Annual Drinking Water Quality Report
North Chicago – IL097-1250

Annual Water Quality Report for the period of January 1 to December 31, 2011

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.

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

For more information regarding this report contact: David Soto, North Chicago Water Dept. Plant Manager at (847) 596-8880 between the hours of 7:30 a.m. till 4:00 p.m., Monday through Friday.

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.

Source Water Contaminants

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 by-products 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.

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 (**1-800-426-4791**).

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.

2011 Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more or have concerns that you would like addressed, citizen involvement is encouraged during the first (1st) City Council Meeting, 1st Monday of month, so long as it is not of a personal or political nature. The source water assessment for our supply has been completed by the Illinois EPA. To view a summmary 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/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.

North Chicago Water Facts

Population served	17,396
Metered customers	4,116
Miles of main	67
Number of fire hydrants	516
Water production (average million gallons per day)	3.700
Maximum daily production (million gallons per day)	15

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VERY IMPORTANT – PLEASE READ

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

2011 Regulated Contaminants Detected

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	1 positive monthly sample	3		0	N	Naturally present in the environment.

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 (AL): 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)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2011	1.3	1.3	0.091	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Lead	2011	0	15	14.2	2	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.

Water Quality Test Results

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 Maximum Contaminant Level Goal as feasible using the best available treatment technology.

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.

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.

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

ppb: micrograms per liter 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.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Disinfectants & Disinfection By-Products								
Chlorine	**	0.9	0.837-1.059	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)*	**	13	0-14	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TThm)*	**	23	12.7-28	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
Inorganic Contaminants								
Barium	**	0.021	0.021-0.021	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	**	0.6	0.63-0.63	4	4.0	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	**	1	0.74-0.74	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium	**	9	8.6-8.6			ppm	N	Erosion from naturally occurring deposits; used in water softener regeneration.

*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

**Indicates sample test taken during 2011 calendar year.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.19 NTU	N	Soil Runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil Runoff.

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