	1.1 - 7.2
BCAA (ppb)	SM-7	1.3	0.97 - 1.6
BDCAA (ppb)	SM-7	1.1	0.95 - 1.2
DCAA (ppb)	SM-7	7.0	4.6 - 9.0
TCAA (ppb)	SM-7	6.2	5.5 - 6.7

Health effects for any contaminants with MCL violations or Action Level Exceedances

Contaminant Health Effects

TTHM: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

LEAD: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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. Superior Water Light & Power Company 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.

Corrective Actions Taken

SWL&P has implemented more rigorous distribution system flushing procedures.

OTHER COMPLIANCE

Uncorrected Significant Deficiencies

Deficiency Description and Progress to Date	Date System Notified	Scheduled Correction Date
1. Plant flow meters must be tested every two years to identify and correct any metering errors. This includes the raw water meter, entry point meter, and recycle meter. If unidentified and uncorrected, meter errors could result in chemical dosing errors, errors in CT calculations used in determining pathogen log reduction compliance, and determining if the maximum recycle flow rate is exceeded. The meters must be tested by July 1, 2019 and then every two years from this date. (ch. NR810.13(2e) Wis. Adm. Code)	12/28/2018	7/1/2019
3. PACI and caustic injector lines do not have a pressure gauge between the feed pump and the pressure sustaining valve. Gauge pressure is used when adjusting the sustaining valve as well as checking to be sure the sustaining valve is functioning as designed. The pressure setting on the sustaining valve must be set higher than the differential pressure from the sustaining valve to the top of the solution container. You can figure this out but need to account for the density of the chemicals. Under the current situation, the operator would not know whether the sustaining valve is functioning correctly and if it was not, it could allow a dangerous amount of chemical to be siphoned into the water. The gages must be installed by April 1, 2019. (ch. NR811.39(2)(e) and (2)(f)(3), Wis. Adm. Code)	12/28/2018	6/1/2019
4. Pressure sustaining valve on the caustic line is leaking. It appears the seals have failed. Equipment such as this needs to be repaired or replaced in a timely manner given its critical function. This valve is the safety device that prevents siphoning of dangerous amount of chemical into the water under certain conditions. Repair or replace the unit by April 1, 2019. (ch. NR810.03 and .13 Wis. Adm. Code)	12/28/2018	6/1/2019
14. SWL&P is not exercising all its valves so that all are routinely exercised and this was pointed out in the previous survey. Good progress has been made since the last survey; however, there is still 580 water main valves that have not been exercised during the last 5 years or 7 years for hydrant service leads as required by ch. NR810.03 and .13 Wis. Adm. Code. Failure to correct previous deficiencies results in a "management and operation" significant deficiency. It's important that these valves either be exercised or replaced if they are not functional. Valves are used to isolate water main or even service lines during planned and emergency situations. Not having functional valves may place property and life at risk.	12/28/2018	10/1/2021
8. The tower's vent poses a sanitary hazard. 2014 pictures taken by KLM (below) show that it has a mushroom hood with unprotected side openings. The drip edge of vent hoods must extend down past the side openings to prevent contaminants. Bird droppings could drip from the edge and blow into the reservoir. This needs to be resolved by August 1, 2019. (ch. NR811.64(8c) Wis. Adm. Code)	12/28/2018	8/1/2019
9. KLM reported coatings failure ("significant blistering") on the inside surface of the Towers bowl and recommended it be addressed during the next inspection (2019). Blistering leads to pitting which leads to holes and it may mask the more acute issues This needs to be resolved before winter sets in next year or November 1, 2019. (ch. NR810.03, .13, and .14 Wis. Adm. Code)	12/28/2018	11/1/2019
7. All the reservoir overflow pipes must have a fixed screen. Cantilever, breakaway units are not approved since they may fail in the open position and allow vectors into the reservoir. Vectors are insects, birds, bats, mice, or other vermin. Screen must be 24-mesh stainless for the ground storage reservoir and at least 4-mesh for the elevated reservoir. This must be resolved by August 1, 2019. (ch. NR811.64(4c and 4d) Wis. Adm. Code)	12/28/2018	10/1/2019

Actions Taken

SWL&P has been in regular communication with DNR regarding plans and schedule, and has been actively implementing corrective measures.

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 .32 NTU. The lowest monthly percentage of samples meeting the turbidity limits was 99 percent.