

# Village of Niles – 2001 Water Quality Report

This year, as in years past, your tap water was tested according to USEPA and state drinking water health standards. Our system vigilantly safeguards its water supply, and we are working hard to continue providing the best water possible. This report summarizes the quality of water provided last year and informs you of any problems we are working to overcome. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This information is being supplied to you in conformance with the Safe Drinking Water Act as amended.

If you have any questions about this report or concerning your water system, please contact Water Supply Manager Wally Kazakeich by telephone at (847) 588-6630 or by mail at 6849 Touhy Avenue, Niles, Illinois 60714. We want our valued customers to be informed about their water quality. If you would like to learn more, feel welcome to attend meetings discussing the water system. Announcements of any meetings will be posted at the Niles Administrative Offices, 1000 Civic Center Drive.

Lake Michigan is the sole source of water used to provide drinking water. The EPA has found the quality of Lake Michigan has improved dramatically over the past 20 years. Lake Michigan, by volume, is the second largest Great Lake and the only one located totally within the United States. It serves as a source of drinking water, as a place for swimming and fishing, as a scenic wonderland, and as a sink for municipal and industrial waste and runoff from the surrounding lands. All 63 miles of shoreline within Illinois are now considered to be in good condition. The IEPA Office of Groundwater will be doing a source water assessment within the next three years. When completed, all sources of pollutants into Lake Michigan will be identified and there will be information regarding the sources water's susceptibility to contaminants based on the findings of the assessment. Since the quality of the raw water source is good, conventional treatment methods of disinfection, coagulation and sedimentation and sand filtration are adequate for producing a water that is free of harmful contaminants.

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 USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of:

- 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 may be naturally occurring or result from urban stormwater 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 stormwater runoff and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff and septic systems; and
- Radioactive contaminants, which may 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 that 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.

In addition to the informational section of the Water Quality Report, we have included a table for your review. The table will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for, but not detected.

# 2000 Water Quality Data

## Definition of Terms

**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 a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. **Level Found:** This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected. **Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year. **Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year. **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. **nd:** Not detectable at testing limits. **n/a:** Not applicable

## Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detections	Date of Violation	Sample
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### Inorganic Contaminants

LEAD (ppb) Corrosion of household plumbing systems; Erosion of natural deposits.	0	AL=15	5	1 exceeding AL	09/30/1999	
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### Disinfectants\Disinfection By-Products

TTHMs [TOTAL TRIHALOMETHANES] (ppb) By-product of drinking water chlorination.	n/a	100	21.500	11.000 - 37.000		
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### Unregulated Contaminants

BROMODICHLOROMETHANE (ppb) By-product of drinking water chlorination.	n/a	n/a	7.000	4.000 - 12.000		
BROMOFORM (ppb) Discharge from manufacturing plants; Used to dissolve dirt and grease.	n/a	n/a	0.250	nd - 1.000		
CHLOROFORM (ppb) Used as as solvent for fats, oils, rubber, resins; A cleansing agent; Found in fire extinguishers.	n/a	n/a	10.750	4.000 - 19.000		
DIBROMOCHLOROMETHANE (ppb) Used as a chemical reagent; An intermediate in organic synthesis.	n/a	n/a	3.500	3.000 - 5.000		

### Unit of Measurement

ppb - Parts per billion, or micrograms per liter

## Water Quality Data Table Footnotes

### UNREGULATED CONTAMINANTS:

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

# 2000 Non-Regulated Contaminant Detections

The following table identifies contaminants detected within the past five years. State and federal regulations do not require monitoring for these contaminants and no maximum contaminant level (MCL) has been established. These detections are for informational purposes only. No mandated health effects language exists. The CCR Rule does not require that this information be reported; however, it may be useful when evaluating possible sources of contamination or characterizing overall water quality.

## Definition of Terms

**Level Found:** This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected. **Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year. **Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Contaminant (unit of measurement) Typical Source of Contaminant	Level found	Range of detections	Date of Sample
<b>DICHLOROACETIC ACID (HAA) (ppb)</b> By-product of drinking water disinfection.	3.050	2.100 - 4.100	
<b>TRICHLOROACETIC ACID (HAA) (ppb)</b> By-product of drinking water disinfection.	4.375	2.100 - 6.800	

## Unit of Measurement - Definition

ppb - Parts per billion, or micrograms per liter

# 2000 Non-Detected Contaminants

The following table includes contaminants monitored for, but not detected in the most recent sampling. The CCR Rule does not require that this information be reported; however, monitoring has indicated that these contaminants were not present in the water supply. In some cases, if a contaminant is not detected in a water supply, monitoring can be reduced to once every three or six years.

## Definition of Terms

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Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Date of Sample
<b><u>Microbial Contaminants</u></b>				
<b>TOTAL COLIFORM BACTERIA (# pos/mo)</b> Naturally present in the environment.	0	>1	nd	
<b>FECAL COLIFORM AND E. COLI (# pos/mo)</b> Human and animal fecal waste.	0	0	nd	
<b><u>Inorganic Contaminants</u></b>				
<b>COPPER (ppm)</b> Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	1.3	AL=1.3	nd	09/30/1999
<b><u>Additional Contaminants</u></b>				
<b>MONOCHLOROACETIC ACID (HAA) (ppb)</b> By-product of drinking water disinfection.	n/a	n/a	nd	
<b>MONOBROMOACETIC ACID (HAA) (ppb)</b> By-product of drinking water disinfection.	n/a	n/a	nd	
<b>DIBROMOACETIC ACID (HAA) (ppb)</b> By-product of drinking water chlorination.	n/a	n/a	nd	

## Unit of Measurement - Definitions

ppm - Parts per million, or milligrams per liter  
 ppb - Parts per billion, or micrograms per liter  
 # pos/mo - Number of positive samples per month

# 2000 Chicago Water Quality Data

## Definition of Terms

**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 a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. **Level Found:** This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected. **Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year. **Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year. **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. **nd:** Not detectable at testing limits. **n/a:** Not applicable

## Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detections	Date of Violation	Sample
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TURBIDITY (%<0.5 NTU) Soil runoff.	n/a	TT	100.000	100.000 - 100.000		
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TURBIDITY (NTU) Soil runoff.	n/a	TT=5NTUmax	0.200	n/a		
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## Inorganic Contaminants

BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.019	0.019 - 0.019		
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NITRATE (AS NITROGEN) (ppm) 10 10 Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	0.400	0.400 - 0.400				
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NITRATE & NITRITE (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.400	0.400 - 0.400		
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## Unregulated Contaminants

SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	32.400	30.800 - 32.400		
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## State Regulated Contaminants

FLUORIDE (ppm) Water additive which promotes strong teeth.	n/a	n/a	1.040	1.040 - 1.040		
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SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	7.400	6.700 - 7.400		
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## Unit of Measurement

ppm - Parts per million, or milligrams per liter  
 ppb - Parts per billion, or micrograms per liter  
 NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water  
 %<0.5 NTU - Percent samples less than 0.5 NTU  
 % pos/mo - Percent positive samples per month

# 2000 Chicago Water Quality Data Table Footnotes

## TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

## UNREGULATED CONTAMINANTS:

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

## FLUORIDE

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

There is not a state or 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.

## Information Collection Rule (ICR)

During an 18-month period, large water systems (serving >100,000 people) were required to monitor for unregulated compounds and microbial organisms. The following table shows results of analyses for disinfection by-products that were detected in the distribution system samples. These compounds may be regulated in the future based on occurrence data and available health effects information.

<b>DISINFECTION BY-PRODUCTS [DBP] (unit of measure)</b> Typical source.	Level Found	Range of Detection	Monitoring Date
<b>HALOACETICNITRILES [HAN] (ppb)</b> Chlorination by-products total of 4 compounds.	2.85	2.30 - 3.51	Quarterly 7/97-12/98
<b>HALOKETONES [HK] (ppb)</b> Chlorination by-products total of 2 compounds.	0.82	nd - 1.13	Quarterly 7/97-12/98
<b>CHLORAL HYDRATE [CH] (ppb)</b> Chlorination by-product.	1.83	nd - 2.96	Quarterly 7/97-12/98
<b>TOTAL ORGANIC HALIDES [TOX] (ppb)</b> Present due to reactions between chlorine, organic material and bromide.	112	nd - 190	Quarterly 7/97-12/98

Unit of Measure (ppb) - Parts per billion, or micrograms per liter.

<b>DISINFECTANT RESIDUAL (unit of measure)</b> Chlorine is applied as sole disinfectant.	Level Found	Range of Detection	Monitoring Date
<b>FREE CHLORINE (ppm)</b>	0.64	0.3 - 0.9	Quarterly 7/97-12/98
<b>TOTAL CHLORINE (ppm)</b>	0.77	0.4 - 1.1	Quarterly 7/97-12/98

Unit of Measure (ppm) - Parts per million, or milligrams per liter.

The following disinfection by-products were monitored during the ICR and have since been regulated.

<b>DISINFECTION BY-PRODUCTS [DBP] (unit of measure)</b> Typical source.	MCL	Level Found	Range of Detection	Monitoring Date
<b>HALOACETIC ACIDS [HAA5] (ppb)</b> Chlorination by-products total of 5 compounds.	60*	8.5	6.2 - 11.0	Quarterly 2000

Unit of Measure (ppb) - Parts per billion, or micrograms per liter

\* Regulated Contaminant Effective 12/01

# 2000 Source Water Assessment Summary

Based upon Section 141.153(b)2 of the CCR rule, community water supplies are required to report a summary of their source water susceptibility determination, which are compiled by the Illinois EPA.

The Village of Niles purchases water from the City of Chicago. The following information relates to their source water.

As of the date of this report, this summary has not been completed. The Illinois EPA must complete all source water assessments by May, 2003. As this assessment becomes available, our supply will summarize the results and incorporate the information into this report, as required.

Further information on our community water supply's source water assessment is available on the USGS web sit at <http://il.water.usgs.gov> or by calling the Groundwater Section of the Illinois EPA at 217-785-4787.