



WAUSAU WATERWORKS

FOR YOU!

Volume 13, No. 2

Summer 2010

1885

Celebrating 125 Years of Excellence!

2010



2009 - Another Year of Excellent Water Quality!

Wausau Water Works is proud to present this year's Water Quality Report, and even more proud to announce that our test

results for 2009 met all the requirements for safe, excellent water quality. A complete list of the results of these tests are shown on pages 4-5 of this report.

You might ask "why do they prepare this report?" Because we want you, our valued customers, to be informed about your drinking water, and know that the product you are drinking is safe and of the highest quality. The federal government also wants you to be informed about the substances that are in your water, and requires all water utilities in the United States to provide this information to their customers on an annual basis. So let's raise our glasses (of water, of course) and toast to another 125 years of excellence!



Questions About this Report?

If you have questions regarding this water quality report, or concerns about your water, please contact Brad Marquardt, Director of Public Works and Utilities at 715-261-6745 or Dick Boers, Drinking Water Superintendent at 715-261-7286.

If you'd like to learn more about Wausau Water Works visit our website at www.ci.wausau.wi.us/Departments/WausauWaterWorks.aspx.



125th Anniversary Celebration Kicks Off with Plant Tours

You've probably been reading the past year about 2010 being our 125th Anniversary. Staff have been brainstorming on ways to celebrate this auspicious event.

Tours of the **Water Treatment Plant** will be held hourly from 1 p.m. to 6 p.m. on **Wednesday, September 22** (Individuals who have difficulties with stairs will be offered an alternate tour), and tours of the **Wastewater Treatment Plant** will be held hourly from 1 p.m. to 6 p.m. on **Thursday, September 23**.

City of Wausau residents who attend the tours will be able to sign up for a drawing for a \$125.00 credit towards their utility bill*, along with other prizes. So, mark your calendar for September 22nd and 23rd and stop down and help us celebrate **125 Years of Excellence!**

(*Current and former employees are not eligible for the \$125.00 drawing).



Wastewater Treatment Plant - Circa 1940



Professor Faucet's Conservation Tips

We, in the water business, hear everyday about communities who are having difficulties providing quality drinking water for their residents, or utilities who are facing financial shortfalls due to increasing costs of running their facilities.

In Wausau, we are fortunate to have an ample supply of quality drinking water, even though some of our close neighbors aren't that fortunate.

Financially, however, we are facing tough times. We understand that the current economy is hurting everyone, and raising rates, is not something we look forward to doing. Just like so many homeowners and business owners, we are facing the same dilemma ... our expenses continue to climb while our revenues fail to cover the expenses.

On July 1, we will be implementing a 3% water rate increase (see page 8 for the rate schedule). This increase represents the first water rate increase since 2006. Since that point we have seen significant increases in some of our expenses. The table at the bottom of the page shows a couple of examples. The wastewater utility also is experiencing a significant deficit in cash flow. The 8% sewer rate increase that was put in place in January will help the problem, but will not cure it. The Commission has contracted with Baker Tilly to

conduct an independent sewer rate analysis to see what changes will be needed for the future.

How does the 3% water increase affect our customers? Obviously, there will be an increase in the amount paid out for water bills, although for the average family of four using 2400 cubic feet of water, it should be less than a \$2.00 per quarter increase.

What can you do to help? Conservation starts at home. Being smarter in how you use water will help you lower your bills.

How can this be done?

- Check your home regularly for leaks, and fix them promptly. Do you have a toilet that you need to giggle the handle? That's the start of a bigger problem. Toilets can waste more water than most other fixtures.
- Check faucets to make sure there are no leaks. A stream that is only 1/16th of an inch in diameter can waste over 800 gallons of water per day. A stream the diameter of a pencil can waste over 13,000 gallons per day.
- Outside watering should be done early in the day to prevent most of the water being lost to evaporation. Limit the amount of time that you water. Lawns are like sponges, they can only absorb so much before the water starts running off. Watering 10-15 minutes per day should be sufficient for



established lawns. And, make sure you're only watering your lawn - sidewalks and roadways don't need watering.

- Avoid cutting your lawn too short. Keep the height adjustment a little higher which will also help your lawn retain moisture.
- Use mulch around gardens and trees to help maintain moisture.
- Wash your car on the lawn. You'll get a clean car and water the lawn all at the same time.
- Install low flow appliances. Energy Star rated appliances typically save on water and electric.
- Short showers can use less water than taking a bath in a full tub.
- Full dishwashers can use less water than by hand washing dishes.
- Turn off the water while brushing your teeth.
- Run full loads of laundry or change the settings on your washer when running smaller loads.
- For a cold drink, keep a pitcher of water in the refrigerator.
- When you give your pet fresh water, don't throw the old water down the drain. Use it to water your trees or shrubs.
- If you accidentally drop ice cubes when filling your glass from the freezer, don't throw them in the sink. Drop them in a house plant instead.
- Soak pots and pans instead of letting the water run while you scrape them clean.



Since 2005, Wausau Water Works has seen significant increases in some of our major expenses. The table below highlights a couple of those expenses.

Water	2005 Expense	2009 Expense	Total Increase	Wastewater	2005 Expense	2009 Expense	Total Increase
Electricity	\$203,387	\$293,070	\$ 89,683	Electricity	\$102,754	\$227,758	\$125,004
Chemicals	\$166,924	\$304,735	\$137,811	Chemicals	\$ 73,572	\$248,999	\$175,427

Routine Water Quality Testing....

The Water Quality Test Results shown on pages 4-5 only lists substances which are required to be tested and are detected. **We run**



numerous tests for substances which are not detected. We also run routine tests to help us evaluate water characteristics such as pH, alkalinity,

hardness, etc. A summary of those results is shown below.

pH - Typical result: 8.5. Ideal range: 7 to 8.5. Measure of acidity—low values may indicate corrosive water.

Alkalinity - Typical result: 70 to 80 mg/l. Measure of water's ability to neutralize acids—is related to pH and hardness.

Hardness - Typical results: 80 to 100 mg/l or 4-1/2 to 6 grains/gallon. Wausau's water is moderately soft. Hard water is beneficial to health, but high levels can decrease soap's cleaning ability and cause scaling inside of pipes.

Iron - Typical result: less than 0.05 mg/l. Natural levels in our well water can be high, but it is removed by our treatment plant - not a health concern, but it can cause taste and odor problems as well as staining of laundry when bleach is used.

Manganese - Typical result: less than 0.04 mg/l. Like iron, a naturally occurring mineral that is removed at the treatment plant.

What these tests indicate is that we have high quality, good tasting water available right at our taps!

Did You Know?

All drinking water, including bottled water, may be reasonably expected to contain naturally dissolved elements/minerals. It's important to remember that the presence of these constituents does not necessarily pose a health risk, and generally are required for a balanced diet. 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**.

Important Info

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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 you are concerned about elevated lead levels in your home's water, you may wish to have your water tested, or you can flush your tap for 30 seconds to 2 minutes before using tap water. Again, additional information is available from the Safe Drinking Water Hotline at **1-800-426-4791**.

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.

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 of 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)**.

You may also contact our office at 715-261-6530 if you have any questions regarding your water quality, or to obtain information on lead testing in your home. Our office hours are 8:00 a.m. to 4:30 p.m. Monday through Friday.

Sewer Backup Insurance

Property owners are urged to contact their homeowner's insurance agent to add sewer backup insurance as a rider to their policies, especially if you have an improved basement. **Sewer backups can occur for a variety of reasons, but that does not always means there is liability on the part of the Utility.**

Talk with your agent to be sure your valuables are fully protected, and **never** store valuable items on the floor of your basement.



WATER QUALITY TEST RESULTS

Substance	Unit Measurement	MCLG	MCL	Level Detected	Violation Y/N	Likely Source Of Substance
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Disinfection Byproducts

HAA5 (Last sample date 09/10/2008)	ppb	60	60	9 (Range 7-9)	NO 	Disinfection by-product
TTHM (Last sample date 09/11/2008)	ppb	0	80	8.3 (Range 6.4-8.3)	NO 	Disinfection by-product

Inorganic Contaminants

Antimony Total (Last sample date 09/11/2008)	ppb	6	6	.2 (Range ND-.2)	NO 	Discharge from petroleum refineries; fire retardants; ceramics, electronics, solder
Barium (Last sample date 09/11/2008)	ppm	2	2	.004	NO 	Erosion of natural deposits
Cadmium (Last sample date 09/11/2008)	ppb	5	5	.3 (Range .2-.3)	NO 	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Copper (Last sample date 09/15/2008)	ppm	1.3	AL=1.3	0.078 (0 of 30 results were above the action level)	NO 	Corrosion of household plumbing systems
Cyanide (Last sample date 09/11/2008)	ppb	200	200	19 (Range 19)	NO 	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (Last sample date 12/02/2008)	ppm	4	4	1.3 (Range 1.2-1.3)	NO 	Erosion of natural deposits; water additive which promotes strong teeth
Lead (Last sample date 09/15/2008)	ppb	0	AL=15	9.18 (2 of 30 results were above the action level)	NO * 	Corrosion of service lines and household plumbing systems
Nickel (Last sample date 09/11/2008)	ppb		100	1.5000 (Range 1.5000)	NO 	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products

* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want more information on the number of sites or the actions taken to reduce these levels, please contact Wausau Water Works at 715-261-6530.

Substance	Unit Measurement	MCLG	MCL	Level Detected	Violation Y/N	Likely Source Of Substance
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Inorganic Contaminants (continued)

Nitrate (N03-N) (Last sample date 9/14/2009)	ppm	10	10	.79 (Range .51-.79)	NO 	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (N02-N) (Last sample date 09/11/2008)	ppm	1	1	.009 (Range .007-.009)	NO 	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (Last sample date 09/11/2008)	ppm	N/A	N/A	13 (Range 10-13)	NO 	Naturally occurring, contained in corrosion control additive

Radioactive Contaminants

Radium (226 + 228) (Last sample date 7/17/2009)	pCi/l	0	5	1.5 (Range 1.4-1.5)	NO 	Erosion of natural deposits
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Unregulated Contaminants

Bromodichloromethane (Last sample date 09/16/2009)	ppb	N/A	N/A	.47 (Range ND-.47)	NO 	By-product of drinking water chlorination
Chloroform (Last sample date 09/16/2009)	ppb	N/A	N/A	7.78 (Range 6.4-7.78)	NO 	By-product of drinking water chlorination
Sulfate (Last sample date 09/10/2008)	ppm	N/A	N/A	15 (Range 11-15)	NO 	Naturally occurring

Volatile Organic Contaminants

P-Dichlorobenzene (Last sample date 09/10/2008)	ppb	75	75	.5 (Range ND-2.0)	NO 	Discharge from pharmaceutical and chemical factories
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Data presented in these tables represent the most current test results. Some tests are performed on a 3 year cycle.

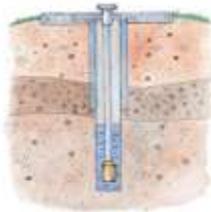
SEE PAGE 6 FOR DEFINITION OF TERMS

The tables on these two pages display the number of contaminants that were required to be tested in the last five years. The Drinking Water Report may contact up to 5 years worth of water quality results. If a system tests annually, or more frequently, the results from the most recent year are shown on the Drinking Water Report. If testing is done less frequently, the results shown on the Drinking Water Report are from the past 5 years.

Where Does Our Water Come From?

Wausau's drinking water comes from six municipal wells, all of which are located near the

Wisconsin River. These wells range in depth from 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 prior to distribution to your home or business.

Approximately 250 miles of mains deliver the water from the Treatment Plant to close to 16,000 homes and businesses served by Wausau Water Works.

Thousands of Water Quality Tests Conducted Annually

The substances shown on the tables on pages 4 and 5 indicate contaminants that are detected in our drinking water. Other items that are tested, but are indicated as non-detects (meaning their amounts are so low, if at all present, that they are not detected during testing) include: Antimony, Beryllium, Cadmium, Chromium, Mercury, Selenium, Thallium, Aldicarb, Atrazine, Pentachlorophenol, Toxaphine, Benzene, Styrene, Vinyl Chloride, and Xylene, just to name a few.

Thousands of water quality tests are performed annually to ensure that you are receiving the best possible quality of drinking water. Additional tests, including inorganic substances, disinfection byproducts,

radioactive substances, unregulated contaminants, microbiological, volatile organic and synthetic organic substances which include pesticides and herbicides, are conducted on a three to five year cycle.

Utility Commission Meets Monthly

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). Members of the Commission are: President Jim Tipple, Secretary Ed Gale, Commissioners George Million, Roger Otto and Sam Rebman.

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 any item placed on the agenda for Commission consideration, please contact Deb Geier at 715-261-6533 two weeks prior to the next scheduled meeting.

Meeting agendas and minutes of prior meetings are available on the City of Wausau website at www.ci.wausau.wi.us.

Employees Complete Supervisory Course

Robert Thompson and Deb Geier were among City supervisors who were recently presented with Gold Certificates for completion of the Certificate in Supervision course sponsored by Cities and Villages Mutual Insurance Company (CVMIC). The Course, which was provided at no cost to the City, offered comprehensive training in employment law, customer service, liability issues and numerous other managerial topics. Dick Boers was presented with a Silver Certificate for completing half the program.

What Do These Terms Mean?

MCL, ppm, ppb, pCi/l? What do the terms in the table on pages 4-5 mean?

The information provided in the tables on pages 4 and 5 contain many terms and abbreviations that may be unfamiliar. To help you better understand, we've provided the following definitions.

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

PPM - Parts Per Million or milligrams per liter (mg/l) - one part per millions corresponds to one minute in two years or a single penny in \$10,000.

PPM - Parts Per Billion or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

pCi/l - Picocuries per liter - a measure of radioactivity.

MCL - 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.

MCLG - Maximum Contaminant Level Goal - the "goal" (MCLG) is a 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.

TCR - Total Coliform Rule.

ND - None Detected.

MCLs are set at a very stringent level. 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.

Did You Know??

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 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 productions, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban storm water runoff and residential users.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum productions, 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 operations.

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 Pipes Affect Water Quality

The City of Wausau has many older homes that were constructed when lead plumbing materials were commonly used. Lead pipes are sometimes found in homes built before about 1930, most homes built before about 1965 have lead service lines between the house and the water main, and lead solder was used with copper pipes up to 1984. Even today, lead can be found in some new brass fixtures.

Lead is not found in our groundwater or water in the City distribution mains but is absorbed from lead service lines and lead plumbing materials. We recommend that residents with homes built before 1984 flush their waterline before using water for cooking or drinking. It takes time for the water to absorb lead so the idea is to use water that has not been in contact with lead plumbing materials for more than a few hours.

Adequately flushing the water line can require running 1 to 2 gallons of water to draw fresh water from the water main. It would not be necessary to run as much water if the home does not have a lead service line or if water has recently been used elsewhere in the house, to flush a toilet or wash clothes for example.

Wausau Water Works continues to monitor the corrosion potential of our drinking water to minimize the amount of lead absorbed from household plumbing.

Call 715-261-6530 if you have questions regarding lead in your drinking water.

Test Your Water Smarts - Win a Prize

As part of our 125th anniversary celebration, here's another way for Wausau residents to learn more about water, and possibly win a prize. Complete the test below and return to Wausau Water Works by September 1, 2010. All correct responses will be put into a drawing for a special prize package.

1. Water is the only substance found on earth naturally in three forms. True or False
2. Does water regulate the earth's temperature? Yes or No
3. At what temperature does water freeze?
4. At what temperature does water vaporize?
5. How long can a person live without food? How long can a person live without water?
6. How much of the human body is water?
7. How much of the earth's surface is water?
8. How much water must a person consume per day to maintain health?
9. Of all the earth's water, how much is in oceans or seas?
10. How much of the world's water is frozen and therefore unusable?
11. How much of the earth's water is suitable for drinking water?
12. Is it possible for me to drink water that was part of the dinosaur era?
13. How much water does the average residence use during a year?
14. How much water does an individual use daily?
15. What does a person pay for water on a daily basis?

Name _____

Address _____

City/State/Zip _____

Phone _____

Return entry to Wausau Water Works, 407 Grant Street, Wausau, WI 54403

Water Works Rate Schedule

Water Rates: Effective 7/1/10

Quarterly Service Charge (based on size of water meter)

5/8 inch meter.....	\$ 15.45
3/4 inch meter.....	15.45
1 inch meter.....	24.72
1-1/4 inch meter	37.08
1-1/2 inch meter	43.26
2 inch meter.....	64.89
3 inch meter.....	117.42
4 inch meter.....	166.86
6 inch meter.....	315.18
8 inch meter.....	482.04
10 inch meter.....	707.61
12 inch meter.....	933.18

Plus Volume Charge below:

First 6,000 cubic feet used each quarter - \$1.69 per 100 cubic feet.
 Next 54,000 cubic feet used each quarter - \$1.53 per 100 cubic feet.
 Over 60,000 cubic feet used each quarter - \$1.16 per 100 cubic feet.

Wholesale Service (Brokaw)

Quarterly Charge \$167.00
 Volume Charge: \$1.46 per 100 cu. ft.

Sewer Rates: Effective 1/4/10

Quarterly Service Charge (based on size of water meter)

5/8 inch meter	\$ 15.01
3/4 inch meter	16.85
1 inch meter	21.71
1-1/4 inch meter	26.14
1-1/2 inch meter	30.67
2 inch meter	46.44
3 inch meter	77.76
4 inch meter	122.04
6 inch meter	235.44

Plus Volume Charge below:

All volume, as recorded by the water meter each quarter, shall be charged at the rate of \$2.03 per 100 cubic feet.
 Unmetered sewer rate is \$69.53 per quarter outside the City of Wausau.

Private Fire Protection: Eff. 3/1/06

(based on size of connection)

2 inch connection	\$ 12.00
3 inch connection	22.00
4 inch connection	37.00
6 inch connection	74.00
8 inch connection	117.00
10 inch connection	176.00
12 inch connection	256.00

Public Fire Protection: Eff. 7/1/10

(based on size of water meter)

5/8 inch meter.....	\$ 8.96
3/4 inch meter.....	8.96
1 inch meter.....	22.25
1-1/4 inch meter	32.75
1-1/2 inch meter	44.19
2 inch meter.....	71.07
3 inch meter.....	132.87
4 inch meter.....	222.48
6 inch meter.....	444.96
8 inch meter.....	704.52
10 inch meter.....	1056.78

Wholesale Public Fire Protection

(Brokaw) Quarterly Charge: \$2431.00

Payments must be received in the City of Wausau Customer Service Department, City Hall, by the 20th of each month. Payments received after the 20th of the month are subject to late payment charges in the amount of 1% of the outstanding balance.

Payments made at grocery stores, electronically, or through the mail, via the Milwaukee lockbox address should be made at least seven (7) days prior to the due date to ensure timely receipt.

Dlam nrawv tshaabxu nwav muaj lug tseemceeb heev nyob rua huv hws has txug cov dlej mej haus. Kwas it tub pab txhais rua koj, los nruj ib tug kws pab lug tham.
 Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

IMPORTANT WATER QUALITY
 INFORMATION ENCLOSED

407 Grant Street - Wausau, WI 54403-4783

