

VILLAGE OF ROAMING SHORES

Drinking Water Consumer Confidence Report

2016

The Village of Roaming Shores in 2016 was issued an unconditioned License to Operate {LTO} the Public Water System {PWS} by the Ohio EPA. Unconditioned means there are no pending water quality issues that need to be resolved.

The Village of Roaming Shores has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

What's the source of your drinking water?

The Village of Roaming Shores receives its drinking water from a bulk water agreement with Aqua Ohio. Aqua-Ohio Water Company treats water drawn from the waters of Lake Erie. The waters of Lake Erie are considered a surface water source and require extensive treatment before it can be used as a drinking water. The treated water travels through part of more than 1,550 miles of distribution system to your homes. (Source: LAKE ERIE – Ashtabula)

Our Emergency Water Supply

The Village of Roaming Shores also has a *back-up* connection with the Village of Rock Creek. During 2016, we used – 0 - gallons from this connection over – 0 - days. This report does not contain information on the water quality received from the Village of Rock Creek, but a copy of their consumer confidence report can be obtained by contacting the Rock Creek Village office at [440-563-3992](tel:440-563-3992).

What are sources of contamination to drinking water?

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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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 Storm water runoff, and septic systems; (E) 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

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 infection. 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 and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Village of Roaming Shores conducted sampling for *bacteria, chlorine residual* and Aqua- Ohio conducted sampling for *inorganic; synthetic organic; volatile organic; radiological;* contaminants during 2016. Samples were collected for a total of more than 160 different contaminants most of which were not detected in the Aqua- Ohio water supply. The Ohio EPA requires us to monitor for some 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.

Listed below is information on those contaminants that were found in the Village of Roaming Shores Drinking Water.

Contaminant (units)	MCL G	MCL	Level Found	Range of Detection			Violation	Year Sampled	Typical Source of Contaminants
Microbiological Contaminants									
Total Coliform Bacteria (TC)	T.C.B Neg.	T.C.B Neg.	0	Neg. 24	-	Pos. 0	No	2016	Naturally present in the environment
Total Organic Carbon ^[1]	NA	TT	0.76	0.21	-	0.91	No	2016	Naturally present in the environment
Turbidity (NTU) ^[2]	NA	TT	0.08	0.03	-	0.08	No	2016	Soil runoff
Turbidity (% samples meeting standard)	NA	TT	100	100	-	100	No	2016	Soil runoff
Inorganic Contaminants									
Fluoride (ppm)	4	4	1.04	0.75	-	1.12	No	2016	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	0.70	0.50	-	0.70	No	2016	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Asbestos(MFL)	7	7	<0.16	NA			No	2011	Decay of asbestos cement water main, erosion of natural deposits
Barium (ppm)	2	3	0.019	NA			No	2016	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.26	90% of test levels were less than <u>.23 ppm</u>			No	2016	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
	0	out of	10	samples exceeded the action level of 1.3 ppm for copper.					
Lead (ppb) ^[3]	0	AL=15	5.9	90% of test levels were less than <u>4.1 ppb</u>			No	2016	Corrosion of household plumbing systems; Erosion of natural deposits
	0	out of	10	samples exceeded the action level of 15 ppb for lead.					
Volatile Organic Contaminants									
TTHMs [Total Trihalomethane] (ppb)	NA	80	86.3	1.0	-	86.3	No	2016	By-product of drinking water chlorination.
HAA5 [Haloacetic Acids] (ppb)	NA	60	46.9	23.0	-	46.9	No	2016	By-product of drinking water chlorination.
IDSE [Total Trihalomethane] (ppb) ^[4]	NA	80	NA	18.3	-	59.7	No	2010	By-product of drinking water chlorination.
IDSE [Haloacetic Acids] (ppb) ^[4]	NA	60	NA	17.7	-	38.0	No	2010	By-product of drinking water chlorination.
Chloroform	NA	NA	5.6	NA			No	2016	By-product of drinking water chlorination.
Bromodichloromethane	NA	NA	4.8	NA			No	2016	By-product of drinking water chlorination.
Dibromochloromethane	NA	NA	1.8	NA			No	2016	By-product of drinking water chlorination.
Unregulated Contaminants (Results 2013) (Plant Tap) EP001			Reported Level	Range					
				Low	-	High			
Chlorate (ppb)			193	ND	-	450	Unregulated contaminants monitoring helps EPA to determine where certain		
Chromium (total) (ppb)			0.07	ND	-	0.29			

Chromium-6 (ppb)	0.083	0.05	-	0.11	contaminants occur and whether it needs to regulate those contaminants.		
Molybdenum (ppb)	1.2	1.1	-	1.4			
Strontium (ppb)	150	140	-	160			
Vanadium (ppb)	0.12	ND	-	0.24			
Unregulated Contaminants (Results 2013) (Distribution System)	Reported Level	Range					
		Low	-	High			
Chlorate (ppb)	176	ND	-	340			
Chromium (total) (ppb)	0.20	ND	-	.37			
Chromium-6 (ppb)	.17	.15	-	.18			
Molybdenum (ppb)	1.25	1.10	-	1.30			
Strontium (ppb)	165	160	-	170			
Vanadium (ppb)	0.32	0.20	-	0.42			
Residual Disinfectants							
Total Chlorine (ppm)	MRD L	MRDL G	.9775 Ave.	.37 - 1.5	No	2016	Water additive used to control microbes
	4	4					

[1] The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between the percentages of TOC actually removed to the percentage of TOC required to be removed. Our water system is in compliance with TOC removal requirements if the value is greater than one (1). A value of less than one (1) indicates a violation of the TOC removal requirements.

[2] Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the highest recorded turbidity result for 2016 was 0.08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100.0%.

[3] 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 Village of Roaming Shores water Department 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>.

[4] Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

Aqua Ohio - Ashtabula Water Treatment Plant also monitored for Cryptosporidium in the source water during 2010. Cryptosporidium was detected in one sample of three collected from the raw water. It was not detected in the finished water. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

The Village of Roaming Shores provides additional treatment. Does not apply to Non-Village Residents

The Village water department provides additional chlorination to the water received from Aqua Ohio, Inc. to ensure water quality in the distribution system. The Ohio EPA recommends that free chlorine residuals be maintained at 1.0-0.5 ppm and no less than 0.2 ppm in the distribution system.

The Village performed over 365 chlorine residual tests last year and continually monitors feed 24 hours a day to ensure water quality and safety. The results of our chlorine tests for the year 2016 are as follows: Average chlorine residual .978ppm. Maximum chlorine residual 1.50 ppm and minimum chlorine residual 0.37 ppm.

The Public is invited to participate in making decisions concerning your drinking water.

Public participation and comments are encouraged at the Village of Roaming Shores Utility Study Commission which meets on a as need basis. Bring your concerns and comments to the attention of the village administrator and he will set up a meeting.

Definitions and Notes of some of the terms and items contained within the report.

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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 year

Action Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was five and the contaminant in that sample was not detected.

N/A- Not applicable

Level Found – This column represents average of the samples results collected, in some cases, it may represent a single sample if only one sample was collected.

Chlorine Residual- The amount of chlorine (combine and free available chlorine) remaining in water at the end of a specified contact period following chlorination.

Range of Detection's– This column represents a range of individual samples results, from the lowest to highest that were collected during the year.

Nitrate – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause Blue Baby Syndrome. Nitrate level may rise quickly for short periods of time because of rainfall or agricultural activity. If you care for an infant you should ask for advice from a health care provider.

Total Trihalomethanes (TTHM's) – Sum of Bromodichloromethane, Bromoform, Chlorodibromomethane, and Chloroform. 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.

Copper – is an essential nutrient, but some people who drink water containing copper in excess of the Action Level over a relatively short timer could experience gastrointestinal distress or suffer liver or kidney damage. People with Wilson's Disease should consult their doctor.

Lead – Infants and children who drink water in excess of the Action Level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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. Village of Roaming Shores 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 at 1-800-426-4791

<http://www.epa.gov/safewater/lead>

Fluoride – Some people who drink water containing fluoride well in excess of the MCL over many years could get bone disease including pain in tenderness of the bones.

If you have any question about the information in this document feel free to contact me by phone or e-mail 1-440-474-2302 wutp@roamingshoresOH.gov Thank You, Victor Virmala, Utility Supervisor.