

2013 Annual Drinking Water Quality Report



City of
North Chicago

PWS ID: IL0971250

Annual Drinking Water Quality Report City of North Chicago

The City of North Chicago (IL0971250) is pleased to share this report with you. This report is a summary of the quality of the water we provide our customers. The analysis covers January 1 through December 31, 2013. This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact: David Soto, North Chicago Water Dept. Plant Superintendent at (847) 596-8881 between the hours of 7:30 a.m. and 4 p.m., Monday through Friday.

Source Water Information

The source of drinking water used by North Chicago is Surface Water.

- Intake (01301) 1958 intake - Lake Michigan Water
- Type of water - SW Report Status - In Service
- Location 6500 feet east of shore

Source of Drinking Water

The sources of all 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 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 byproducts of industrial processes

and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

All Drinking Water May Contain 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. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Lead And Drinking Water

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. Cash Special Utility District 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 www.epa.gov/safewater/lead.

North Chicago Water Facts

• Population served	16,813
• Metered customers	4,101
• Miles of main	67
• Number of fire hydrants	516
• Water production (average million gallons per day)	4.378
• Maximum daily production (million gallons per day)	5.602

2013 Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. 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 City Hall or call our water operator at (847) 596-8881. 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>.

Susceptibility is defined as the likelihood for the source water(s) of a public water system to be contaminated at concentrations that would pose a concern. 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, which is the reason for mandatory treatment for all surface water supplies in Illinois. North Chicago's 6,500-foot intake has a low sensitivity and therefore has greater protection from shoreline contaminates due to mixing and dilution.

The 1,100-foot intake is moderately sensitive to potential pollution, and although there are no potential sources within North Chicago's critical assessment zone, there are several within the immediate source water area. Shoreline contaminants in the vicinity of this intake are perceived as an immediate threat to the intake, the combination of the land use, the proximity of storm sewer outfalls, Pettibone Creek and NSSD pumping station add to the susceptibility of this intake. However, it should be stressed that treatment employed by North Chicago is protective of their consumers, as noted by the facility's finished water history.

En Español

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



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 (1-800-426-4791).

INORGANIC CONTAMINANTS

Contaminant (Unit of Measure)	Collection Date	Highest Level Detected	Range of Levels Detected	MCL [SMCL]	MCLG	Violation	Likely Source of Contamination
Barium (ppm)	2013	0.019	0.019-0.019	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	2013	1.2	1.2-1.2	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as N] (ppm)	2013	0.75	0.75-0.75	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	2013	7.4	7.4-7.4	NA	NA	No	Erosion from naturally occurring deposits; used in water softener regeneration
Sulfate (ppm)	2013	32	32-32	[250]	NA	No	Naturally occurring; common industrial byproduct; byproduct of oil field activity.

DISINFECTANTS AND DISINFECTION BYPRODUCTS

Contaminant (Unit of Measure)	Collection Date	Highest Level Detected	Range of Levels Detected	MCL [MRDL]	MCLG [MRDLG]	Violation	Likely Source of Contamination
Chlorine (ppm)	12/31/13	0.9	0.78-1.0535	[4]	[4]	No	Water additive used to control microbes
Total Haloacetic Acids [HAA5] (ppb)	2013	12	3-22.2	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes [TTHM] (ppb)	2013	22	9-46.24	80	N/A	No	

LEAD AND COPPER (TAP MONITORING)

Contaminant (Unit of Measure)	Collection Date	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Violation	Likely Source of Contamination
Lead (ppb)	06/25/11	0	15	14.2	2	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	06/25/11	1.3	1.3	0.091	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TURBIDITY

	Collection Date	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest Single Measurement	2013	1 NTU	0.05 NTU	No	Soil runoff
Lowest Monthly % Meeting Limit	2013	0.3 NTU	100%	No	Soil runoff

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.

UNREGULATED CONTAMINANTS (UCMR3)

Contaminant (Unit of Measure)	Collection Date	Highest Level Detected	Range of Levels Detected	About UCMR3
Chromium (ppb)	2013	0.30	0.25-0.30	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. Any unregulated contaminants detected are reported in this table. For additional information and data visit http://www.epa.gov/safewater/ucmr/ucmr3/index.html or call the Safe Drinking Water Hotline at (800) 426-4791.
Hexavalent Chromium (ppb)	2013	0.21	0.19-0.21	
Molybdenum (ppb)	2013	1.11	1.03-1.11	
Strontium (ppb)	2013	126.8	113.7-126.8	
Vanadium (ppb)	2013	0.33	0.23-0.33	

DEFINITIONS

We routinely monitor for constituents in your drinking water according to Federal and State laws. In the tables on this page you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following 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. ALGs 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.

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 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 a 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.

N/A – not applicable.

ND – not detected.

NTU – Nephelometric Turbidity Units.

Parts per billion (ppb) – micrograms per liter (µg/l) or one ounce in 7,350,000 gallons of water.

Parts per million (ppm) – milligrams per liter (mg/l) or one ounce in 7,350 gallons of water.

Secondary Maximum Contaminant Level (SMCL) – guidelines to assist public water systems in managing their drinking water for aesthetic considerations. These contaminants are not considered to present a risk to human health at the SMCL.

Treatment Technique (TT) – a required process intended to reduce the level of a contaminant in drinking water.

90th Percentile – 90% of samples are equal to or less than the number in the chart.