

Annual Drinking Water Quality Report

Village of Niles

Utility Number IL0312010

Annual Water Quality Report for the period of January 1 to
December 31, 2004

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 source of drinking water used by the Village is Niles is Lake Michigan and is purchased through the City of Chicago. For more information regarding this report contact Wally Kazakeich 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 Services Department

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Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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

WATER: The Pure Facts

- *Water constitutes 40% of the reported daily beverage consumption in the United States*
- *You can survive about a month without food, but only 5 to 7 days without water.*
- *The average five-minute shower uses from 15 to 25 gallons of water.*
- *Each person uses about 100 gallons of water a day at home.*
- *The average household consumes at least 50% of its water by lawn sprinkling.*
- *An automatic dishwasher uses approximately 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.*
- *You can refill an 8 oz. Glass of water approximately 15,000 times for the same cost as a six pack of pop.*
- *Of all the earth's water, 97% is salt water, 2% is frozen water and only 1% is available for drinking water.*
- *Water has zero calories and zero sugar, but a good drink of water can reduce hunger. Water also helps your body metabolize stored fats, helps maintain proper muscle tone, and helps rid the body of wastes.*

Source Water Assessment Summary

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. Throughout history there have been extraordinary steps taken to assure a safe source of drinking water in the Chicagoland area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the city's Lakefront Zoning Ordinance. The city now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality. Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level.

Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

2004 Regulated Contaminants Detected

Village of Niles Water System

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
	1 positive monthly sample	1	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive		No	Naturally present in the environment

Lead and Copper

Date Sampled: 12/31/2004

Definitions:

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

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	<5 ppb	0	1.3 ppm	1.3 ppm	<0.100 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG): 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. mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water. ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.
- na: not applicable.
- Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.
- Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
TTHMs [Total Trihalomethanes]	7/27/2004	45.2	9.3 - 45.2	N/A	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)	4/26/2004	23.1	8.2 - 23.1	N/A	60	ppb	No	By-product of drinking water chlorination

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old. MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLG (Maximum Contaminant Level Goal): 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow. ppm: parts per million ppb: parts per billion ppt: parts per trillion pCi/l: picoCuries per liter (measurement of radioactivity)

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

2004 Regulated Contaminants Detected City of Chicago Water System

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source Of Contamination
0	5% of monthly samples are positive	3	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive		No	Naturally present in the environment

Lead and Copper

Date Sampled: 12/31/2004

Definitions:

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

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	4 ppb	0	1.3 ppm	1.3 ppm	0.024 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
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Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
TTHMs [Total Trihalomethanes]	7/28/2004	26.8	11.5 - 26.8	N/A	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)	4/27/2004	11.8	6 - 11.8	N/A	60	ppb	No	By-product of drinking water chlorination

Chlorine		0.692	0 - 0.692	MRDLG=4	MRDL=4	ppb	No	Water additive used to control microbes
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Fluoride	1/13/2004	0.97	0.92 - 0.97	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Barium	1/13/2004	0.019	0.017 - 0.019	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate-Nitrite	5/10/2004	0.42	0.34 - 0.42	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (As N)	5/10/2004	0.42	0.34 - 0.42	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Sodium There is not a state of federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.	1/13/2004	7	6.9 - 7	N/A	N/A	ppm	No	Erosion of naturally occurring deposits; used in water softener regeneration

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old. MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLG (Maximum Contaminant Level Goal): 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow. ppm: parts per million ppb: parts per billion ppt: parts per trillion pCi/l: picoCuries per liter (measurement of radioactivity)

Turbidity

Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation	Source
0.5 NTU (POP served < 10,000) 0.3 NTU (POP served > 9,999)	100	No	Soil Runoff
Limit (Treatment Technique)	Highest Single Measurement	Violation	Source
5 NTU (POP served < 10,000) 1 NTU (POP served > 9,999)	0.18	No	Soil Runoff

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

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, unless a TOC violation is noted in the violations section.

No water quality violations were recorded during 2004 for the Village of Niles water system.

