

*City of Waupaca, Wisconsin  
Public Works Department  
Public Drinking Water Supply System*

## **2014 Annual Drinking Water Quality Report**

### **Section 1: Introduction**

We're very pleased to provide you with the 2014 City of Waupaca Annual Drinking Water Quality 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.

### **Section 2: Water Source**

Our water source is from 7 shallow wells located around the City utilizing the local shallow groundwater aquifer. The city of Waupaca Water Department has source water recharge reports available that provides more information such as potential sources of contamination.

### **Section 3: Test Results**

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 2014.

### **Section 4: Questions**

If you have any questions about this report or concerning your drinking water system, please contact John Edlebeck, City of Waupaca Director of Public Works at 715-258-4420 or Mark Nollenberg, Water Superintendent at 715-258-4423. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled City of Waupaca City Council Meetings. They are held on the first and third Tuesday of each month at Waupaca City Hall, 111 S. Main Street, in the Council Chambers at 6:00pm.

### **Section 5: Sampling Period**

The City of Waupaca Water System routinely monitors for constituents in your drinking water according to Federal and State laws. The following table summarizes the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2014. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

### **Section 6: Definitions**

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions

*Parts per million (ppm) or Milligrams per liter (mg/l)* - One part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Picocuries per liter (pCi/L)* - Picocuries per liter is a measure of the radioactivity in water.

*Action Level (AL)* - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is 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* -The “Goal”(MCLG) is 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.

### Section 7: Test Results

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological and Disinfection Byproducts</b>						
Coliform	N	1	actual count	0	<=5%	Naturally present in the environment
HAA5	N	3	ppb	60	60	Chlorine-based disinfection by-product
TTHM	N	9.7	ppb	0	80	Chlorine-based disinfection by-product
<b>Inorganic Contaminant</b>						
Antimony	N	0.3	ppb	6	6	Discharge from petroleum refineries, fire retard
Arsenic	N	1	ppb	n/a	10	Erosion from natural deposits
Barium	N	0.058	ppm	2	2	Discharge of drilling wastes, metal refineries, erosion of natural deposits
Beryllium	N	0.22	ppb	4	4	Discharge from metal refineries and coal burning, electrical, aerospace and defense industries
Cadmium	N	0.1	ppb	5	5	Corrosion of galvanized pipes, erosion of natural deposits, discharge from metal refineries, runoff from waste batteries and paints
Chromium	N	1	ppb	100	100	Discharge from steel and pulp mills, erosion of natural deposits
Copper	N	0.47	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	1.0 max	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	3.30	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	1.8000	ppb	100	100	Discharge from electroplating, stainless steel and Alloy production, erosion of natural deposits
Nitrate (as Nitrogen)	N	7.40 ave	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	N	0.006 ave	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	2	ppb	50	50	Erosion of natural deposits
Sodium	N	77.00	ppm	n/a	n/a	Erosion of natural deposits

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Radioactive Contaminants</b>						
Gross Alpha (Excl R&U)	N	3.0	pCi/l	0	15	Erosion of natural deposits
Gross Alpha (Incl R & U)	N	3.0	pCi/l	n/a	n/a	Erosion of natural deposits
Combined Uranium	N	2.8	pCi/l	0	30	Erosion of natural deposits
Gross Beta	N	5.1	pCi/l	n/a	n/a	Erosion of natural deposits
Radium 226 + 228	N	3.0	pCi/l	0	5	Erosion of natural deposits
<b>Unregulated Contaminants</b>						
Bromochloromethane	N	0.23	ppb	n/a	n/a	Chlorine-based disinfection by-product
Bromodichloromethane	N	3.30	ppb	n/a	n/a	Chlorine-based disinfection by-product
Bromoform	N	0.50	ppb	n/a	n/a	Chlorine-based disinfection by-product
Chloroform	N	4.40	ppb	n/a	n/a	Chlorine-based disinfection by-product
Chloromethane	N	0.40	ppb	n/a	n/a	Chlorine-based disinfection by-product
Dibromochloromethane	N	2.40	ppb	n/a	n/a	Chlorine-based disinfection by-product
<b>Volatile Organic Contaminants</b>						
1,1,1 Trichloroethane	N	0.2 ave	ppb	200	200	Discharge from metal degreasing and factories
P-Dichlorobenzene	N	0.0 ave	ppb	75	75	Discharge from industrial chemical factories
Dichloromethane	N	0.0 ave	ppb	0	5	Discharge from pharmaceutical-chemical factories
Tetrachloroethy lene	N	0.5 ave	ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
Toluene	N	0.0001 ave	ppm	1	1	Discharge from petroleum factories

### **Section 8: Health Effects**

**Lead:** Infants and children who drink water containing lead in excess of the action level (AL) of 15 ppm (City of Waupaca drinking water tested at 3.30 ppm) 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. Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

**Nitrate:** Infants below the age of six months who drink water containing nitrate in excess of the maximum contamination level (MCL) of 10 ppm could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply. City of Waupaca drinking water tested at 7.4 ppm of nitrate in 2014.

**Fluoride:** 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.

### **Section 9: Waupaca Water System Compliance**

As you can see by the table, we're proud that the city drinking water meets or exceeds all Federal and State requirements in 2014. We have learned through our monitoring and testing that some constituents have been detected. The USEPA and the Wisconsin Department of Natural Resources has determined that your water **IS SAFE** at these levels. All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 at 1-800-426-4791.

### **Section 10: Maximum Contamination Limits**

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

### **Section 11: Persons At Greater Health Risk**

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 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 and other microbiological contaminants are available from the:

Safe Drinking Water Hotline (800-426-4791).

### **Section 12: Waupaca Drinking Water System Update -**

The city annually performs needed capital improvements on the city drinking water production, transmission, storage and distribution systems to continue to provide safe and affordable potable water to all city water users.

### **Section 13: Conclusion**

We at the City of Waupaca Water Department work around the clock to provide top quality drinking water to every tap. We ask that all our customers help us protect our precious groundwater and surface water resources, which are the heart of our community, our way of life and our children's future. If you have questions regarding this report or the city of Waupaca drinking water system in general, please feel free to contact:

***John Edlebeck, P.E., Director of Public Works / City Engineer***  
***City of Waupaca, Wisconsin Public Works Department***  
**715-258-4420** [jedlebec@cityofwaupaca.org](mailto:jedlebec@cityofwaupaca.org)

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**Notification List**

Common Council  
Mayor  
City Administrator  
Utility Clerk  
Front Desk – City Clerk  
Water Superintendent  
Large Industrial Water Users  
Waupaca County Post – Legal Notice  
WDUX Radio  
Apartment Complexes with single water meter – hand deliver to each unit  
City Hall Notification Board in Lobby Hallway – posted  
City Hall breakroom -posted  
Library - posted  
City Web Page  
WIN TV  
Chamber of Commerce  
Recreation Center - posted  
Waupaca School District  
Waupaca Senior Center  
Waupaca Nutrition Center  
Riverside Medical Center  
Waupaca County Courthouse  
Waupaca County Jail  
City of Waupaca Departments- posted  
Gusmer Enterprises