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# **The Village of Chagrin Falls**

## **Public Water System**

### **Consumer Confidence Report**



**Ohio Environmental Protection Agency  
Division of Drinking and Ground Waters**

[www.epa.ohio.gov/ddagw](http://www.epa.ohio.gov/ddagw)

***Village Of Chagrin Falls***  
**Drinking Water Consumer Confidence Report**  
**For 2016**

The Village Of Chagrin Falls 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.

The Village Of Chagrin Falls receives its drinking water from Franklin Street Well Field (a ground water source) and Cleveland Water (surface water taken from Lake Erie)

### **Drinking Water Source Assessment**

The City of Cleveland uses a multiple barrier process to treat Lake Erie water to meet drinking water quality standards. This is done because no single treatment process can address all possible contaminants. For more information, contact Cleveland Risk Manager at (216) 664-2444, ext.5634, and request the Drinking Water Source Assessment Report.

The Ohio EPA has determined that the Franklin Street Well susceptibility to contamination is low due to the aquifer being covered by a 183-foot thick layer of clay; test results do not indicate that contamination has impacted the aquifer. For more information about our Drinking Water Source Assessment, contact Glenn Elliott at (440)247-5051.

### **What are sources of contamination to 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 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. 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 Federal 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 Chagrin Falls conducted sampling for bacteria; inorganic; radiological; synthetic organic; volatile organic during 2016. Samples were collected for numerous different contaminants most of which were not detected in the Village Of Chagrin Falls 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, are more than one year old.

**Table of Detected Contaminants**

Listed below is information on those contaminants that were found in the Village Of Chagrin Falls and Cleveland Water drinking water.

**TABLE**

**OF DETECTED CONTAMINANTS (Village Of Chagrin Falls)**

Contaminants (Units)	MCLG [MRDLG]	MCL [MRDL]	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Organic Contaminants</b>							
Barium (ppm)	2	2	0.00014	0.00014-0.00014	NO	2014	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits
TTHMs [Total trihalomethanes] (µg/L)	N/A	80	26.21	<2-71.46	NO	2016	By-product of drinking water chlorination
HAA [Haloacetic Acids] (µg/L)	N/A	60	9.11	<6-21.629	NO	2016	By-product of drinking water chlorination
<b>Disinfectants</b>							
Total Chlorine (mg/L)	4	4	.98	.33-3.97	NO	2016	Water additive used to control microbes.
<b>Lead and Copper</b>							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15 ppb	0/20	2.0	NO	2015	Corrosion of household plumbing systems ; Erosion of natural deposits	
						0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.	
Copper (ppm)	1.3 ppm	0/20	0.32	NO	2015	Corrosion of household plumbing systems ; Erosion of natural deposits	
						0 out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.	

**TABLE OF DETECTED CONTAMINANTS (Cleveland Water)**

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Inorganic Contaminants</b>							
Flouride (mg/L)	4	4	1.0	0.8-1.3	NO	2016	Water additive which promotes strong teeth
Nitrate [as Nitrogen] (mg/L)	10	10	0.95	<0.01-0.95	NO	2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
<b>Organic Contaminants</b>							
TTHMs [Total trihalomethanes] (µg/L)	N/A	80	36.5	4.8-32.2	NO	2016	By-product of drinking water chlorination.
HAA [Haloacetic Acids] (µg/L)	N/A	60	30.3	6.4-42.6	NO	2016	By-product of drinking water chlorination.
Total Organic Carbon	N/A	TT	1.18	1.1-1.51	NO	2016	Naturally present in the environment.
<b>Disinfectants</b>							
Total Chlorine (mg/L)	4	4	0.98	0.9-1.1	NO	2016	Water additive used to control microbes.
<b>Microbiological Contaminants</b>							
Turbidity (NTU)	N/A	TT=1	0.09	0.02-0.09	NO	2016	Soil runoff.
<b>Lead and Copper</b>							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15 ppb	1@ 46 ppb	ND	NO	2015	Corrosion of household plumbing systems ; Erosion of natural deposits	
	1 out of 51 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3ppm	N/A	0.07	NO	2015	Corrosion of household plumbing systems ; Erosion of natural deposits	
	0 out of 51 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						

**Unregulated Contaminants** - substances for which EPA has no established drinking water standard. EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances in the future.

**UNREGULATED CONTAMINANTS (Chagrin Falls)**

Contaminants (units)	Level Found	Range Of Detections
Chromium (µg/L)	0.207	0.203-0.207
Chromium-6 (µg/L)	0.227	0.225-0.227
Chlorate (µg/L)	48.607	45.161-48.607
Strontium (µg/L)	498.626	163.64-498.626
Molybdenum (µg/L)	1.725	1.203-1.725
1,1-dichloroethane (µg/L)	0.105	0.105-0.105
Halon 1011 (µg/L)	0.137	0.137-0.137
Manganese (µg/L)	6.178	6.178-6.178
Vandium (µg/L)	0.27	0.27-0.27

**UNREGULATED CONTAMINANTS (Cleveland Water)**

Contaminants (units)	Level Found	Range Of Detections
Chlorate (µg/L)	60.0	22.0-120.0
Chromium-6 (µg/L)	0.10	0.03-0.20
Molybdenum (µg/L)	1.3	1.0-1.5
Strontium (µg/L)	168.5	150-210
Testosterone (µg/L)	0.00016	ND-0.00016
Vanadium (µg/L)	0.4	ND-0.7

## LEAD

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 Chagrin Falls 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## CRYPTOSPORIDIUM

Cryptosporidium was detected in a raw water sample from the Morgan (Cleveland) water plant in June, 2016. Specifically, two oocysts (organisms) of Cryptosporidium were detected from a 100 liter sample of raw water from the Morgan (Cleveland) plant. 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 common filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current test methods can't determine if these organisms are dead or are capable of causing disease. Symptoms include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immunocompromised people are at greater risk; these individuals should consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease and it may spread through means other than drinking water. Cleveland Water has been monitoring raw and finished water every month for Cryptosporidium for many years at each of their four plants. This was the only detection ever found.

### License to Operate (LTO) Status Information

In **2016** we had an unconditioned license to operate our water system.

### How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of **Utilities Committee** which meets as needed at Village Hall, 21 West Washington Street, Chagrin Falls, Ohio. Dates and times for these meetings are posted at Village Hall. For more information on your drinking water contact Glenn Elliott Superintendent of Utilities **at (440)-247-5051**.

### Definitions of some terms contained within this 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

- **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 Level Goal (MRDLG):** The level of 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.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Contact Time (CT)** means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).
- **Microcystins:** Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- **Cyanobacteria:** Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- **Cyanotoxin:** Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as “algal toxin”.
- **Level 1 Assessment** is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- **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 ( $\mu\text{g/L}$ )** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- **The “<” symbol:** A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.
- **Picocuries per liter (pCi/L):** A common measure of radioactivity.