

ANNUAL DRINKING WATER QUALITY REPORT FOR 2013
VILLAGE OF LYONS, 76 WILLIAM ST., LYONS, NY
PUBLIC WATER SUPPLY No. 5801229;
TOWN OF LYONS, 43 PHELPS ST., LYONS, NY
GRIST MILL/WESTPHALL WATER DISTRICT PUBLIC WATER SUPPLY No.
5817537

To comply with State regulations, the Village of Lyons Water System along with the Town of Lyons Grist Mill / Westphal Water Districts will be annually issuing 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. Last year, we conducted 75 tests for contaminants. 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 to State standards.

If you have any questions about this report or concerning your drinking water, please contact Thomas Gowan, Water Distribution Operator, at the Village of Lyons at (315) 946-4531. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village or Town Board meetings. The Village Board meets on the second Tuesday of each month at 6.30 p.m. The Town Board meets on the last Wednesday of each month at 7 p.m. The Village Board meetings are held at 76 William St., Lyons, N.Y. The Town of Lyons Board meetings are held at 43 Phelps St., Lyons, N.Y.

Water Quality - How do you know your water is safe?

In general, 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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. 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 tap water is safe to drink the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The state Health Department's and the FDA's 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 a small amount 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 (1-800-246-4791)

Under the Safe Drinking Water Act (SDWA), the United States Environmental Protection Agency, (EPA), sets national limits on contaminant levels to ensure safety of your drinking water. A Maximum Contaminant Level Goal, (MCLG), is 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. A Maximum Contaminant Level, (MCL), is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible. In accordance with New York State regulations, the Village of Lyons routinely monitors your drinking water for various contaminants. Your water is tested for inorganic contaminants, nitrate, lead and copper,

volatile organic contaminants, synthetic organic contaminants and total trihalomethanes. Additionally, your water is tested for coliform bacteria a minimum of five times a month. The contaminants detected in your drinking water are included in the Table of Detected Contaminants. Something every regulation has in common is a requirement to notify the public if there is a regulation violation. If we violate a regulation, we are required to let you know. The EPA also requires water suppliers to monitor for unregulated contaminants to provide occurrence data for future regulations.

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised person such as a person with cancer undergoing chemotherapy, people who have undergone organ transplant, 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline, (800-426-4791)

In New York, the State Health Department is responsible for enforcing EPA's regulation. The State has the option, which it has used in several cases, to implement its own regulations if they are equivalent or more stringent than the EPA's. The State Health Department reviews and approves treatment plant and distribution system modifications as well as new construction. They also review all our operating and monitoring data for compliance on a monthly basis.

The Village of Lyons has one source of supply for its drinking water. We purchase water from the Wayne County Water and Sewer Authority. This connection is to the Newark Village Water System. The purchased water is treated before it is connected to the system with no further treatment or additions required.

The Village of Newark, New York uses Canandaigua Lake as its source of water. The New York State Department of Health has recently completed a Source Water Assessment of the Lake. This assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural land in the assessment area results in elevated potential for protozoa, phosphorous, DBP precursors, and pesticides contamination. There is also a moderate density of sanitary wastewater discharges, but the ratings for the individual discharges do not result in elevated susceptibility ratings. However, it appears that the total amount of wastewater discharge to the surface water in this assessment area is high enough to further raise the potential for contamination, (particularly for protozoa). There are no noteworthy contamination threats associated with other discrete contaminant sources.

Our water system services approximately 3,690 people through 1,475 service connections. Our highest single day was 487 thousand gallons. On July 11, 2011, the Village of Lyons started to purchase water under a five year contract from the Wayne County Water and Sewer Authority (WCWSA). The WCWSA purchases this water from the Village of Newark then resells it to the Village. The amount of purchased water in 2013 was 120,368,000 gallons. The amount of water delivered to customers was 91,845,000 gallons This 28,532,000 gallon water loss accounts for the difference in water delivered to customers and the total amount purchased. This is a 24% percent loss. Village use that is calculated in this loss is from hydrant flushing, fire fighting, street cleaning, undetected leaks, and slow meter readings from aged meters. In 2012/2013 the

Village commenced a 100% meter replacement program for residents.

In 2013 water customers were charged \$45.50 for the first 5,000 gallons of water and \$7.00 per thousand thereafter for the inside village rate. The outside of the village rate was \$63.70 for the first 5,000 gallons of water and \$9.80 per thousand thereafter. Available on request is a daily water purchased log from January - December 2013.

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform (minimum 4 per month), inorganic compounds (once per year), nitrate (once per year), volatile organic compounds (once per year), synthetic organic compounds (once every three years), radiologic parameters (quarterly), and lead and copper (once every three years). 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 concentrations of these contaminants do not change frequently.

It should be noted that all drinking water, including bottled drinking 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 (800) 426-4791, or log on to EPA's Drinking Water Website www.epa.gov/safewater/, or the New York State Department of Health in Geneva at (315) 789-3030.

Village of Newark test results

Contaminant	Units	Violation Yes/No	MCL G	Regulatory Unit	Date of Sample	Village of Newark Results	Likely Source
Barium	Ppm	No	2	2	10/16/ 13/	.026	Discharge of drilling wastes, or metal refineries; Erosion of natural deposits
Nickel	Ppb	No	N/A	50	10/16/ 13	.0013	Nickel occurs naturally in soils, ground water and surface waters
Nitrate	Ppm	No	10	10	10/16/ 13	.13	Erosion of natural deposits

Chromium	Ppb	No	6	6	10/16/ 13		.0031		Discharge from steel and pulp mills; Erosion of natural deposits
Radium – 226 *footnote #3	pCi/l	No	5	5	2008		-0.0625		Erosion of natural deposits
Radium – 228 *footnote #3	pCi/l	No	5	5	2008		-0.0697		Erosion of natural deposits
Fluoride	mg/l	No	N/A	2.2	2013		1.0		Water additive that promotes strong teeth.
Sodium *footnote #1	mg/l	No	N/S	N/S			ND		Naturally occurring water softeners
Turbidity *footnote #2	NTU	No	N/A	TT=<5 NTU	2013		.30		Soil runoff
Turbidity *footnote #2	NTU	No	N/A	TT=95% of samples <1.0 NTU	2013		100%		Soil runoff
Total Trihalomethanes Stage 1 DBP Results	ug/l	No	N/A	80	2013		50.6 (28-74 ug/l)		Disinfection Byproducts
Total Trihalomethanes Stage 2 DBP Results	ug/l	No	N/A	80	2013		55.5 (55-56)		Disinfection Byproducts
HAA5 Stage 1 DBP Results	ug/l	No	N/A	60	2013		25.4 (12-44 ug/l)		By-Product of drinking water chlorination
HAA5 Stage 2 DBP Results	ug/l	No	N/A	60	2013		42 (38-46 ug/l)		By-Product of drinking water chlorination

In New York, the State Health Department is responsible for enforcing EPA's regulations. The State has the option, which it has used in several cases, to implement its own regulations if they are equivalent or more stringent than the EPA's. The State Health Department reviews and approves treatment plant and distribution system modifications as well as new construction. They also review all our operating and monitoring data for compliance on a monthly basis.

*footnote #1: Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely 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.

*footnote #2: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. State regulations require that turbidity must always be below 5 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 1.0 NTU 100% of the turbidity measurements of water leaving the Newark Filter Plant in 2013 were below 1.0 NTU.

*footnote #3: Radium 226 and 228 is sampled by taking 1 grab sample per calendar quarter and analyzing the composite of those samples.

Turbidity

Turbidity is a measure of the cloudiness of the water. Newark's water plant monitors it because it is a good indicator of the effectiveness of the filtration system. There were no violations in 2013.

Note;

State regulations require that turbidity must always be below 5 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 1.0 NTU 100% of the turbidity measurements of water leaving the Newark Filter Plant in 2013 were below 1.0 NTU.

The Village and Town of Lyons is required to collect and analyze a minimum of Five, (5), total coliform samples from various points. Four (4) samples within the Village limits, one (1) sample in the Gristmill/Westphal water district. There were no violations with the 75 samples taken.

The *Village of Lyons* was required to test for Lead and Copper during 2011. Below is a summary of these results. There were no violations found as a result of this testing for Lead or Copper in the Village of Lyons.

Parameter	EPA/NYS Limits	Range of Values	90 th Percentile Value		% Homes Exceeding Action Level		
Lead	AL=15 ug/l	ND – 10 ug/l	2.2 ug/l		0		
Copper	AL=1.3 mg/l	.019 - .69	0.35 mg/l		0		
Contaminant	Units	Violations Yes/No	MCL G	Regulatory Limit	Date of Sample	Village of Lyons	Likely Source
Total Trihalomethanes Stage 1 DPB Results	ug/l	No	N/A	80	2013	54.66 (42-66)	Disinfection Byproducts

Total Trihalomethanes Stage 2 DPN Results	ug/l	No	N/A	80	2013	63 (60-66)	Disinfection Byproducts
HAA5 Stage 1 DBP	ug/l	No	N/A	60	2013	27.33 (23-34)	By-Product of drinking water chlorination
HAA5 Stage 2 DBP	ug/l	No	N/A	60	2013	32 (30-34)	By-product of drinking water chlorination
Total coliform	P/A	No	N/A	MCL=2 or more positive samples in one month	10/7/13 11/4/13	Positive	Naturally present in the environment
E-coli	P/A	No	N/A	MCL=2 or more positive samples in one month	10/7/13 11/4/13	POSITIVE	Naturally present in the environment

A water quality summary is available for review at the Village Office.

Definitions:

MCL – Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

MCLG – Maximum Contaminant Level Goal. 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.

AL - Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

NTU – Nephelometric turbidity unit, a measure of the clarity of water.

TT – Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

mg/l – Milligrams Per Liter. Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).

ug/l – Micrograms Per Liter. Corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).

pCi/l – Picocuries Per Liter. A measure of the radioactivity in water.

N/A-Not Applicable

NS-Not Sampled

ND-No Detects

MRDL - Maximum Residual 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 contamination.

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.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the above table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Total coliform and e-coli were detected in October and November, but all repeat samples were negative so no violations occurred.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2013, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON FLUORIDE ADDITION

Our system is one of many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection., Water purchased from WCWSA has fluoride added at the Village of Newark plant. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that the above mentioned systems monitor fluoride levels on a daily basis. During 2013 monitoring showed fluoride levels in your water were in the optimal range 98% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

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.

- Saving water saves energy and the costs associated with producing it and the need to

construct costly new wells.

- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn water off while shaving and/or brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets 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. It is not uncommon to lose up to 1000 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you can save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes; if it moved, you have a leak.
- Replace older fixtures with water-saving devices.
- When washing your car, use a bucket for washing and turn on the hose only for rinsing.
- Take showers instead of baths.
- Curb lawn watering – water your lawn only when necessary, and water between the hours of 8:00 p.m. - 10:00 a.m.
- Put a layer of mulch around trees and plants to hold water for your plants.
- If you have a swimming pool, fill it during the night when demands on power and water production systems are less.

SYSTEM IMPROVEMENTS

In our continuing efforts to maintain a safe and dependable water supply, it will be necessary to make improvements in your water system. The cost of these improvements will be reflected in the rate structure. Rate adjustments will be necessary in order to address these improvements.

Sohn Alloway 250,000gallon water tank was inspected and updated in 2013.

Residential 3/4 and 1in water meters are continuing to be changed to the new Badger meter.

Thank you for allowing us to provide your family with quality drinking water. It is our intent to continue to provide our customers with safe, healthy, and dependable water.

VILLAGE OF Lyons Water usage	1 st quarter	22,730,000
	2 nd quarter	22,060,000
	3 rd quarter	22,139,000
	4 th quarter	18,374,000

Total 2013		83,303,000
Gallons per day		228,227
# of meters		1398
Usage per meter		163 gal per day

Gristmill Dr. Water usage	1 st quarter	352,000
	2 nd quarter	328,000
	3 rd quarter	345,000
	4 th quarter	287,000

Total 2013		1,312,000
Gallons per day		3,595
# of meters		34
Usage per meter		106 per day

Westphal Water use	1 st quarter	432,000
	2 nd quarter	449,000
	3 rd quarter	420,000
	4 th quarter	460,000

Total 2013		1,761,000
Gallons per day		4,825
# of meters		43
Usage per day		112 gal per day

Maple st. usage	1 st quarter	20,000
	2 nd quarter	20,000
	3 rd quarter	23,000
	4 th quarter	26,000

Total 2013		89,000
Gallons per day		244
# of meters		3
Usage per meter		81 gal per day

W Water st. usage per year 2013		5,380,000
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Village of Lyons Hydrant Flushing 2013

Spring	approx gallons used	2,147,785
Fall	approx gallons used	2,147,785
Quarterly dead ends	approx gallons user	92,600
Quarterly dead ends	approx gallons used	92,600
Approx gallons used 2012		4,480,770

Gristmill Dr. Hydrant Flushing 2013

Spring	approx gal used	46,520
Fall	approx gal used	46,520
Quarterly dead ends	approx gal used	11,680
Quarterly dead ends	approx gal used	11,680
Approx gal used 2013		116,400

Westphal Water District Flushing 2013

Spring	approx gal used	62,870
Fall	approx gal used	62,870
Quarterly dead ends	approx gal used	26,280
Quarterly dead ends	approx gal used	26,280
Approx gal user 2013		178,300

Fire Department usage 2013	86,000
Flushing Hydrants after water breaks	550,000
Sohn Alloway Tank flushing and inspection	575,000
Carwash	5,000
Central Park	5,000
Canal Bank	26,000
Total purchased water	120,368,000
Total sold	91,845,000
Unmetered	6,022,470

Unaccounted Water 22,500,530

Approx 19% water loss in 2013