Annual Drinking Water Quality Report

For the Calendar Year of 2015

For Water Customers in the Village and Town Water Districts of:

Mt. Morris, Leicester, Cuylerville, and the American Rock Salt/Groveland Water System

Public Water System Identification Numbers

Issued:

5/16

Village of Mt. Morris 2501023
Town of Mt. Morris 2500703
Village of Leicester 2501020
Town of Leicester 2501014
ARS/Groveland 2530018
Dept.

Prepared by David L. Bryson: Village of Mt. Morris Water

Introduction:

To comply with State regulations, the "parent" water system operated by the Village of Mt. Morris Water Department (which distributes water to the purchasing systems listed above) annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares with State standards.

If you have any questions about this report or concerning your drinking water, please feel free to contact David Bryson, Operator in Charge of Water Treatment for the Village of Mt. Morris at (585) 658-2331. Mr. Bryson can also supply contact numbers for the purchasing systems. You may also contact the Livingston County Health Department at (585) 243-7280. We encourage our valued customers to become informed and to feel secure concerning the state of their drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. Meetings are typically once a month at the Village Building the third Monday of the month at 7:00 pm. A monthly water report is provided each month for the board.

Where Does Our Water Come From?

In general, the sources of drinking water (both tap 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 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; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that your tap water is safe to drink, the State and the Environmental Protection Agency prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Federal Food and Drug Administration's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is Silver Lake in Wyoming County. During 2015, our system did not experience any restriction of our water source. A pump station near the Silver Lake outlet intermittently delivers raw water to the 5 million- gallon reservoir at the Water Treatment Plant. Although late summer algae blooms create some taste and odor removal problems, the quality of raw water is very good. Turbidities of around 1.0 NTU and pH ranges of around 8.00 are optimal for our treatment processes. Copper sulfate is added at the Lake to discourage algae growth.. Water from the reservoir then enters the treatment plant. Our treatment processes include coagulation using a solution of aluminum chloride hydroxide sulfate (a coagulant), clarification, mixed media filtration (anthracite, sand, garnet), corrosion control using blended phosphates, and disinfection using sodium hypochlorite. Finished water turbidities ranged between .05-.16 NTU's (nephelometric turbidity units), well below the allowable .3 NTU standard for 2015. Acceptable free available chlorine residuals (chlorine available to kill bacteria) are maintained in the clearwell (storage tank) and throughout the entire distribution systems to ensure inactivation of giardia lamblia cysts and bacteria. Treated water enters the distribution systems from the 1 million-gallon clearwell.

The NYS Department of Health has evaluated this Public Water System's susceptibility to contamination under the Source Water Assessment Program (SWAP), their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the *potential* for source water contamination. Elevated susceptibility ratings *do not* mean that source water contamination has or will occur for the public water system. The Village of Mt. Morris provides treatment and regular monitoring to ensure water delivered to customers meets all applicable standards.
SWAP Executive Summary for Silver Lake:
This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for pesticide, DPB precursors, microbials and phosphorous contamination. In addition, the elevated density of CAFOs (Concentrated Animal Feeding Operations) in the assessment area very likely adds to the potential for contamination. No permitted discharges are found in the assessment area. There are no noteworthy contamination threats associated with other discrete contaminant sources. Additional sources of potential contamination include: railroad and golf course.

Facts and Figures

The water systems serve:

(Approximate)

Leicester Town/ Cuylerville:	562
Leicester Village	438
Mt. Morris Village	3500
Mt. Morris Town	328
ARS/Groveland	100

Water Accountability:

(Approximate combined totals)

Amount of water treated	196,694,700 gallons
Amount of water sold (metered)	183,092,200 gallons
Amount of water unaccounted for	13,602,500 gallons

It should be noted that a substantial amount of unaccounted water includes filter backwashes, hydrant flushing, meter failures, fire protection use, clearwell flushing, draining and cleaning of tanks and the reservoir, process instrument supply, and other various Village uses. The remainder is leakage or unauthorized use.

In 2015, water customers were charged:

Within the Village of Mt. Morris Limits:

0-3,000 gallons per quarter = $42.50 (base charge)

$2.75 for each additional 1,000 gallons (11,000+$3.00/1,000)

Wholesale rate to the Village of Leicester:

$4.25per thousand gallons

Wholesale rate Town of Mt. Morris & ARS/Groveland systems:

$4.25 per thousand gallons

Town of Mt. Morris Water District #1

0-3,000 gallons per quarter = $40.00 (base charge)

$4.80 for each additional 1,000 gallons

Are There Contaminants In Our Drinking Water?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds, asbestos, and radioactivity. The table presented below depicts which compounds were *detected* in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

It should be noted that all 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 Water Hotline (1-800-426-4791 or the Livingston County Health Department (243-7280).

Detected Contaminant	Violation Yes/No	Date Of Sample	Level Detected (Avg/Max) (range)	Unit measure-ment	MCLG	Regulatory Limit (MCL,TT or AL)	Typical source of Contaminant
Radioactive:							
Gross Alpha	no	8/9/05	0.04+/- 0.50	pCi/l	0 pCi/l	MCL= 15 pCi/l	Erosion of natural deposits
Gross Alpha	no	12/13/05	2.23 +/- 0.99	pCi/l.	0 pCi/l	MCL= 15 pCi/l	Erosion of natural deposits
Radium 226	no	7/9/02	0.2(+-0.2)	pCi/l	0pCi/l	MCL=5 pCi/l	"
Radium 228	no	7/9/02	0.1(+-0.5)	PCi/l	0pCi/l	MCL=5pCi/l	"
Synthetic organic chemicals:							
Atrazine	no	6/25/15 9/29/15 11/19/15	.32 .30 .39	ug/l	3 ug/l	MCL= 3 ug/l	Run off from herbicide used on row crops
Bis(2-ethylhexyl)phthalate	no	6/25/15 9/29/15 11/19/15	1.1 <.6 .79	ug/l	0 ug/l	MCL= 6 ug/l	Used in plastic products; pvc,toys,upholstery, adhesives and coatings. Also used in inks,pesticides,cosmetics and vacuum pump oil
Inorganics:							
Asbestos*	no	12/27/05	0.09	MFL	7 MFL	MCL= 7 MFL	Decay of asbestos cement water mains; erosion of natural deposits
*above Sample collected from a small portion of the Village of Leicester's system							
Sodium* (below health effect	no	12/10/15	27.0	mg/l	N/A	No designated	Naturally occurring; road salt; water

language)						limits	softeners; animal waste
Chloride	no	12/10/15	54.0	mg/l	N/A	MCL= 250 mg/l	Naturally occurring or indicative of road salt contamination.
Fluoride	no	12/10/15	0.25	mg/l	N/A	MCL= 2.2 mg/l	Erosion of natural deposits, discharge from fertilizer and aluminum factories
Barium	no	12/10/15	0.022	mg/l	2 mg/l	MCL= 2 mg/l	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	no	12/10/15	1.9	ug/l	100 ug/l	MCL= 300 ug/l	Discharge from steel and pulp mills; erosion of natural deposits
Nickel	no	12/10/15	1.2	ug/l	N/A	N/A	N/A
Nitrate	no	12/10/15	0.32	mg/l	10 mg/l	MCL= 10 mg/l	Run off from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits
Iron	no	quarterly samples 2014	Avg.0.054 Max 0.068 Range 0.050-0.068	mg/l	.N/A	.3 mg/l	Naturally occuring
Manganese	no	quarterly samples 2014	Avg. 0.016 Max 0.027 Range 0.010-0.027	mg/l	N/A	.3 mg/l	Naturally occuring

*Water containing more than 20 mg/l of sodium should not be used for drinking by people on very restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets

Stage 2 Disinfection By Products:

Stage 2 Village of Mt. Morris

TTHM – Total trihalomethanes- site 1 and site 2	no	Sample dates: 2/19/15 5/19/15 8/18/15 11/19/15	**Site 1:** Avg. 41.75 Range:32-49 **Site 2:** Avg. 43.25 Range: 36-54	ug/l	0 ug/l	MCL= 80 ug/l	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when water contains large amounts of organic matter.
HAA-* Haloacetic acids site 1 and site 2	no	Sample dates: 2/19/15 5/19/15 8/18/15 11/19/15	**Site 1:*** Avg. 31.0 Range: 29-34 **Site 2:** Avg. 33.75 Range: 24-42	ug/l	0 ug/l	MCL= 60 ug/l	By-product of drinking water chlorination

*compliance is based on highest annual running average

Stage 2 Town of Leicester

TTHM	no	Sample dates: 2/18/15 5/5/15 8/4/15 11/3/15	Avg. 78.33 Range: 65-74	ug/l	0 ug/l	MCL= 80 ug/l	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when water contains large amounts of organic matter.
HAA	no	Sample dates: 2/18/15 5/5/15 8/4/15 11/3/15	Avg. 56.0 Range: 44-65	ug/l	0 ug/l	MCL= 60 ug/l	By-product of drinking water chlorination

Health Effects: some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

Stage 2 American Rock Salt, LCWSA*

TTHM-total	no	Sample	Avg.	ug/l	0 ug/l	MCL=	By-product of drinking

trihalomethanes		dates: 2/9/15 5/11/15 8/12/15 11/10/15	67.8425 Range: 27.37-77.0			80 ug/l	water chlorination
HAA-Haloacetic acids	no	2/9/15 5/11/15 8/12/15 11/10/15	Avg. 51.7 Range: 4-79.4	ug/l	0 ug/l	MCL= 60 ug/l	By-product of drinking water chlorination

Stage 2 Village of Leicester*

TTHM	no*	8/11/15 11/3/15	Avg. 50.0 Range: 34-66	ug/l	0 ug/l	MCL = 80 ug/l	By-product of drinking water chlorination
HAA	no*	8/11/15 11/3/15	Avg. 51.0 Range: 40-62	ug/l	0 ug/l	MCL = 60 ug/l	By-product of drinking water chlorination

Stage 2 Town of Mt. Morris*

TTHM	no	2/10/15 5/12/15 8/11/15 11/17/15	Avg. 57.75 Range: 40-68	ug/l	0 ug/l	MCL = 80 ug/l	By-product of drinking water chlorination
HAA	no	2/10/15 5/12/15 8/11/15 11/17/15	Avg.51.0 Range: 31-55	ug/l	0 ug/l	MCL = 60 ug/l	By-product of drinking water chlorination

* Stage 2 compliance now based on quarterly monitoring/annual average

Lead and Copper:							
Lead	no	9/23-29 2014	8.1* Range: ND - 10.0	ug/l	0 ug/l	AL= 15 ug/l	Corrosion of household plumbing system; erosion of natural deposits
Copper	no	9/23-29 2014	.17* Range: 0.0074 - 0.21	mg/l	1.3 mg/l	AL= 1.3 mg/l	"

*The level presented represents the 90th percentile of the 20 sites tested for lead and copper. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system(s). In this case, 20 samples were collected at your water system(s) and the 90th percentile value was the eighteenth highest value. The action level for lead and copper were not exceeded in any of the samples collected.

Contaminant	**Violation Yes/No**	**Date of Sample**	**Level Detected**	**Unit measurement**	**MCLG**	**Regulatory Limit (MCL,TT, or AL)**	**Likely source of contaminatio n**
Microbiological Contaminants/Turbidity:							
Turbidity*	no	5/515	Max. - 0.16	NTU	N/A	<1.0 NTU (TT)	Soil runoff
Turbidity*	no	2015 (daily)	100% compliance	NTU	N/A	95% of samples <0.3 NTU (TT)	Soil runoff
Distribution Point Turbidity*	no	2014 (daily) Sept. 2015	Range .10-.34 Highest monthly Avg. .28	NTU	N/A	MCL= 5 NTU	Soil runoff
Disinfection by Product Precursors/ Total Organic Carbon (TOC)							
TOC : Source Water	no	monthly	avg: 5.11 range: 4.5-6.4	mg/l	N/A	N/A	Disinfection by product precursor
TOC: entry point	no	monthly	Avg: 2.41 Range: 2.0-2.8	mg/l	N/A	25-35% removal (TT)	"

*Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 5/5/15 (0.16 NTU). State regulations require that turbidity must not exceed 1NTU and that 95% of the turbidity samples collected must measure less than or equal to 0.3 NTU. All of the measurements collected in 2015 were less than or equal to 0.3 NTU. Five distribution turbidity samples are required at five different locations each week. Turbidity values in the distribution system may not exceed 5 NTU.

Definitions: Due to the scientific nature of water quality analysis, these tables may contain unfamiliar terms and abbreviations. The following definitions are provided to help you better understand the tables' content:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as possible.
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 Residual Disinfectant Level (MRDL): 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.
Maximum Residual Disinfectant Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system *must* follow.
Nephelometric Turbidity Unit (NTU): A measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person
Milligrams per Liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million -ppm).
Micrograms per Liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
Picocuries per Liter (pCi/L): A measure of the radioactivity in water.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

What Does This Information Mean?

As you can see by the table, the Villages of Mt. Morris and Leicester, the Town of Mt. Morris, and the ARS/Groveland water systems had no violations in 2015. Water is tested for coliform bacteria four times per month in the Village of Mt. Morris, and once per month in the Village of Leicester, the Townships of Leicester and Mt. Morris, and the ARS/Groveland system. We have learned through our testing that other contaminants have been detected; however, these contaminants were detected below the level allowed by the State. The Village of Mt. Morris Water Department is proud that your drinking currently water meets or exceeds all Federal and NY State requirements. The contaminants listed in the tables are only the constituents that were above *detectable* levels of the over 100 contaminants that were monitored and tested for.

Is Our Water System Meeting Other Rules That Govern Operations?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. Mt. Morris as well as all other purchase systems included in this report were in *compliance* with State requirements in 2015.

Do I Need To Take Special Precautions?

Although our drinking water meets or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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, Giardia and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).
Health Effects of TTHM: some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

Information on Lead in Drinking Water

In 2014 lead was not detected in the water leaving the treatment plant. It is possible for water to pick up lead from home plumbing solder or fixtures if it sits in the pipes for a long time but our testing indicates this is not a problem for our customers. However, due to problems some water suppliers have had with drinking water lead levels, the USEPA is requiring all water suppliers to include the following educational text in their annual water quality reports:
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. Our water system 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.

Information For Non-English Speaking Residents (Spanish)

Este informe contiene información muy importante sobre agua beber. Tradúzcalo ó hablecon alguien que lo entienda bien. This report contains very important information about your drinking water. Translate it or speak with someone who understands it.

Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- The need to conserve our natural resources is essential to the survival of human life and preservation of nature's ecosystem.
- Saving water reduces the cost of energy required to acquire and treat water.
- Saving water lessens the strain on the water system during dry spells, helping to avoid restrictions and meet fire fighting needs.

Here are but a few of the suggestions for water users to take an active role. You'll be surprised at how much you can save without hardship right in your own home.

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So it's wise to load it to capacity.
- Turn off the water while shaving and/or brushing your teeth.
- Check faucets for leaks. A repaired slow drip can save almost 6,000 gallons per year.
- Check your toilet for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. Losing around 100 gallons a day is common for these invisible toilet leaks.

System Improvements

- The Silver Lake intake structure was inspected and cleaned.
- A new residential water metering system is in use and meter replacements are on-going
- The Villages and Towns of Mt. Morris and Leicester flushed their systems.

Closing

Thank you for supporting your water department(s). We have been very successful in complying with ever increasingly stringent water quality standards. Our history of compliance and even a few taste contest victories are certainly indicative of the aesthetic quality of the water. The Mt. Morris Water Department has an open-door policy and encourages community input.

Feel free to call:

Mt. Morris Water Treatment Plant: (585) 658-2331
Livingston Co. Dept. of Health: (585) 243-7280
Liv. Co. Water/Sewer Authority: (585) 346-3523
Village of Mt. Morris:(585) 658-4160
Village or Town of Leicester:(585) 382-3699 or 382-3231 respectively
Town of Mt. Morris: (585) 658-3375