

La Crosse 2010 Water Quality Report

The La Crosse Water Utility is pleased to present you with its Annual Water Quality Report for 2010. This report provides a complete summary of water quality information from 2010 and also includes general information describing the city's water system, services and other activities of interest. The La Crosse Water Utility is committed to providing its customers with clear information describing water quality. Informed customers are strong allies.

During 2010, the Utility was in compliance with all U.S. Environmental Protection Agency (EPA) and State of Wisconsin drinking water health standards.

Our Water Supply

All water supplied for the City of La Crosse is drawn by wells from a shallow, unconsolidated sand and gravel aquifer. The aquifer is an impressive source of water, easily producing millions of gallons of water daily. The Water Utility operates thirteen active high capacity wells located generally south of the La Crosse River and on French Island. Wells are generally 100 to 160 feet deep and have pumping capacities of up to 3,500 gallons per minute (gpm).

Water use in the city of La Crosse averaged 9.96 million gallons per day (MGD) in 2010, as compared to 10.14 MGD in 2009. Records show an all-time daily maximum of 37.3 million gallons of water produced in June of 1988. Normal water pressure to La Crosse customers ranges between 35 and 100 psi. A water system study completed in 1999 indicated that the existing water supply system has adequate capacity to meet projected demands for water at least through the year 2020. Fluoride and chlorine are added to the water as it is pumped into the distribution system. The Water Utility also uses a polyphosphate product at seven wells to control problems related to manganese in the water.

Water samples are routinely taken and analyzed for contaminants as required by Federal and State regulations. Unless otherwise noted, information shown in this report is for the period January 1 through December 31, 2010. This report contains many terms and abbreviations related to water quality that our customers may not be familiar with. A summary of terms, abbreviations and definitions is included in this report to help you better understand the information.

Who oversees the Water Utility?

The La Crosse Water Utility operates under the direction of the City's Board of Public Works and Common Council. The Board of Public Works usually meets weekly and considers a wide variety of issues related to Water Utility operations. Agendas for Board of Public Works meetings are posted outside the City Clerk's office in City Hall, and are also available on the City's Web Site: www.cityoflacrosse.org. If you have questions regarding this report or concerning the La Crosse water system, please call: **Mark Johnson, Utilities Manager, 400 La Crosse Street, La Crosse, WI 54601 (608-789-7536)**.

Why are there contaminants in my drinking water?

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 by visiting their Office of Water website at www.epa.gov/OW.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

The La Crosse Water Utility vigilantly tests and monitors the City's water supply to assure the end quality to consumers. Test results have detected some contaminants. The Water Quality Data Table section of this report provides information showing that all water quality criteria met or exceeded Federal and State requirements in 2010. **The EPA has determined that City of La Crosse water is safe at the levels detected.**

Tauj ntawn: La Crosse Water Utility Xov tooj: 608-789-7536

Tsab ntawv nov muaj lust seem ceeb qhia txog peb cov dej haus nyob hauv zo La Crosse no.

Yog nej muaj teeb meem txog dej haus hu rau tus xov tooj no 608-789-7536.

Water quality at the wells.

Samples are taken periodically (as required by an annual sampling schedules issued by DNR) at City wells to monitor concentrations of several common indicators. The information shown below shows ranges of results of water samples taken directly from ten wells in 2008, and three additional wells in 2009. Wells are scheduled to be re-sampled and tested again in 2011, in accordance with sampling requirements provided by the DNR.

Indicator	Range of Results	Average
Alkalinity	134 to 297 ppm	232 ppm
Aluminum	0 to 0.049 ppm	0.004 ppm
Calcium	45 to 91 ppm	76.5 ppm
Chloride	7.3 to 112 ppm	53.7 ppm
Hardness	148 to 340 ppm	281 ppm
Iron	0 to 0.2 ppm	0.05 ppm
Magnesium	11.9 to 35.1 ppm	27.6 ppm
Manganese	0.001 to 0.62 ppm	0.11 ppm
pH	6.8 to 7.5 S.U.	7.11 S.U.
Total Dissolved Solids	199 to 590 ppm	410 ppm

Water Quality Data Table

The Water Quality Data Table that follows lists all drinking water contaminants detected and the most recent sample date. The EPA or the DNR allows the Water Utility to monitor for certain contaminants less than once per year because concentrations of these contaminants do not change frequently.

This is a required Public Notice with important information about your drinking water.

The Water Utility is required to monitor drinking water for specific contaminants on a regular basis. Results of regular monitoring indicate whether or not your drinking water meets health standards. During the last quarter (October 1 – December 31) of 2010, the Utility missed one coliform bacteria sample at municipal Well 25, so there was no sample result to verify water quality as compared to the health standard. There were no special precautions required as a result of the missed sample. Coliform bacteria samples taken before and after the missed sample were in full compliance with the health standard, and there is no history of positive coliform bacteria samples from that well.

The missed sample was an oversight on the part of the Water Utility. The problem was immediately corrected and a follow-up sample taken. An additional checklist procedure has been implemented to prevent similar sampling issues in the future.

If you have any questions regarding the safety of drinking water in La Crosse please contact Mark Johnson at the Water Utility office, 400 La Crosse Street, La Crosse, WI 54601; Phone: 608-789-7536.

Ongoing Water Utility Projects, Issues and Activities:

- Effective January 1, 2010, the cost for Public Fire Protection (PFP) was moved from the City's general expense budget to a fixed user charge based on meter size. The Water Utility page of the City web site includes information explaining Public Fire Protection charges.
- The Water Utility is in the process of implementing a water rate increase. New water rates (charged quarterly) that will go into effect on or about August 1, 2011, are shown below. Sewer charges are in addition to water charges.

Meter Size	Qtrly Fixed	Qtrly PFP	Meter Size	Qtrly Fixed	Qtrly PFP	Meter Size	Qtrly Fixed	Qtrly PFP
5/8"	\$22.50	\$8.25	1-1/2"	\$69.00	\$41.10	6"	\$342.00	\$411.00
3/4"	\$22.50	\$8.25	2"	\$99.00	\$66.00	8"	\$546.00	\$657.00
1"	\$39.00	\$20.70	3"	\$159.00	\$123.00	10"	\$768.00	\$984.00
1-1/4"		\$30.30	4"	\$216.00	\$207.00	12"	\$990.00	\$1311.00

Fixed charges and Public Fire Protection (PFP) charges are based on the size of the meter:

Usage charges are based on the amount of water used based on water meter readings. Water usage is billed based on the number of "units" used. One unit = 100 cubic feet = 748 gallons of water

The first 5,000 cubic feet (50 units) of water is billed at \$1.02 per unit.

The next 70,000 cubic feet (700 units) of water is billed at \$0.82 per unit

The next 225,000 cubic feet (2,250 units) of water is billed at \$0.75 per unit

Over 300,000 cubic feet (3,000 units) of water is billed at \$0.52 per unit

- The Water Utility flushes the entire water system annually to purge naturally occurring minerals and sediments that accumulate over time. These materials do not pose a health hazard but can discolor the water when the system is disrupted. Most system flushing is done at night, which allows use of wells that are normally off during the day and makes almost the full system capacity available for flushing. Night flushing has been very successful in significantly reducing daytime problems when water demand is highest. Please contact the Water Utility office with questions related to water system flushing and especially related to the night flushing procedure.
- The treatment method using a polyphosphate additive to sequester or "tie-up" iron and manganese has been very successful in preventing customer problems related to discolored water. The Water Utility continues to work with its chemical supplier to optimize the treatment program and to evaluate new, possibly more effective additives. Please contact the Water Utility office with questions related to this water treatment method.
- The Water Utility will be starting a residential water meter replacement program in 2011 that will include a cross-connection control (CCC) program. This program requires scheduling an appointment to enter properties, access meters, and complete the required work. It is important that meters and control valves are accessible for meter exchanges and remain accessible at all times, and not just for access by the Water Utility. In the event a pipe bursts inside your home, quick and easy access to the shutoff valves may save extensive water-related damage to your property. The residential CCC program is something new and is required by DNR regulation; a non-residential CCC program is already in-place. **Additional information describing the new residential cross-connection control program is also available on the Water Utility page of the City web site (www.cityoflacrosse.org).**
 - Properties with compliant private wells were issued new five-year permits in 2008. The Utility is also following-up with enforcement for active and inactive private wells that are not in compliance with state code and City ordinances.
- The Water Utility continues to do well in water taste test contests that are usually conducted during state-wide conferences. La Crosse recently placed first in the taste contest sponsored by the Wisconsin Rural Water Association at its 2011 spring conference.
- Please visit the Water Utility page of the City web site (www.cityoflacrosse.org) for additional information or contact the Water Utility office (608-789-7536) with questions.

Water Quality Data Table

Contaminants (units)	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Inorganic Contaminants								
Arsenic (ppb)	0	10	0.6 (average)	n/d	2.0	2008*	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2	2	0.07 (average)	0.048	0.104	2008*	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cadmium (ppb)	5	5	0.0 (average)	n/d	1.0	2008*	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	100	100	1.0 (average)	n/d	2.6	2008-2009*	No	Discharge from steel and pulp mills; Erosion of natural deposits; Corrosion of household plumbing systems.
Fluoride (ppm)	4	4	0.05 (average)	n/d	0.17	2010	No	Erosion of natural deposits; Water additive which promotes strong teeth.
Mercury (ppb)	2	2	0.2 (average)	n/d	0.4	2008-2009*	No	Erosion of natural deposits; discharge of refineries and factories; runoff from landfills; runoff from cropland.
Nickel (ppb)	100	100	1.25 (average)	n/d	4.70	2008*	No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
Nitrate [measured as Nitrogen] (ppm)	10	10	4.40 (average)	n/d	4.80	2010	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen] (ppm)	1	1	0.067 (average)	n/d	0.304	2008-2009*	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (ppb)	50	50	0.9 (average)	0.3	2.0	2008*	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Sodium (ppm)	NR	NR	22.2 (average)	4.60	52.10	2008-2009*	No	Erosion of natural deposits; Leaching
Thallium (ppb)	0.5	2	0.4 (average)	n/d	0.8	2008*	No	Leaching from ore-processing sites; discharge from electronics, glass and drug factories.
Unregulated Contaminants								
Bromodichloro-methane (ppb)	NR	NR	0.98 (average)	n/d	7.3	2010	No	Sample Information Range reflects all samples from wells and distribution system. Range reflects all samples from wells and distribution system. Range reflects all samples from wells and distribution system. Range reflects all samples from wells and distribution system. All samples from wells. Range reflects all samples from wells and distribution system.
Bromoform (ppb)	NR	NR	0.23 (average)	n/d	2.7	2010	No	
Chloroform (ppb)	NR	NR	1.29 (average)	n/d	14.0	2010	No	
Dibromochloro-methane (ppb)	NR	NR	0.78 (average)	n/d	7.5	2010	No	
Sulfate (ppm)	NR	NR	19.92	8.12	31.00	2008-2009*	No	
Trichlorofluoro-methane (ppb)	NR	NR	0.04 (average)	n/d	0.2	2010	No	
Volatile Organic Contaminants								
Tetrachloroethylene (ppb)	0	5	1.25 (average**)	n/d	1.40	2010	No	Typical Source Discharge from factories and dry cleaners. Discharge from metal degreasing sites and other factories. Discharge from industrial chemical factories. Discharge from metal degreasing sites and other factories. By-product of drinking water chlorination; samples from distribution system.
Trichloroethylene (ppb)	0	5	0.92 (average**)	n/d	1.00	2010	No	
cis-1,2-Dichloroethylene (ppb)	70	70	0.24 (average**)	n/d	0.28	2010	No	
1,1,1-Trichloroethane (ppb)	200	200	0.19 (average**)	n/d	0.20	2010	No	
TTHMs (ppb) [Total Trihalomethanes]	0	80	20.3 (average)	11	25	2010	No	
Radioactivity								
Combined Uranium (ppb)	0	30	0.8	0.34	0.77	2009***	No	Typical Source Erosion of natural deposits. Erosion of natural deposits. Erosion of natural deposits. Erosion of natural deposits.
Gross Alpha (Excl R & U) (pCi/l)	0	15	2.5	-0.1	2.5	2009***	No	
Gross Alpha (Incl R & U) (pCi/l)	NR	NR	2.8	0.44	2.8	2009***	No	
Radium (226 + 228) (pCi/l)	0	5	1.8	0.66	1.8	2009***	No	
Disinfection Byproducts								
HAA5 (ppb) [Haloacetic Acid]	60	60	2.5 (average)	1.6	3.8	2010	No	Typical Source By-product of drinking water chlorination; samples from distribution system.

* Next scheduled sample in 2011.

** Represents the highest average value from any individual sample site.

*** Four-quarter composite sampling completed in 2009.

Continued...

Water Quality Data Table — *continued*

Contaminant(s) (units)	MCLG	AL*	Your Water	# of Samples greater than AL*	Sample Date	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper (ppm)	1.3	1.3	0.97	0	2008*	No	Erosion of natural deposits; Leaching; Corrosion of household plumbing systems; from wood preservatives. Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0	15	2.2	0	2008*	No	

* Next scheduled samples in 2011.

Microbiological Contaminants:	Total 2010 samples from sites in the water distribution system	769					*Please see the Public Notice information in the Ongoing Water Utility Projects, Issues and Activities section of this Report.
	Number of coliform detects in 2010 distribution system samples	0					
	Total 2010 samples from water system production wells	51*					
	Number of coliform detects in 2010 production well samples	0					

Synthetic Organic Chemicals No water samples for synthetic organic chemicals were taken in 2010

Volatile Organic Chemicals—Water system samples taken in 2010 produced No Detects for these chemicals:

Benzene, Bromobenzene, Bromomethane, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloromethane, o-Chlorotoluene, p-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene (O-), 1,3-Dichlorobenzene (M-), 1,4-Dichlorobenzene (P-), 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropene, 1,3-Dichloropropene, Ethyl Benzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, Vinyl Chloride, Xylene Total.

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Nitrates: Nitrates in drinking water at levels above 10 ppm is a health risk for infants of less than six 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.

Radon: Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 Picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

Terms and Abbreviations used in this report:

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.

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.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to consume 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.

***AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow. 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 information on the number of sites or the actions taken to reduce these levels, please contact the Water Utility office.

Variations & Exemptions (V & E): State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Non-Detects (n/d): Laboratory analysis indicates the constituent is not present.

Not-Regulated (NR): State or EPA has not established a limit.

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

Parts per billion (ppb), or Micrograms per liter (µg/l): One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000.

Picocuries per liter (pCi/l): Picocuries per liter is a measure of the radioactivity in water.

Total Coliform Rule (TCR): Refers to EPA regulations for microbiological standards.