



**CITY OF MORRISON WATER DEPARTMENT - IL1950350**  
**Water Quality Report**  
**For the period of January 01 to December 31, 2018**  
**HOW SAFE IS OUR WATER?**

In 2018, as in years past, your tap water met all USEPA and state drinking water health standards. Our system vigilantly safeguards its groundwater supply, and we are able to report that the department had no violations of a contaminant level or of any other water quality standard during the past year. This report summarizes the quality of water that we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because informed customers are our best allies. We invite you to participate in the decision making processes that affect drinking water quality. Please feel welcome to attend any of our regularly scheduled City Council meetings and work sessions which are held at 7:00 PM on the second and fourth Mondays of each month at the Whiteside County Board Room, 200 E. Knox Street. The City of Morrison Water Department will notify you immediately if there is any reason for concern about your drinking water.

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Morrison Water Department to provide safe drinking water for our residents.

The source of drinking water used by the City of Morrison is Ground Water.

For more information regarding this report, contact:

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó 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 can dissolve naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 at (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.

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.

**Contaminants that may be present in source water include:**

- Micro 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 can be naturally occurring or be the result of oil and gas production and mining activities.

**Availability of Morrison Source Water Assessment**

Below is a summary of the IEPA source water assessment of Morrison's water system. The full report is available for viewing at City Hall and Odell Public Library.

**Source Water Assessment**

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 Morrison 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 hydrogeologic data on the wells.

Furthermore, in anticipation of the US EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Morrison 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 sitting 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 a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this system ground water supply.

**Source Water Protection Efforts**

The Illinois Environmental Protection Act provided 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.

**Vulnerability waiver**

Due to favorable monitoring history, aquifer characteristics, and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver renewal for SOCs at Tap2 – Well number 11910 (Well #4). No monitoring for SOCs were required, between January 1, 2014 through December 31, 2016.

**2018 Water Quality Data**

**- Definition of Terms -**

**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.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**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 allowed 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 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.

**Date of Sample:** If a date appears in the column, the Illinois EPA requires monitoring for this contaminant less than once per year because of the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

**Nd:** Not Detectable at testing limits

**n/a:** Not Applicable

**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, used to measure radioactivity

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

**Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs 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.

**Distribution**

**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 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 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>.

Lead & Copper	Date of Sample	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# of Sites Over AL	Units	Violation	Likely Sources of Contamination
Copper	2017	1.3	1.3	0.18	0	ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	2017	0	15	5.1	1	ppb	No	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.

**Regulated Contaminants**

<b>Disinfectants &amp; Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Chlorine	12/31/2018	.9	0.3 - 0.9	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Total Trihalomethanes (TTHM)	2018	7	7.45 - 7.45	No goal for the total	80	ppb	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Arsenic	2015	1	1 - 1	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2018	.077	.077 - .077	2	2	Ppm	No	Discharge of drilling waste; Discharged from metal refineries; Erosion of natural deposits
Fluoride	2018	0.407	0.47 - 0.47	4	4.0	Ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Iron	2018	0.028	0.028 - 0.028	N/A	1.0	ppm	No	This contaminant is not currently not regulated by USEPA. However, the state regulates erosion of natural deposits.
Manganese	2018	1.6	1.6 - 1.6	150	150	ppb	No	This contaminant is not currently regulated by the USEPA. However, the state regulates erosion of natural deposits.
Sodium	2018	4.9	4.9-4.9	N/A	N/A	ppm	No	Erosion from naturally occurring deposits; used in water softener regeneration.
Nitrate (Measured as Nitrogen)	2018	0.08	0.08 - 0.08	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Radioactive Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Gross Alpha excluding radon and uranium	2018	8.64	0 - 8.64	0	15	pCi/L	No	Erosion of natural deposits
Combined Radium 226/228	2018	3.77	3.55 - 3.77	0	5	pCi/L	No	Erosion of natural deposits

**Water Quality Data Table Footnotes**

**Triennial or Less Frequent Monitoring Footnote**

The state requires us to monitor certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

**GROSS ALPHA (pCi/L)**

The MCL for Alpha emitters is 15 pCi/L. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

**COMBINED RADIUM (pCi/L)**

The MCL for Combined Radium is 5 pCi/L. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

**IRON**

This contaminant is not currently regulated by USEPA. However, the state has set and 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 the level is greater than 20 mg/l, and you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

**About the Data**

An MCL is 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. If a facility exceeds the MSL, the facility must immediately investigate treatment options to reduce the level of the contaminant in the water supply. MCL's are first based on a Reference Dose (RfD) which carries a very low risk of causing adverse health effects. The RfD is obtained by taking the maximum daily dose of a toxic substance that does not produce any observable adverse health effects. This no-observable-adverse-effect level (NOAEL) dosage is divided by safety factors (SF), to obtain the reference dose. Regulatory agencies generally use safety factor values of between 10 to 1,000.

**What this Table Means**

As you can see by the table, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State Requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is SAFE at these levels.

We, at the Morrison Water Department, work around the clock to provide top quality water to every tap. We ask that all our customers help us protect water sources, which are the heart of our community, our way of life and our children's future.

**Additional Data Available**

If you would like additional data please contact City Hall at the address below.

**This report will not be mailed to customers**

Additional copies are available at

City Hall

200 West Main St.

Morrison, IL. 61270