

2011 Water Quality Report for the City of Rockford

This report addresses the quality of the drinking water, delivered to our customers, during the calendar year 2011. Included are details about where your water comes from, what is in the water, and how it compares to Federal Environmental Protection Agency (EPA) and State Department of Environmental Quality (MDEQ) standards.

Your water comes from 3 groundwater wells located in the S.E. section of the City. After the water is drawn from these wells, it is pumped into a water treatment facility nearby where the iron is removed through aeration and filtration. A disinfectant (chlorine solution) is added to the water for protection against microbial contaminants in our storage tanks and nearly 30 miles of distribution piping. In addition, fluoride is injected into the water to protect against dental caries (tooth decay). An ortho-phosphate is added to protect against lead and copper leaching into your drinking water from household plumbing and fixtures. In 2003 the DEQ performed a source water assessment for the City of Rockford. This assessment found that the production wells have a moderate susceptibility to contamination based on our source of water and possible sources of contamination within the wellhead protection area. For more information or a copy of this report please contact Dennis Brinks at 616-866-0560. During this source water assessment we also initiated a Wellhead Protection Plan for the city, which can be very extensive, and is designed to protect the source of our drinking water. Information pamphlets will be posted at City Hall with regards to definitions and results of this plan. One part of Wellhead Protection involves tritium monitoring. Before the 1950's, rainwater had naturally occurring levels of Tritium, about 5 to 10 TU (Tritium Units). Following nuclear weapons testing in 1954, levels in excess of 1000 TU were detected, and are not uncommon. Tritium analysis may be used to estimate the time surface water entered the ground water system and the susceptibility of the ground water system to contamination. Since our water is below 2 TU, it is considered "not vulnerable" and the water we drink is considered to be older than 1954.

- **Contaminants and their presence in 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 **EPA's Safe Drinking Water Hotline (800-426-4791)**.
- **Vulnerability of sub-populations:** 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 systems 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, from Surface Water sources and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).
- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 a 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 stormwater 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 and residential uses.
 - **Radioactive contaminants**, which are naturally occurring or may be the result of oil and gas production and mining activities.
 - **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 stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants allowed in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants which we detected during the 2011 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, data presented in this table is from testing done January 1 – December 31, 2011. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- **Maximum Contaminant Level Goal (MCLG):** 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.
- **Maximum Contaminant Level (MCL):** 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.
- **N/A:** Not applicable. **ND:** not detectable at testing limit. **ppb:** parts per billion or micrograms per liter. **ppm:** parts per million or milligrams per liter. **pCi/l:** picocuries per liter (a measure of radioactivity). **TU:** tritium units (a measure of radioactivity).
- **AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Maximum residual disinfectant level goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Maximum residual disinfectant level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Regulated Contaminant	MCL	MCLG	Highest Level Detected	Sample Date (If not in '11)	Violation Yes / No	Typical Source of Contaminant
Chlorine (ppm)*	4	4	0.62	Low- High Range .04 – 1.22 2011	No	Water additive used to control microbes
Fluoride (ppm)	4	4	1.0	8/10/2011	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.30	8/10/2011	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Haloacetic Acids (ppb)	60	N.A.	3.24	(7/28/2010)	No	By-product of drinking water chlorination
(ppb) Total Trihalomethanes	80	N.A.	17.5	(7/28/2010)	No	By-product of drinking water chlorination
Special Monitoring and Unregulated Contaminant **			Level Detected	Sample Date (If not in '11)	Typical Source of Contaminant	
Tritium (TU)	NA	< 1	1.62	(8/29/2007)	No	Erosion of natural deposits, and Nuclear weapons testing in 1954
Sodium (ppm)			11.9	8/10/2011	Erosion of natural deposits	

* These values are based on the Running Annual Average (RAA) of the Bacteriological Sample Sites.
** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Contaminant Subject to AL	Action Level	90% of Samples ≤ This Level	Sample Date (If not in '11)	Number of Samples Above AL	Range Low - High	Major sources in drinking water	Health effects language
Lead (ppb)	15	< 3	(7/28/2010)	1	<3 - 20	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level 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
Copper (ppb)	1300	468	(7/28/2010)	0	69 - 808	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and component associated with service lines and home plumbing. The City of Rockford 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. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://water.epa.gov/drink/info/lead/index.cfm>.

Monitoring and Reporting Requirements: The DEQ and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2011.

We invite public participation in decisions that affect drinking water quality. The City of Rockford holds monthly City Council meetings every 2nd Monday at 7:00pm. For more information about your water, or the contents of this report, contact Dennis Brinks at 616-866-0560, or dbrinks@rockford.mi.us. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.