

# Annual Drinking Water Quality Report

Cherry Valley  
IL 2010050

Annual Water Quality Report  
For the period of January 1, 2016 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the Cherry Valley water system to provide safe drinking water. The source of drinking water used by Cherry Valley is ground water. For more information regarding this report, contact: Chuck Freeman at 815-332-1269. Additionally, any and all public opinions can be voiced at Village Board meetings the 1<sup>ST</sup> and 3<sup>RD</sup> Tuesday of every month at 7:00PM. Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

## **Source of Drinking Water**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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 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 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 can be naturally occurring or be the result of oil and gas production and mining activities.

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 at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA 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.

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

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel free to call the Cherry Valley Village Hall at 815-332-3442. To view a summary version of the completed Source Water Assessments, including the 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>

#### **Source Water Assessment Availability.**

A Source Water Assessment summary is included below for your convenience.

Based on information obtained in a Well Site Survey published in 1989 by the Illinois EPA, several potential sources are located within 1,000 feet of the wells.

The Illinois EPA has determined that the Cherry Valley Community Water Supply's source water is not susceptible to 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; and available hydrogeological data on the wells.

Furthermore, in anticipation of the US EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Cherry Valley Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper siting conditions; a hydraulic barrier exists which should prevent 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. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics was not evaluated for this system ground water supply.

The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for your wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to source water, the Facility has implemented a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA which allows a reduction in monitoring. The outcome of this monitoring reduction has saved the community considerable laboratory analysis costs.

#### **Level 1 Assessment Reported**

In September 2016, Cherry Valley's water system exceeded a treatment technique. What this means is that (2) of our routine distribution coliform samples tested positive for total coliform. We took repeat samples as required by the Illinois EPA within 24 hours, and those samples all came back negative. Additionally, we determined that we may have had a bad batch of sample bottles, discarded the remainder of those, and purchased new sample bottles.

## 2016 Regulated Contaminants Detected

### Lead and Copper Definitions:

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. 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 are responsible for providing high quality drinking water, but 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 the 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>.

**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.

### Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	2		0	N	Naturally present in the environment.

### LEAD and COPPER

Lead & Copper	Date Sampled	MCGL	Action Level	90th Percentile	# sites Over AL	Units	Violations	Likely Source of Contamination
Copper	2016	1.3	1.3	0.39	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**Definitions:** The following tables contain scientific terms and measures, some of which may require explanation.

**Avg:** Regulatory compliance with some MCLs is based on running annual average of monthly samples.

**Level 1 Assessment:** A level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (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.

**mrem:** millirems per year ( a measure of radiation absorbed by the body)

**ppm:** parts per million or milligrams per liter - one ounce in 7,350 gallons of water.

**ppb:** parts per billion or micrograms per liter - one ounce in 7,350,000 gallons of water.

**na:** not applicable.

### Regulated Contaminants

Disinfection and disinfection by-products	Date Collected	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2016	1	0.6 – 1.37	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)*	2016	2	2.3 – 2.3	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	13	13.1 – 13.1	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used in calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Inorganic Contaminants	Date Collected	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	08/06/2015	0.16	0.16 - 0.16	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	08/06/2015	1.04	1.04 – 1.04	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	08/06/2015	0.2	0.2 - 0.2		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	08/06/2015	5.7	5.7 – 5.7	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	08/06/2015	5.2	5.2 – 5.2			ppm	N	Erosion from naturally occurring deposits; Used in water softener regeneration
Zinc	08/06/2015	0.012	0.012 – 0.012	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal.
Radioactive Contaminants	Date Collected	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226 / 228	01/08/2015	4.15	4.15 - 4.15	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon & uranium	01/08/2015	3.9	3.9 – 3.9	0	15	pCi/L	N	Erosion of natural deposits.

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