

2014 Water Quality Report

Proudly prepared by: City of Galesburg
Water Division
P.O. Box 1387
Galesburg, IL 61402—1387
309/345-3649
www.ci.galesburg.il.us

The Water Division is committed to providing our customers with the best water possible, which is safe to drink and aesthetically pleasing. In 2014, as in previous years, your drinking water was tested in accordance to health standards set by regulatory agencies. Those agencies are both the United States and Illinois Environmental Protection Agency, USEPA and IEPA respectively.

As our customer, we would like you to fully understand the efforts we make to provide safe drinking water. It is our belief that an informed customer is our best ally. This report summarizes the quality of water that we provided for the period of January 1 to December 31, 2014., including details about where your water comes from, what it contains, and how it compares to Federal and State health standards.

We want our valued customers to be informed about their water quality. If you have any questions about this report or concerns about our water system, please contact Richard Nelson, Water Superintendent at 345-3650. You are also welcome to attend the City Council meetings regularly scheduled on the first and third Monday of each month.

Visit the city's website at www.ci.galesburg.il.us for more details on the Water Division.

WHERE YOUR WATER COMES FROM

In the 1950's the City of Galesburg, with the vision to provide better water from a more reliable source, made the decision to abandon its deep wells in Galesburg and start obtaining groundwater from an aquifer located near Oquawka, Illinois. An aquifer is an under-ground geological formation that contains water. A collector well and three drilled, gravel-packed wells withdraw the groundwater from the aquifer along the Mississippi River.

The City maintains two of its deep wells located at its treatment facility in Galesburg. These wells are for emergency use only.

HOW YOUR WATER IS TREATED

In 2010 a new water treatment facility was completed near our wells. In the effort to supply you with the safest drinking water possible, our treatment process involves several steps. The water is filtered to remove iron and manganese which, when present, will stain laundry and plumbing fixtures. The water is chlorinated for disinfection of bacteria and viruses that may be present. Fluoride is added to help promote strong teeth. A phosphate inhibitor is added for corrosion control. The concentrations of these additives are monitored daily in our laboratory to ensure the proper dosages are being added. The laboratory is also state certified to test water for bacteria.

SOURCE WATER ASSESSMENT SUMMARY

SUSCEPTIBILITY TO CONTAMINATION:

To determine the City of Galesburg's susceptibility to groundwater contamination, the Illinois EPA reviewed an engineering report for the City of Galesburg.

Based on the above document and water quality monitoring data, this community water supply's source water is susceptible to SOC and VOC contamination. Also, as a result of monitoring conducted at the wells and entry point to the distribution system, the land use activities, and the source water protection initiatives by the city, the City of Galesburg's source water is not susceptible to IOC contamination.

Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the City of Galesburg's wells are not vulnerable to viral contamination. This determination is based on the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydro-geologic barrier exists that prevents pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. However, having stated this, the "U.S. EPA is proposing to require States to identify systems in karst, gravel, and fractured rock aquifer systems as sensitive and these systems must perform routine source water monitoring." Because some of the community's wells are constructed in an unconfined sand and gravel aquifer, the Illinois EPA evaluated the well hydraulics associated with the City of Galesburg's well field. The wells range between 74 and 2094 feet overburden. This should provide an adequate degree of filtration to prevent the movement of pathogens into the wells.

SOURCE WATER PROTECTION EFFORTS:

The Illinois Environmental Protection Act provides minimum protection zones of 400 and 200 feet for the City of Galesburg's wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to the source water, the facility has implemented a wellhead protection program which includes a management and education committee, source water protection management strategies, and contingency planning. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA, which allows a reduction in the SOC and VOC monitoring. The outcome of this monitoring reduction has saved the facility considerable laboratory analysis costs.

To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

CONTAMINANTS – EDUCATIONAL INFORMATION

1. 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 materials, and can pick up substances resulting from the presence of animals or from 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 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 may also come from gas stations, urban storm water runoff and septic systems; and

Radioactive contaminants, which may be naturally occurring or be the results of oil and gas production and mining activities.

2. 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 (1-800-426-4791).
3. In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.
4. 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 (1-800-426-4791).
5. 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, 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 or at <http://www.epa.gov/safewater/lead>.

Printed May 2015

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Produced by the City of Galesburg
Public Works / Water Division
55 W. Tompkins Street
Galesburg, IL 61401



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Permit No. 25
Galesburg, IL

Your water is monitored on a regular basis for regulated and non-regulated contaminants. This table is a list of a contaminants which were detected in your water.

**2014 WATER QUALITY DATA
REGULATED CONTAMINANTS DETECTED**

LEAD AND COPPER (UNIT OF MEASUREMENT)	ALG	AL	90TH PERCENTILE	NUMBER OF SITES OVER AL	VIOLATION	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINANT
Copper (ppm)	1.3	1.3	0.970	1 of 30	No	9/30/2012	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	0	15	14	3 of 30	No	9/30/2012	Corrosion of household plumbing systems; Erosion of natural deposits.
CONTAMINANT (UNIT OF MEASUREMENT)	MCLG	MCL	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	VIOLATION	DATE OF SAMPLE	TYPICAL SOURCE OF CONTAMINANT
INORGANIC CONTAMINANTS							
Arsenic (ppb)	0	10	1.8	N/A	No	8/6/2012	Erosion of natural deposits; Run off from orchards; Run off from glass and electronics production waste.
Barium (ppm)	2	2	0.075	N/A	No	8/6/2012	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	0.944	N/A	No	8/6/2012	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen) (ppm)	10	10	0.09	N/A	No	8/6/2014	Runoff fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
DISINFECTANTS and DISINFECTION BY-PRODUCTS							
Chlorine (ppm)*	MRDLG = 4	MRDL = 4	0.8	0.6-1	No	2014	Water additive used to control microbes.
THMS [Total Trihalomethanes] (ppb)*	N/A	80	72	42.06-75.99	No	N/A	By-product of drinking water chlorination.
HAAs [Total Haloacetic Acids] (ppb)*	N/A	60	29	21.8-38	No	N/A	By-product of drinking water chlorination.
RADIOACTIVE CONTAMINANTS							
Gross Alpha excluding Radon and Uranium (pCi/L)	0	15	1.84	N/A	No	8/10/2009	Erosion of naturally occurring deposits.
STATE REGULATED CONTAMINANTS							
Iron (ppm)	N/A	1.000	0.074	N/A	No	8/6/2012	Erosion of naturally occurring deposits.
Manganese (ppb)	150	150	9.9	N/A	No	8/6/2012	Erosion of naturally occurring deposits.
Sodium (ppm)	N/A	N/A	13	N/A	No	8/6/2012	Erosion of naturally occurring deposits. Used as water softener.
Zinc (ppm)	5	5	0.014	N/A	No	8/6/2012	Naturally occurring; Discharge from metal.

UNREGULATED CONTAMINANT MONITORING RULE 3 (UCMR3)

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. A maximum contaminant level (MCL) for these substances has not been established by either state or federal regulations, nor has mandatory health effects language.

CONTAMINANT DETECTED (UNIT OF MEASUREMENT)	HIGHEST LEVEL DETECTED	RANGE OF DETECTIONS	DATE OF SAMPLE	TYPICAL SOURCE
Chromium -Total (ppb)	0.245	N/A	10/14/2013	Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chromium -6 (ppb)	0.261	N/A	10/14/2013	Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Strontium (ppb)	100.791	5.709- 100.791	10/14/2013	Naturally occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode ray tube televisions to block x-ray emissions.
1,4-Dioxane (ppb)	0.12831	N/A	10/14/2013	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos, cleaning agent, surface coating, and adhesive agent.
Perfluorooctanoic Acid (ppb) (PFOA)	0.02338	N/A	10/14/2013	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films.

VIOLATION TABLE			
CONSUMER CONFIDENCE RULE			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
VIOLATION TYPE	VIOLATION BEGIN	VIOLATION END	
CCR Adequacy/Availability/Content	07/01/2014	2014	
VIOLATION EXPLANATION			
We failed to provide you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water. The 2013 report did not include the mandatory statement about lead, health effects language and ways to reduce exposure.			

DEFINITION OF TERMS – For Water Quality Data

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.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety
Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water
Level Found: This column represents an average of sample result data collected during the Consumer Confidence Report (CCR) calendar year. In some cases, it may represent a single sample if only one sample was collected.
Range of Detections: This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.
Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
N/A: Not applicable
nd: Not detectable at testing limits.
*** Avg** – Regulatory compliance with some MCLs are based on running annual average of monthly and quarterly samples.

Unit of Measurement:
ppm – Parts per million, or milligrams per liter, or one ounce in 7,350 gallons of water.
ppb – Parts per billion, or micrograms per liter, or one ounce in 7,350,000 gallons of water.
pCi/L – Picocuries per liter

WATER QUALITY DATA TABLE FOOTNOTES

COPPER	This 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 Wilsons Disease should consult their personal doctor.
LEAD	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.
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 1000 or more.
MANGANESE	This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more.
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.
ZINC	This contaminant is not currently regulated by USEPA. However, the state regulates.