

ANNUAL DRINKING WATER QUALITY REPORT

NORTH MORGAN WATER COOP

IL1375050

Annual Water Quality Report for the period of January 1 to December 31, 2018

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by NORTH MORGAN WATER COOP is Purchased Surface Water.

For more information regarding this report contact:

Name: Rodney Becker

Phone: 1-217-204-6042

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

SOURCE OF DRINKING WATER

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. In some cases, the water may dissolve radioactive material. Water can also 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 system, agricultural livestock operations and wildlife;
- Inorganic contaminants, such as salts and metals, which may 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 byproducts of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff and septic systems; and

- Radioactive contaminants, which may 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 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 USEPAs Safe Drinking Water Hotline (1-800-426-4791).

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 (1-800-426-4791).

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>.

Source Water Information

Source Water Name	Type of Water	Report Status	Location
CC01- Blacks Lane Master Meter	Surface Water	Active	East of Jacksonville, near the intersection of Orchard Cove and Blacks Lane
CC02- Route 78 Master Meter	Surface Water	Active	NW of Jacksonville, along Rte. 78, West of Westgate Ave.
CC03- Master Meter (Virginia)	Ground Water	Active	South of Virginia, Along Virginia road, east of Petefish Rd.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please call 1-217-742-8559. To view a summary version of the completed Source Water Assessments, including: Importance of Source Waters, 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>.

North Morgan Water Coop purchases drinking water from the City of Jacksonville. The City of Jacksonville obtains its water from two lakes and three wells. Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion. Potential sources of pollution are also located near the well sites. Due to the presence of potential sources and the unconfined nature of the wells, Illinois EPA considers these wells to be susceptible to contamination.

North Morgan Water Coop purchases drinking water from the City of Virginia. The City of Virginia obtains its water from five wells. To determine Virginia's susceptibility to contamination, a Well Site Survey, published by the Illinois EPA in 1992, was reviewed. Based upon this survey, there are no potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Virginia's wells. However, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated additional sites with on-going remediation which may be of concern. Based upon this information, the Illinois EPA has determined that the Virginia community water supply's source water is susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculation for the wells. The land use within the recharge area of the wells was analyzed as part of this susceptibility determination. This land use includes agricultural properties.

2018 Regulated Contaminants Detected

Lead and Copper

Definitions:

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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2018	1.3	1.3	0.054	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2018	0	15	6.1	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Definitions:

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 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Regulated Contaminants

Disinfectants and Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2018	1	1-1.1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Five Haloacetic Acids (HAA5) ¹	2018	5	1.11-7.47	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM) ¹	2018	65	15.92-104.2	No goal for the total	80	ppb	No	By-product of drinking water chlorination.

¹ Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

Abbreviations:

n/a: not applicable

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)

ppm: parts per million or milligrams per liter (mg/L)

Note: Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

JACKSONVILLE, ILLINOIS IS A PARENT SUPPLY FOR THE NORTH MORGAN WATER COOP. THE FOLLOWING IS A WATER MONITORING DATA FROM JACKSONVILLE'S IEPA GENERATED CONSUMER CONFIDENCE REPORT.

City of Jacksonville Regulated Contaminants Detected in 2018 (collected in 2018 unless noted)

Coliform Bacteria							
MCL - Coliform	MCLG	Total Coliform Maximum Contaminant Level	Highest Number of Positive	MCL- Fecal Coli- form or E-Coli	Violation ?	Total # Positive E-Coli or Fecal Coliform Samples	Likely Source of Contaminant
Monthly Samples	0	1 positive monthly sample	1	0	No	0	Naturally present in the environment

Lead & Copper (Collection Date 8/8/2017)

	Lead Action Level (AL)	90th Percentile	# Sites Over (AL)	MCLG	Units	Violation ?	Likely Source of Contamination
Lead **	15	<1.0	0	0	ug/L	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper **	1.3	0.0055	0	1.3	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

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. The City of Jacksonville is responsible for providing high quality drinking water, but 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>.

Regulated Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contaminant
Disinfectants & Disinfection By-Products							
Free Chlorine	1.7	1 - 2	ppm	MRDLG = 4	MRDL=4	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	20	10.6 - 26.8	ppb	No goal for total	60	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	73	41 - 75	ppb	No goal for total	80	No	By-product of drinking water disinfection

*Not all sample results may have been used for 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 (Sodium is not currently regulated by the USEPA. However, the state has set an MCL for supplies serving a population of 1,000 or more.)							
Barium	0.006	0.006 - 0.006	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	0.74	0.621 - 0.742	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Iron	<0.010	<0.010 - <0.010	ppm	0	1	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits
Nitrate(measured as Nitrogen)	1	1.3 - 1.3	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	32	32 - 32	ppm			No	Erosion of naturally occurring deposits; used in water softener regeneration
Zinc	0.012	0.012 - 0.012	ppm	5	5	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal

Total Organic Carbon The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set , unless a TOC violation is noted in the violations section.

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Lowest monthly % meeting limit	0.3 NTU	100%	No	Soil Runoff
Highest single measurement	1 NTU	0.08	No	Soil Runoff

Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Radioactive Contaminants UNTREATED SOURCE WATER

Combined Radium 226/228 (Sample Date 9/6/2017)	1.778	0.906 - 1.778	pCi/L	0	5	No	Erosion of natural deposits
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**The state requires us to monitor for 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.

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

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples. **NTU:** The amount of turbidity in a water sample as measured by a nephelometric turbidimeter.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **pCi/L:** Picocuries per liter - a measure of radioactivity.

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.

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. **Na:** Not applicable

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

ppm: Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **ug/L:** Parts per billion.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level (MRDLG): 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.

VIRGINIA, ILLINOIS IS A PARENT SUPPLY FOR THE NORTH MORGAN WATER COOP.
THE FOLLOWING IS WATER MONITORING DATA FROM VIRGINIA'S IEPA GENERATED
CONSUMER CONFIDENCE REPORT.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2018	1.1	0.9 - 1.3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2018	7	7.2 - 7.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2018	16	15.9 - 15.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	01/23/2017	0.577	0.577 - 0.577	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	01/23/2017	0.0535	0.0535 - 0.0535		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2018	0.156	0.156 - 0.156	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	01/23/2017	9.39	9.39 - 9.39			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	12/01/2014	1.61	1.61 - 1.61	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	12/01/2014	1.8	1.8 - 1.8	0	15	pCi/L	N	Erosion of natural deposits.