



## **Yearly Water Quality Report 2017**

The Wausau Water Department is pleased to present its yearly Water Quality Report. The Environmental Protection Agency (EPA) and the Department of Natural Resources (DNR) require that the water suppliers provide a yearly report indicating the quality and the source of water to the general public.

The quality of our water surpasses every state and federal regulation without exception. This consumer report contains interesting information such as: results of the quality tests of the water, definitions, origin of the water supply, how to reduce lead exposure in drinking water, and a note for people with compromised immune systems. For more information about this report, call Scott Boers, Water Plant Superintendent at 715-261-7286.

### **Source of Wausau's Drinking Water**

Wausau's drinking water comes from six municipal wells, all of which are located near the Wisconsin River. These wells range in depth of 95 feet to 160 feet and pump anywhere from 900 to 3000 gallons per minute.

From the wells, the water travels to our Water Treatment Plant where it undergoes treatment to remove iron and manganese. It then enters the distribution system made up of approximately 250 miles of mains that deliver the water from the Treatment Plant to close to 16,000 homes and businesses served by Wausau Water Works.

### **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. Immunocompromised 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 microbial contaminants are available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

### **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 storm water 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 storm water 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 storm water 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.

### Lead and Copper

As a result of materials used in your home’s plumbing, it is possible that lead levels at your home may be higher than at other homes in the community. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. They could also 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 primarily from materials and components associated with service lines and home plumbing. Wausau Water Works 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.

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). Additional information is also available from the Safe Drinking Water Hotline from EPA, 1-800-426-4791.

### 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 2017) | Violation | Typical Source of Contaminant             |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|---|
| HAA5 (ppb)          | D-11 | 60  | 60   | 9           | 9     |                                | No        | By-product of drinking water chlorination |
| TTHM (ppb)          | D-   | 80  | 0    | 8.4         | 8.4   |                                | No        | By-product of                             |

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range | Sample Date (if prior to 2017) | Violation | Typical Source of Contaminant             |
|---------------------|------|-----|------|-------------|-------|--------------------------------|-----------|---|
|                     | 11   |     |      |             |       |                                |           | drinking water chlorination               |
| HAA5 (ppb)          | D-16 | 60  | 60   | 8           | 8     |                                | No        | By-product of drinking water chlorination |
| TTHM (ppb)          | D-16 | 80  | 0    | 10.7        | 10.7  |                                | 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   |
|-----------------------|------|-----|------|-------------|---------------|--------------------------------|-----------|---|
| ARSNIC (ppb)          |      | 10  | n/a  | 1           | 1 - 1         |                                | No        | Erosion of natural deposits; Runoff from orchards; Run off from electronics production wastes                             |
| BARIUM (ppm)          |      | 2   | 2    | 0.006       | 0.006 - 0.006 |                                | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                                |
| FLUORIDE (ppm)        |      | 4   | 4    | 0.7         | 0.6 - 0.7     |                                | No        | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| NITRATE (N03-N) (ppm) |      | 10  | 10   | 0.92        | 0.55 - 0.92   |                                | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                               |
| NITRITE (N02-N) (ppm) |      | 1   | 1    | 0.065       | 0.000 - 0.065 |                                | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                               |

| Contaminant (units) | Site | MCL | MCLG | Level Found | Range         | Sample Date (if prior to 2017) | Violation | Typical Source of Contaminant |
|---------------------|------|-----|------|-------------|---------------|--------------------------------|-----------|-------------------------------|
| SODIUM (ppm)        |      | n/a | n/a  | 21.00       | 18.00 - 21.00 |                                | 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  | 0.1270                      | 0 of 30 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    | 13.20                       | 1 of 30 results was 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 |
|-----------------------------|------|-----|------|-------------|-----------|--------------------------------|-----------|-------------------------------|
| RADIUM, (226 + 228) (pCi/l) |      | 5   | 0    | 0.8         | 0.5 - 0.8 | 9/11/2014                      | No        | 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 2017) |
|---------------------|-------------|-------------|--------------------------------|
| SULFATE (ppm)       | 15.00       | 8.30 - 15.0 | 9/11/2014                      |

|                           |  |             |           |
|---------------------------|--|-------------|-----------|
| HEXAVALENT CHROMIUM (ppm) |  | 0.10 -0.13  | 8/13/2015 |
| CHLORATE (ppm)            |  | 300 - 320   | 8/13/2015 |
| STRONTIUM (ppm)           |  | 66 - 69     | 8/13/2015 |
| VANADIUM (ppm)            |  | 1.70 – 1.80 | 8/13/2015 |

## Definitions

**Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. The Action Level is reported to the 90<sup>th</sup> of homes at risk.

**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 is possible, way an E. coli MCL violation has occurred or why total coliform bacteria have been found in our water system, or both, on multiple occasions.

**Maximum Contaminant Level (MCL)** - is the highest level of a contaminant that is allowed in drinking water.

**MCLG - Maximum Contaminant Level Goal (MCLG)** is a level of a contaminant in drinking water below which there is no known or expected risk to health.

**Parts Per Billion (PPB)**- some water constituents are measured in units that are really small. A PPB is a microgram per liter (ug/l) - For example, a part of a billion equates to two drops of water in a house pool of 15,000 gallons; or a second of time in 31.7 years, or the first 16 inches of a trip to the moon.

**Parts Per Million (PPM)** A PPM equates a milligrams per liter (mg/l) - one part per million corresponds to ¼ of a cup in a house pool of 15,000 gallons, a second of time in 11.6 days.

**Picocuries per liter (pCi/l)** - a measure of radioactivity

**ND**- None detected in the drinking water.

**TCR**- Total Coliform Rule.

The Wausau Water Works Commission typically meets the first Tuesday of each month at 1:30 p.m. in City Hall (some exceptions do apply)

If you'd like to learn more about Wausau Water Works, please feel free to attend any of our regularly scheduled Commission meetings. If you wish to have an item placed on the agenda for Commission consideration, please contact Michelle Weasler at 715-261-7289 two weeks prior to the next scheduled meeting.

Meeting agendas and minutes of prior meetings are available on the city website at [www.ci.wausau.wi.us](http://www.ci.wausau.wi.us) .