

**Annual Drinking Water Consumer Confidence Report  
City of Mayville Water Utility  
2012**

The Mayville Water Utility is pleased to provide you with this year's Consumer Confidence Report. We want to keep you informed about the excellent water and service we have delivered to you over the past year. Our goal is and always has been to provide you safe and dependable supply of drinking water.

It should be noted that in 2012 we did have a radium (226 + 228) MCL violation from our well #3 located on the corner of Walnut & Buchanan Streets. We are currently working with the DNR and MSA Engineering to bring the well within EPA compliance limits. 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. Construction of the radium removal system will begin in May 2013, and should be completed later this year.

If you have any questions about this report or concerning your water utility, please contact the City of Mayville Director of Utilities, Ron Wellner, at 920-387-7906. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Tuesday of each month, 7:00 p.m. at the Mayville Water/Wastewater Plant.

The Mayville Water Utility routinely monitors for constituents in your drinking water according to Federal and State Laws. The tables show the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2012. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

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 the 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 Environmental Protection Agency's safe drinking water hotline at 1-800-426-4791.

**SOURCE(S) OF WATER**

Source Id	Source	Depth (in ft)
2	Groundwater	794
3	Groundwater	797
4	Groundwater	800
5	Groundwater	810

## **EDUCATIONAL INFORMATION**

The sources of drinking water, both tap water and bottled water, includes 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 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 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, urban stormwater 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 stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

In this table you will find many abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

## Definition of Terms

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: 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.
MCLG	Maximum Contaminant Level Goal: 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.
MFL	million fibers per liter
MRDL	Maximum residual disinfectant level: 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.
MRDLG	Maximum residual disinfectant level goal: 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.
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/l)
ppb	parts per billion, or micrograms per liter (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water

### Number of Contaminants Required to be Tested

This table displays the number of contaminants that were required to be tested in the last five years. The CCR may contain up to five years worth of water quality results. If a water system tests annually, or more frequently, the results from the most recent year are shown on the CCR. If testing is done less frequently, the results shown on the CCR are from the past five years.

Contaminant Group	# of Contaminants
Disinfection Byproducts	2
Inorganic Contaminants	16
Microbiological Contaminants	1
Radioactive Contaminants	4
Synthetic Organic Contaminants including Pesticides and Herbicides	25
Unregulated Contaminants	4
Volatile Organic Contaminants	20

### Disinfection Byproducts

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2012)	Violation	Typical Source of Contaminant
TTHM (ppb)	80	0	1.2	.4- 1.2	07/13/2010	NO	By-product of drinking water chlorination

### Unregulated Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2012)	Violation	Typical Source of Contaminant
BROMODICHLOROMETHANE (ppb)	n/a	n/a	.30	.18- .30	07/13/2010	NO	n/a
BROMOFORM (ppb)	n/a	n/a	.34	nd- .34	07/13/2010	NO	n/a
CHLOROFORM (ppb)	n/a	n/a	.25	.23- .25	07/13/2010	NO	n/a
DIBROMOCHLOROMETHANE (ppb)	n/a	n/a	.31	nd- .31	07/13/2010	NO	n/a

Inorganic Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2012)	Violation	Typical Source of Contaminant
ARSENIC (ppb)	10	n/a	1	nd- 1	02/16/2011	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
BARIUM (ppm)	2	2	.110	.068- .110	02-16-2011	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
COPPER (ppm)	AL=1.3	1.3	.2200	0 of 20 results were above the action level.	06/28/2011	NO	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
FLUORIDE (ppm)	4	4	1.3	.3- 1.3	02/16/2011	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
LEAD (ppb)	AL=15	0	9.30	1 of 20 results were above the action level.	06/28/2011	*	Corrosion of household plumbing systems; Erosion of natural deposits
NICKEL (ppb)	100		3.2000	1.9000-3.2000	02/16/2011	NO	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)	10	10	.13	nd- .13		NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)	n/a	n/a	18.00	11.00-18.00	02/16/2011	NO	n/a

\* Systems exceeding a lead and/or copper action level must take actions to reduce lead and/or copper in the drinking water. The lead and copper values represent the 90th percentile of all compliance samples collected. If you want information on the NUMBER of sites or the actions taken to reduce these levels, please contact your water supply operator.

### Radioactive Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2012)	Violation	Typical Source of Contaminant
GROSS ALPHA, EXCL. R & U (pCi/l)	15	0	7.5	nd- 7.5	02/10/2011	NO	Erosion of natural deposits
GROSS ALPHA, INCL. R & U (n/a)	n/a	n/a	7.5	nd- 7.5	02/10/2011	NO	Erosion of natural deposits
RADIUM, (226 + 228) (pCi/l)	5	0	4.1	2.5-5.7		YES Ongoing	Erosion of natural deposits

### Health effects for any contaminants with MCL violations

Contaminant	Health Effects
RADIUM, (226 + 228)	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.

## Monitoring and Reporting Violations

Monitoring and reporting violations occur when a water system fails to collect and/or report results for State required drinking water sampling. "Sample location" refers to the distribution system, or an entry point or well number from which a sample is required to be taken.

Contaminant Group	Sample Location	Compliance Period Beginning	Compliance Period Ending
Microbiological Contaminants	Distribution System	07/01/2012	07/31/2012

Microbiological Contaminants that were missed include: Chlorine Free (Available); Chlorine Total Residual; Coliform (Tcr)

**Nitrates:** As a precaution we always notify physicians and health care providers in this area if there is ever higher than normal level of nitrates in the water supply.

Nitrate in drinking water at levels of 10 ppm is a health risk to infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your homes plumbing. If you are concerned about lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

"All sources of drinking water are subject to potential contamination by constituents that are naturally occurring in water or is man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials".

All drinking water, including bottled water, may reasonably be expected to contain at least small amount of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**Total Coliform:** The total coliform rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. There were no total coliform detects in 2012.

**Lead:** Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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 the 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 microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

Please call our office if you have any questions.

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