La Crosse 2009 Water Quality Report

The La Crosse Water Utility is pleased to present you with its annual Water Quality Report for 2009. This report provides a complete summary of water quality information from 2009 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 2009, 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 about 10.14 million gallons per day (MGD) in 2009, as compared to about 10.35 MGD in 2008. 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 at all wells 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, 2009. 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 2009. **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 schedule issued by DNR) at City wells to monitor concentrations of several common indicators. The following information reflects ranges of results of water samples taken directly from ten wells in 2008, and three additional wells in 2009:

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.

Water Quality Data Table

Contaminants (units)	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
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	0.69 (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	1. 06 (average)	1.2	.09	2009	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	4.7	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	5.26 (average)	0.37	5.42	2009	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)	4.6	52.1	2008-2009*	No	Erosion of natural deposits; Leaching
Thallium (ppb)	0.5	2	0.3 (average)	n/d	0.8	2008*	No	Leaching from ore-processing sites; discharge from electronics, glass and drug factories.
Unregulated Contaminants								**Sample Information**
Bromodichloro-methane (ppb)	NR	NR	0.45 (average)	n/d	4.65	2009	No	Range reflects all samples from wells and distribution system.
Bromoform (ppb)	NR	NR	0.05 (average)	n/d	1.36	2009	No	Range reflects all samples from wells and distribution system.
Chlorodibromo-methane (ppb)	NR	NR	0.40 (average)	n/d	6.29	2009	No	Range reflects all samples from wells and distribution system.
Chloroform (ppb)	NR	NR	0.74 (average)	n/d	10.7	2009	No	Range reflects all samples from wells and distribution system.
Sulfate (ppm)	NR	NR	19.92	8.12	31.00	2008-2009*	No	All samples from wells.
Volatile Organic Contaminants								**Typical Source**
Tetrachloroethylene (ppb)	0	5	1.40 (average**)	n/d	1.82	2009	No	Discharge from factories and dry cleaners.
Trichloroethylene (ppb)	0	5	0.65 (average**)	n/d	0.84	2009	No	Discharge from metal degreasing sites and other factories.
TTHMs (ppb) [Total Trihalomethanes]	0	80	14.41 (average)	9.35	17.4	2009	No	By-product of drinking water chlorination; samples from distribution system.
Radioactivity								**Typical Source**
Combined Uranium (ppb)	0	30	0.8	0.34	0.77	2009***	No	Erosion of natural deposits.
Gross Alpha (Excl R & U) (pCi/l)	0	15	2.5	-0.1	2.5	2009***	No	Erosion of natural deposits.
Gross Alpha (Incl R & U) (pCi/l)	NR	NR	2.8	0.44	2.8	2009***	No	Erosion of natural deposits.
Radium (226 + 228) (pCi/l)	0	5	1.8	0.66	1.8	2009***	No	Erosion of natural deposits.
Disinfection Byproducts								**Typical Source**
HAA5 (ppb) [Haloacetic Acid]	60	60	3.00 (average)	0.49	5.16	2009	No	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.
Lead (ppb)	0	15	2.2	0	2008*	No	Corrosion of household plumbing systems; Erosion of natural deposits.

* Next scheduled samples in 2011.

Microbiological Contaminants:	Total 2009 samples from sites in the water distribution system	760
	Number of coliform detects in 2009 distribution system samples	0
	Total 2009 samples from water system production wells	53
	Number of coliform detects in 2009 production well samples	0

Synthetic Organic Chemicals **No water samples for synthetic organic chemicals were taken in 2009.**

Volatile Organic Chemicals—Water system samples taken in 2009 produced No Detects for these chemicals:
Benzene, Bromobenzene, Bromomethane, Carbon Tetrachloride, Chlorobenzene, 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, cis-1,2-Dichloroethylene, 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.

Variances & 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.

City of La Crosse Water Utility
400 La Crosse Street
La Crosse, WI 54601

Ongoing Water Utility Projects, Issues and Activities:

- Information regarding the Water Utility and other City departments is available on the City of La Crosse web page **(www.cityoflacrosse.org).**
- Use of City fire hydrants is allowed **only** under the conditions of the Water Utility's Hydrant Use Policy. This policy is available on the City of La Crosse web page or by contacting the Water Utility office. If you observe ANY suspicious activity involving a fire hydrant or any part of the water system, please report this immediately to the Water Utility or to the Police Department.
- Effective in 2010, the Council approved a change in the City budget that moved the cost for Public Fire Protection (PFP) 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 additional information explaining Public Fire Protection charges and this change.
- The last water rate increase was implemented as of April 1, 2002. It is likely that the Water Utility will need to request Council approval to apply for a rate increase within the next year. Current water rates (charged quarterly), including the PFP charges, are shown below. Sewer charges are in addition to water charges.

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

Meter Size	Qtrly Fixed	Qtrly PFP	Meter Size	Qtrly Fixed	Qtrly PFP	Meter Size	Qtrly Fixed	Qtrly PFP
5/8″	$16.50	$7.95	2″	$69.00	$63.00	8″	$348.00	$636.00
3/4″	$16.50	$7.95	3″	$111.00	$120.00	10″	$516.00	$954.00
1″	$27.00	$19.95	4″	$150.00	$201.00	12″	$750.00	$1272.00
1-1/2″	$48.00	$39.75	6″	$237.00	$399.00			

Usage charges reflect the amount of water used based on what the water meter records. 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 $0.75 per unit. The next 70,000 cubic feet (700 units) of water is billed at $0.66 per unit. The next 225,000 cubic feet (2,250 units) of water is billed at $0.60 per unit. Over 300,000 cubic feet (3,000 units) of water is billed at $0.39 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. We are interested in customer comments 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, more effective additives. If you have questions related to this water treatment method, please contact the Water Utility office.
- The Utility is continuing with its water meter replacement 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 Water Utility will also implement a residential cross-connection control (CCC) program in 2011 to coordinate with meter replacement. The CCC program is required by DNR regulation; a CCC program is already in-place for non-residential properties. **Watch for information included with upcoming utility bills to further explain the details of this new program for residential customers.** Information 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.
- Please check the Water Utility page of the City web site for information related to one company's tactics to sell home water treatment equipment.
- City ordinances require that each dwelling or other building used for human habitation has an individual connection for water service. A policy is in-place to address locations where properties share water service laterals. Under the policy, water service is extended to these locations when (1) any of the affected properties is sold, (2) a street project is planned for the location, or (3) a problem occurs with the shared service. Installation of new water services usually includes assessment of a portion of the costs to the property owner. Property owners should contact the utility office if they have reason to believe they share a water service with another property, and/or requirements for individual connections.
- The Water Utility has fared well in water taste test contests, sponsored by the Wisconsin Rural Water Association and the Wisconsin Water Association, over the past few years, scoring one first place and four second places finishes.
- The La Crosse Water Utility was included in Phase 2 of the USEPA's Unregulated Contaminant Monitoring Rule. Under the rule, various utilities collected samples of water which were analyzed for the presence of currently-unregulated contaminants of interest. Through two rounds of water samples, none of the contaminants were detected in the La Crosse water supply.

Please contact the Water Utility office at 789-7536 regarding this information, or with any other questions.