

2013 JOLIET DRINKING WATER QUALITY REPORT

Este informe contiene información muy importante. Tradúscalo ó hable con alguien que lo entienda bien.

Where can I get more information or provide comments?

For general questions:

Department of Public Utilities
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-4230
Hours: 8:00 AM - 4:30 PM

For maintenance questions or to report water emergencies:

Department of Public Utilities
Phone: (815) 724-4220
Hours: 24 Hours

For billing questions:

Customer Service
150 W. Jefferson Street
Joliet, IL 60432
Phone: (815) 724-3820
Phone hours: 8:00 AM - 4:00 PM
Window hours: 8:00 AM - 4:30 PM

EPA Safe Drinking Water Hotline:

Phone: (800) 426-4791
<http://water.epa.gov/drink/index.cfm>

Dear City of Joliet Water Customers,

The City of Joliet is pleased to report, that in 2013, our drinking water met all standards as established by the USEPA and IEPA. Tap water was tested according to all drinking water regulatory standards and the City is able to report we did not have any violations in the past year.

This Consumer Confidence Report is required by the Safe Drinking Water Act (SDWA) and is intended to inform all water customers about the quality of the drinking water provided to them. Additional information about our water is provided in this report as well as outside sources for additional information.

Your comments about this report are welcomed to help us improve it in future years. Contact information for the City of Joliet Department of Public Utilities can be found in this brochure or by visiting our website at www.jolietwater.com.

Sincerely,

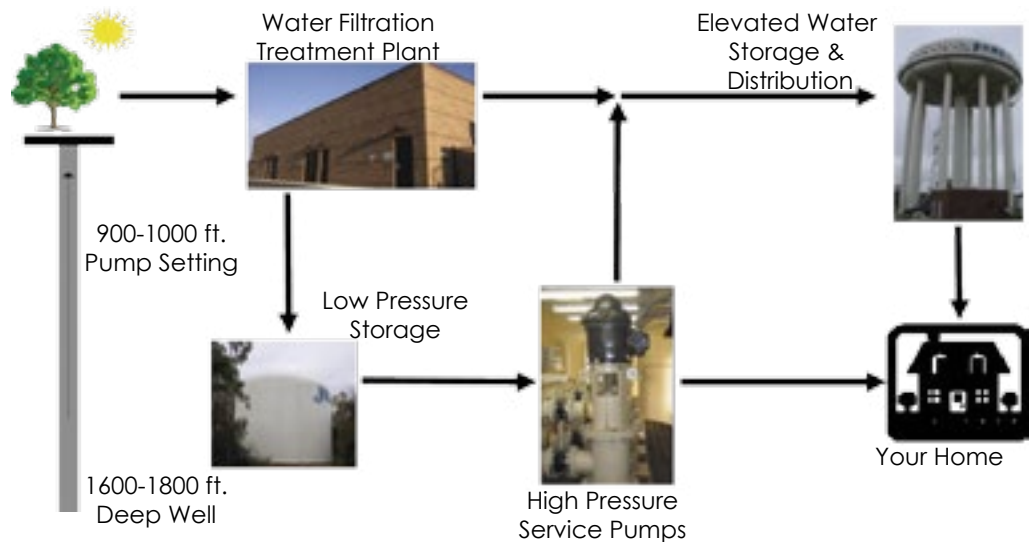
James E. Eggen, P.E.
Director of Public Utilities
City of Joliet

WHERE DOES YOUR WATER COME FROM?

The City of Joliet draws its groundwater supply from twenty-one deep (bedrock) wells (pumping from 1,000 feet below the surface) and five shallow (gravel) wells (pumping from 80 feet below the surface) located throughout the City. The source water naturally contains radium, iron, manganese, fluoride, and other minerals. The City of Joliet has invested in the construction of eleven water treatment plants to remove the naturally occurring radium from the water supply. All water delivered in 2013 met the federal and state guidelines for safe drinking water.

The water is treated using a Hydrous Manganese Oxide (HMO) Treatment process. HMO chemical is added to the water which binds with the radium like a magnet. Then, the treatment equipment removes the combined HMO chemical and radium. This process removes up to 90% of the radium as well as iron and manganese, which contribute to other water quality issues.

WATER SYSTEM DIAGRAM



Before the water is sent to the distribution system it is treated with a blended ortho-phosphosphate for corrosion control. This reduces rusty water in the distribution system and provides a barrier between the water and metal pipes in your home or business. Sodium hypochlorite (NaClO) is also added for disinfection of the water. Disinfection chemicals are required by the EPA, and sodium hypochlorite, while more expensive, represents the safest disinfection method for City workers and all water customers.

The treated water is then pumped to the distribution system and ultimately to your taps. For more information about the water treatment process or to schedule a group tour of the water supply or wastewater treatment facilities, please contact the Plant Operations Superintendent at (815) 724-3675.



Emergency Outage Notification:

The City of Joliet, Department of Public Utilities, utilizes NIXLE.COM to send outage notifications. In the event of an emergency which requires water to be turned off, the City will send out a text message or e-mail alert prior to the outage. It is free to sign up at WWW.NIXLE.COM and all water customers are encouraged to register to receive notices.

WATER QUALITY

In order to ensure tap water is safe to drink, the USEPA prescribes regulations that limits the amount of certain contaminants in water provided by public water supply systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 USEPA's Safe Drinking Water Hotline (800) 426-4791.

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

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 can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Because of this, some level of treatment is required for all water.

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 may 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 may be naturally occurring or be the result of oil and gas production and mining activities.

SYSTEM MANAGEMENT

The Joliet public water supply is owned by the City of Joliet. The City of Joliet Mayor and City Council establish the policies that control the operations of the water supply. The public is welcome to attend regular City Council meetings on the first and third Tuesday of every month at 6:30 p.m. in the City Council Chambers at the Joliet Municipal Building, 150 West Jefferson Street, Joliet, Illinois. If you would like to address the City Council at a meeting, please contact the City Clerk at (815) 724-3780.

SOURCE WATER ASSESSMENT

The Safe Drinking Water Act (SDWA) has established the criteria for determining the vulnerability of source water to potential sources of contamination. To determine Joliet's susceptibility to groundwater contamination, a Well Site Survey and a Source Inventory, performed by Illinois Rural Water Association, inside the recharge areas were conducted. During the survey of Joliet's source water protection area, Illinois EPA and Illinois Rural Water Association staff recorded potential sources, routes or possible problem sites within the minimum setback zones of 200 or 400 feet and within the 1,000 foot maximum setback zones around the wells. The tool used to apply these criteria is the source water assessment. The source water assessment for our water supply was prepared by the Illinois EPA. The City of Joliet's source water assessment is as follows:

"The Illinois EPA considers the gravel wells of this facility to be susceptible to Synthetic Organic Contaminant (SOC) contamination and does not consider the bedrock wells to be susceptible to Inorganic Contaminant (IOC), Synthetic Organic Contaminant (SOC) or Volatile Organic Contaminant (VOC) contamination. This determination is based on a number of criteria including: monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, the available hydrogeologic data on the wells, and the land-use activities in the recharge area of the wells." The Illinois Environmental Protection Act established minimum protection zones for Joliet's active community water supply wells. The twenty-one bedrock wells have minimum setback zones of 200 feet and the five gravel wells have minimum setback zones of 400 feet. These minimum protection zones are regulated by the Illinois EPA. In addition to the minimum setback zones, five-year recharge areas have been delineated for the five gravel wells. To request additional information on our community's water supply source water assessment, please contact the Department of Public Utilities at (815) 724-4220 or via our website at www.jolietwater.com.

GLOSSARY OF TERMS

N/A	not applicable	mg/L	milligrams per liter	pCi/L	picocuries per liter, used to measure radioactivity
µg/L	micrograms per liter	ppb	parts per billion	ppm	parts per million; or one ounce in 7,350 gallons of water
AL	Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.				
MCL / SMCL	Maximum Contaminant Level, or 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. A Secondary MCL is provided as a goal and is not enforceable.				
MCLG	Maximum Contaminant Level Goal, or 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.				
MRDL	Maximum Residual Disinfectant Level, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.				
MRDLG	Maximum Residual Disinfectant Level Goal, or 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.				
HMO	Hydrous Manganese Oxide, or the treatment chemical used for the removal of radium from drinking water.				
EPA	Environmental Protection Agency, or the regulatory agency which establishes standards for drinking water at the Federal level (USEPA) or at the State level (IEPA).				

LEAD AND COPPER

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 components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, metals from pipes and brass faucets will leach into the water. 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 choose 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 USEPA's Safe Drinking Water Hotline (800) 426-4791 or at <http://water.epa.gov/drink/index.cfm>.

LEAD AND COPPER	MCLG	AL	90TH PERCENTILE	NO. SITES OVER AL	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Lead	0	15 ppb	8.11 ppb	1	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	1.3	1.3 ppm	0.556 ppm	0	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

STATE REGULATED CONTAMINANTS

In addition to enforcing the Federal Safe Drinking Water Act, the Illinois EPA enforces all state regulations. Iron and manganese stain bathroom fixtures and impart objectionable tastes to water in high concentrations. Sodium in drinking water with a concentration greater than 20 mg/l is of concern to persons on a sodium restricted diet of 500 mg per day or lower. For these reasons, the Illinois EPA has elected to regulate these contaminants.

STATE REGULATED CONTAMINANTS (The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.)	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Sodium There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about this level of sodium in the water.	71.9	71.9 - 71.9	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; Used in water softener regeneration
Iron This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.	0	0	N/A	1.0	ppm	No	Erosion of natural occurring deposits

INORGANIC CHEMICALS (IOCs)

Inorganic chemicals (IOCs) include salts, metals, minerals, and nutrients that can be naturally occurring or which can result from storm water runoff, industrial or domestic wastewater discharges, or farm activities. Because our source of drinking water is groundwater, a significant amount of naturally occurring minerals are dissolved in the water. These dissolved minerals can account for the "hardness" of the water. Joliet water has an average hardness of 300 parts per million as calcium carbonate (or approximately 18 grains per gallon).

INORGANIC CONTAMINANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Barium	0.0164	0.0164 - 0.0164	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	1.32	1.32 - 1.32	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	0	0 - 0	10	10.0	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits

DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Disinfection of drinking water is one of the major public health advances in the 20th century. One hundred years ago, typhoid and cholera epidemics were common throughout American cities and disinfection was a major factor in reducing these epidemics. However, the disinfectants themselves can react with naturally occurring materials in the water to form unintended by-products that may pose health risks.

DISINFECTANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MRDLG	MRDL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Chlorine	1.7	1.0 - 2.11	4	4	ppm	No	Water additive used to control microbes

RADIONUCLIDES

Radionuclides are man-made or natural elements that emit radiation. A picocurie per liter is a unit of radioactivity. A curie is the amount of radioactivity in a gram of radium. A picocurie is one trillionth of a curie.

RADIOACTIVE CONTAMINANTS	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Uranium	0	0 - 0	0	30	µg/l	No	Erosion of natural deposits
Gross alpha excluding radon & uranium	6	0 - 7.2	0	15	pCi/L	No	Erosion of natural deposits
Combined radium 226/228	4	.9 - 4.2	0	5	pCi/L	No	Erosion of natural deposits

Automatic Meter Reading / Leak Detection:

The City of Joliet, Department of Public Utilities, is pleased to announce that the Automatic Metering upgrades are near completion. Automatic Meter Reading (AMR) allows the City to collect meter reads without sending someone to physically read the water meter once a month. Approximately 500 accounts, less than 1% of Joliet customers are left to convert to a new water meter and radio transmitter to collect the reads. There is a significant cost to manually collect the reads at these scattered locations. These remaining locations will be charged an extra fee to cover the additional cost until such time that a new meter is installed.



All new water meters have a "leak detector" dial on it. Check to see if your meter has a "leak detector" on it. It is a small dial or indicator to show the meter is moving. If you suspect you have a leak in your home or business a leak detector is very useful in problem solving. When you are sure no water is being used, check the dial on the water meter and make sure it is not turning. The slightest movement means that water is being registered by the meter. A meter will not turn without water flowing through it. Check for any drips or other signs of leakage. Start with the toilet. You can turn the valve off at the toilet, then check the red dial. Another way to check a toilet for a leak is by placing a dye tablet or food coloring in the tank. Let it sit for a while then look in the bowl. If you see coloring in the bowl, the toilet is leaking past the seal. Continue isolating areas until you have narrowed down the source of the leak.

FREQUENTLY ASKED QUESTIONS FOR EMERGING DRINKING WATER ISSUES

Fluoride:

The addition of fluoride in drinking water is considered one of the top 10 public health achievements of the 20th century. Many ground water systems, like Joliet, have naturally occurring fluoride in the water and subsequently, the City does not add fluoride. The MCLG for fluoride is 4.0 ppm. The EPA has set this level of protection based on the best available science to prevent potential health problems. Some studies have suggested this MCL is too high and a secondary standard (SMCL) of 2.0 mg/L is intended as a guideline in areas which have high levels of naturally occurring fluoride. The level of the SMCL was set based upon a balancing of the beneficial effects of protection from tooth decay and the undesirable effects of excessive exposures leading to discoloration. The EPA is initiating review of the maximum amount of fluoride allowed in drinking water. Future treatment for the removal of fluoride from the City's water is not expected. To read more, visit <http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm>

Hexavalent Chromium (Chromium-6):

Refers to chemical compounds containing Chromium in the +6 oxidation state and is generally a waste product from multiple manufacturing processes. This compound was made famous by the movie *Erin Brockovich*. While some forms of Chromium are beneficial in small amounts, Chromium-6 has been found to be a carcinogen. An MCL of 0.1 ppm is set for total Chromium. While it is not currently regulated, MCLs as low as 0.1 ppb for Chromium-6 have been proposed. Testing of Joliet's multiple well supplies has levels well below these limits.



Endocrine Disruptors (Pharmaceuticals):

Endocrine disruptors are chemicals that may interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological, and immune effects in both humans and wildlife. A wide range of substances, both natural and man-made, are thought to cause endocrine disruption, including pharmaceuticals. Endocrine disruptors may be found in many everyday products - including plastic bottles, metal food cans, detergents, flame retardants, food, toys, cosmetics, and pesticides. There are numerous studies to determine whether exposure to endocrine disruptors may result in human health effects. Research shows endocrine disruptors may pose the greatest risk during prenatal and early postnatal development when organ and neural systems are forming. Surface water supplies are most susceptible to these contaminants. The main source of these contaminants are from the general public disposing of unused medications in the wastewater (toilet) stream. Once introduced in the wastewater, the compounds end up in the surface water supply since they cannot be removed using current wastewater treatment technology. The most important key here is DO NOT dispose of unused medications in the sink or toilet. Since Joliet currently uses deep aquifer wells for its water supply, our drinking water is not subject to this. *All unused over-the-counter (OTC) and prescription medications may be disposed of at a City of Joliet Police Station drop box. Some pharmacies accept unused OTC medications, please contact them individually for details.*

Future Water Supply(ies):

Joliet currently gets all of its water from groundwater supplies. The backbone of our supply is deep well aquifers (over 1,000 feet deep). At this time, the deep aquifers represent the highest quality water available to the City. The water level of the aquifers continue to drop and there are concerns by some experts that wells will go dry in the future. It is a reality that the groundwater supply will need to be supplemented with an additional surface water supply. The addition of surface water supplies then allows for new contaminants to be introduced into the water system. The most important thing that can be done now is to conserve your current water usage. The need for conservation is real and participation is needed by all water customers. Water conservation not only reduces your current water bill, it also keeps the overall water rate low by deferring the costs to develop new supplies. To learn more, visit the City of Joliet website or search the internet with the key words "Water Conservation".

Thank you for your cooperation in watering your lawn according to the water conservation program.

The following water restrictions are in place for the City of Joliet water customers year-round per City of Joliet Code of Ordinances, Sec. 31-126:

Lawn watering may only occur between 6:00 a.m. and 10:00 a.m. or 6:00 p.m. and 10:00 p.m. at even numbered addresses on even numbered days and at odd numbered addresses on odd numbered days. No watering is allowed at all at even numbered addresses on odd numbered days or at odd numbered addresses on even numbered days. The only exception to the odd/even water restriction applies to homeowners and/or businesses who intend to install sod. To receive proper permit for this exception, customers should contact the Department of Public Utilities, Monday through Friday between the hours of 8:00 a.m. and 4:30 p.m. at (815) 724-4220, prior to sod installation. Your cooperation in not watering your lawn outside the restricted hours is necessary because of the large volumes of water used and to maintain water reserves for public health needs and fire protection. There is no restriction in filling swimming pools, watering trees, shrubs, flowers, or vegetable gardens.

Visit our website at www.jolietwater.com