

**2018 Consumer Confidence Report Data  
WAUPACA WATERWORKS, PWS ID: 46904022**

**City of Waupaca  
Public Works Department/Water Utility Division  
Annual Drinking Water Report**

We're very pleased to provide you with the 2018 Consumer Confidence Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources along with our commitment to ensuring the quality of your water.

### **Water System Information**

If you would like to know more about the information contained in this report, please contact Mark Nollenberg, Water Superintendent at (715) 258-4423 or Justin Berrens, Director of Public Works at (715) 258-4420.

### **Opportunity for input on decisions affecting your water quality**

The City of Waupaca Common Council meets at 6:00 P.M. every first and third Tuesday of each month. Meetings are held in the Council Chambers at 111 S. Main Street, Waupaca, WI (City Hall). The agenda allows for public input on any topic. Please feel free to attend.

### **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) or go to: <https://www.epa.gov/ground-water-and-drinking-water/>

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

The City of Waupaca receives 100% of its drinking water from groundwater sources via 7 shallow wells. A list of the wells are included below. To obtain a summary of the source water assessment please contact, Mark Nollenberg at (715) 258-4423

Source ID	Source	Depth (in feet)	Status
2	Groundwater	45	Active
3	Groundwater	67	Active
4	Groundwater	88	Active
5	Groundwater	84	Active
6	Groundwater	75	Active
7	Groundwater	74	Active
8	Groundwater	69	Active

## 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 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 pleased to report that our City of Waupaca drinking water is **safe** and **has again met and exceeded** all regulated federal and state requirements in 2018. 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 2017)	Violation	Typical Source of Contaminant
HAA5 (ppb)	D-16	60	60	2	2		No	By-product of drinking water chlorination
TTHM (ppb)	D-16	80	0	6.7	6.7		No	By-product of drinking water chlorination
HAA5 (ppb)	D-17	60	60	2	2		No	By-product of drinking water chlorination
TTHM (ppb)	D-17	80	0	15.2	15.2		No	By-product of drinking water chlorination

### Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2017)	Violation	Typical Source of Contaminant
BARIUM (ppm)		2	2	0.056	0.022 - 0.056	4/24/2017	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM (ppb)		100	100	1	0 - 1	4/24/2017	No	Discharge from steel and pulp mills; Erosion of natural deposits
FLUORIDE (ppm)		4	4	2.0	0.3 - 2.0	4/24/2017	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NICKEL (ppb)		100		1.6000	0.5500 - 1.6000	4/24/2017	No	Nickel occurs naturally in soils, ground water and surface waters and is often used in

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2017)	Violation	Typical Source of Contaminant
								electroplating, stainless steel and alloy products.
NITRATE (NO3-N) (ppm)		10	10	7.73	2.10-8.40		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)		n/a	n/a	89.00	6.20 - 89.00	4/24/17	No	n/a

Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2017)	Violation	Typical Source of Contaminant
COPPER (ppm)	AL=1.3	1.3	0.4200	1 of 20 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	4.30	0 of 20 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 2017)	Violation	Typical Source of Contaminant
GROSS ALPHA, EXCL. R & U (pCi/l)		15	0	3.4	0.0 - 3.4	4/24/2017	No	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)		5	0	3.4	2.5 - 3.4	4/24/2017	No	Erosion of natural deposits

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2017)	Violation	Typical Source of Contaminant
GROSS ALPHA, INCL. R & U (n/a)		n/a	n/a	3.4	0.0 - 3.4	4/24/2017	No	Erosion of natural deposits

### Volatile Organic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2017)	Violation	Typical Source of Contaminant
TETRACHLOROETHYLENE (ppb)		5	0	0.4	0.4		No	Leaching from PVC pipes; Discharge from factories and dry cleaners

## Health effects for any contaminants with MCL violations/Action Level Exceedances

### Contaminant Health Effects

**COPPER** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilsons Disease should consult their personal doctor.

### Additional Health Information

**Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider. Females who are or may become pregnant should not consume water with nitrate concentrations that exceed 10 ppm. There is some evidence of an association between exposure to high nitrate levels in drinking water during the first weeks of pregnancy and certain birth defects. The Wisconsin Department of Health Services recommends people of all ages avoid long-term consumption of water that has nitrate level greater than 10 milligrams per liter (mg/L).

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. Waupaca 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. 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](http://www.epa.gov/safewater/lead).

As noted in this report, the city's drinking water is **fluoridated**. According to the US Centers for Disease Control, if a child under 6 months of age consumes infant formula reconstituted with fluoridated water, there may be an increased chance of adverse health effects. For more information, please consult with a health care provider.