

Annual Drinking Water Quality Report

Village of Niles

Utility Number IL0312010

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 Village of Niles water system to provide safe drinking water. The Village of Niles receives water from Lake Michigan through the City of Chicago, and also from the Morton Grove Niles Water Commission, which in turn receives water from the City of Evanston. For more information regarding this report contact Jack Grana at (847) 588-7900.

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



*Niles Public Works Department
6849 Touhy Avenue
Niles, Illinois 60714
(847) 588-7900*

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 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, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 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.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA 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.

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. 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 (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-CHGO MTR VLT RSVR CHLOR HSP'S FF IL0316000 TP01: LAKE	SW		
CC02-MAIN PS WATER FROM MG-N WATER	SW		
CC03-NAGLE AVE PS. WATER FROM MG-N	SW		

Source Water Assessment Summary

We want our valued customers to be informed about their water quality. The public is welcome to attend our regularly scheduled Village Board meetings held at 1000 Civic Center Drive. Regular meetings of the Village Board of Trustees are held on every fourth Tuesday of each calendar month except in November, when it is held on the third Tuesday of the month, unless the third Tuesday is the week of Thanksgiving, then it is held on the fourth Tuesday, and December when the meeting is held on the second Tuesday, at 7:00 p.m. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Niles Public Works Department or call our Water Plant Supervisor at 847-588-7900. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; 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>.

Source of Water: EVANSTON

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intakes with no protection only dilution, which is the reason for mandatory treatment for all surface water supplies in Illinois. All three of Evanston's intakes are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes.

Water supply officials from Evanston are active members of the West Shore Water Producers Association. Coordination regarding water quality situations (i.e., spills, tanker leaks, exotic species, etc.) is frequently discussed during the association's quarterly meetings. Lake Michigan, as well as all the great lakes, has many different organizations and associations that are currently working to either maintain or improve water quality. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of watershed protection activities in the IEPA Source Water Assessment document are aimed at this purpose.

Source of Water: CHICAGO

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

The City of Chicago has continued voluntary monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. In 2018, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEP A has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

https://www.chicago.gov/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html

DEFINITIONS

- **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.
- **MCL** - Maximum Contaminant Level: The highest level of a known contaminant allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- "Range of Detection" represents a range of individual sample results, from lowest to highest, taken during the CCR calendar year.
- "Date of Sample" represents whether the sample was collected during the CCR calendar year or the last time IEPA required samples to be collected. If no date appears, then the sample was collected during the reporting year.
- **ppm** - Parts Per Million (same as mg/l) – or one ounce in 7,350 gallons of water.
- **ppb** - Parts Per Billion (same as ug/l) – or one ounce in 7,350,000 gallons of water.
- **#pos/mo** - This represents the number of positive samples per month.
- **%pos/mo** - This represents the percentage of positive samples per month.
- **AL** - Action Level: The level of a contaminant above which certain prescribed treatment techniques must be employed to reduce contaminant risk.
- **ND** - Not Detectable: Not found at the testing limits.
- **NA** - Not Applicable.
- **TT** - Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.
- **%<0.5 NTU** - Percent of samples less than .5 NTU.
- "Amount" column is an average of all sample result data collected during the CCR calendar year.
- **NTU** - Nephelometric Turbidity Unit, used to measure cloudiness in the drinking water.

Total Organic Carbon (TOC) The percentage of Total Organic Carbon removal was measured each month and Chicago's system met all TOC removal requirements set by the IEPA.

Turbidity is a measurement of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants. During the winter months, your water may appear to be turbid, but in fact only contains air bubbles. This is nothing to be concerned about. Run your tap until your water gets cold or simply let the water stand a few minutes for it to clear up.

Unregulated Contaminants A maximum contaminant level (MCL) for this contaminant has not been established by either the state or federal regulations, nor has a mandatory health effect language. The purpose for monitoring this contaminant is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

Sodium has no MCL. Monitoring is required to provide information to consumers and health officials concerned about sodium intake due to dietary precautions. However, individuals on a sodium-restricted diet should consider consulting a physician.

2018 Regulated Contaminants Detected

Village of Niles Water System

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: 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
Lead	06/21/2017	0	15	6.76	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	12/31/2018	1.0	0.9 - 1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2018	15	7.18 – 20.7	No goal for the total	60	ppb	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes)	2018	36	13.37 – 52.4	No goal for the total	80	ppb	No	By-product of drinking water disinfection

2018 Violation Summary

We are pleased to announce that no monitoring, reporting, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2018.

UCMR4 Compliance Reporting Tested For By the Village of Niles In 2018

In compliance with the Unregulated Contaminant Monitoring Rule 4 (UCMR4) as required by the EPA, the Village of Niles has monitored for contaminants suspected to be present in drinking water, but that do not have health based standards set under the Safe Drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR4 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, manganese and HAA9 (Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid). The contaminants that were detected in this monitoring program are listed below.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Manganese	3/29/2018	0.436	0.3 µg/L	N/A	150	µg/L	-	Manganese is a mineral that naturally occurs in rocks and soil and may also be present due to underground pollution sources.
HAA9	1/25/2018	19.8	N/A	N/A	N/A	µg/L	-	N/A

Since the Village of Niles purchases Lake Michigan from the City of Chicago, water system information from Chicago is included in our report.

2018 Regulated Contaminants Detected - City of Chicago Water System

Turbidity Data	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
Turbidity (NTU/ Lowest Monthly % ≤ 0.3 NTU)	N/A	TT (Limit 95% ≤ 0.3 NTU)	100%	Lowest Monthly %: 100.0%		Soil runoff.
Turbidity (NTU Highest Single measurement)	N/A	TT (Limit 1 NTU)	0.19	N/A		Soil runoff.

Inorganic Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source Of Contaminant
Barium (ppm)	2	2	0.0214	0.0203 – 0.0214	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate [as Nitrogen] (ppm)	10	10	0.42	0.31 – 0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Total Nitrate & Nitrite (as Nitrogen) (ppm)	10	10	0.42	0.31 – 0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

Unregulated Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source Of Contaminant
Sulfate (ppm)	N/A	N/A	27.6	26.3 – 27.6	No	Erosion of naturally occurring deposits.
Sodium (ppm)	N/A	N/A	8.89	8.14 – 8.89	No	Erosion of naturally occurring deposits. Used as a water softener.

State Regulated Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source Of Contaminant
Fluoride (ppm)	4	4	0.86	0.64 – 0.86	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Radioactive Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source Of Contaminant
Combined Radium 226/228 Date: 02/11/2014	0	5	0.84	0.50 – 0.84	No	Decay of natural and man-made deposits.
Gross alpha excluding radon and uranium Date: 02/11/2014	0	15	6.6	6.1 – 6.6	No	Decay of natural and man-made deposits.

Since the Village of Niles purchases Lake Michigan from the City of Evanston, water system information from Evanston is included in our report.

2018 Regulated Contaminants Detected - City of Evanston Water System

Turbidity Data	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Turbidity (NTU Highest Single measurement)	1 NTU	0.16 NTU	No	Soil runoff.
Turbidity (NTU/ Lowest Monthly % ≤ 0.3 NTU)	0.3 NTU	100%	No	Soil runoff.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Barium (ppm)	2018	0.021	0.021 – 0.021	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	2018	0.7	0.6 – 0.7	4	4.0	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen) (ppm)	2018	0.4	0.4 – 0.4	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium (ppm)	2018	7	7.3 – 7.3			No	Erosion from naturally occurring deposits. Used in water softener regeneration.

Total Organic Carbon

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

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Combined Radium 226/228 (pCi/L)	01/16/2014	0.99	0.99 – 0.99	0	5	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium (pCi/L)	01/16/2014	0.16	0.16 – 0.16	0	15	No	Erosion of natural Deposits

UCMR4 Compliance Reporting Tested For By the City of Evanston In 2018

Evanston monitored for UCMR4 AM3: Cyanotoxins and Total Microcystins from August – November, 2018. All results were non-detects.