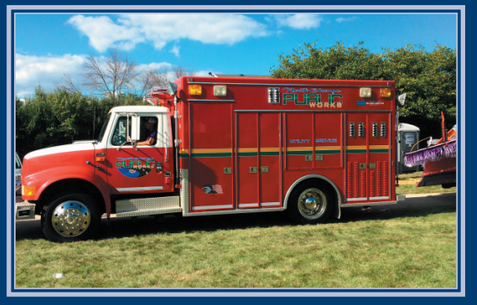
Lewis Ave Water Main Leak Repair

Water Treatment  Plant Lower Water Room

WTP Switch Gear – Showing red/blue tags identifying the power grid feeding the panels



Water Break Tool Truck

**City of North Chicago**
1850 Lewis Avenue
North Chicago, IL 60064

PRSRT STD
U.S. POSTAGE
**PAID**
GURNEE, IL
PERMIT NO. 502

ECRWSSEDDM
POSTAL CUSTOMER
LOCAL

## 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, 2020. 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: Clifford Young. North Chicago Water Treatment Plant Foreman, at (847) 596-8881 between the hours of 6:00 a.m. and 2:00 p.m., Monday through Friday.

## Source Water Information

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

- Intake (01301) 1958 is located 6500 feet East of shore – Lake Michigan Water
- Intake (00113) 1944 is located 1100 feet East of shore – Lake Michigan Water
- Type of Water—SW
- Report Status—In Service

## 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 animal or 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 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.

## 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, the EPA prescribes regulations which limit the amount of certain contaminants permissible 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).

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

## 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. 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 www.epa.gov/safewater/lead.

## North Chicago Water Facts

- Population served ..... 16,813
- Metered customers ..... 4,211
- Miles of main ..... 72
- Number of fire hydrants ..... 516
- Water production (average million gallons per day) ..... 2.537
- Maximum daily production (million gallons per day) ..... 4.064

# 2020 Annual Drinking Water Quality Report


CITY OF NORTH CHICAGO

PWS ID: IL0971250

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).

## Regulated Contaminants

**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) | 2020 | 0.019 | 0.019-0.019 | 2 | 2 | No | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Fluoride (ppm) | 2020 | 0.9 | 0.879-0.879 | 4.0 | 4 | No | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate [as N] (ppm) | 2020 | 0.42 | 0.42-0.42 | 10 | 10 | No | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Sodium (ppm) | 2020 | 10 | 10-10 | NA | NA | No | Erosion from naturally occurring deposits; used in water softener regeneration |

**DISINFECTANTS AND DISINFECTION BYPRODUCTS**

| Containment (Unit of Measure) | Collection Date | Highest Level Detected | Range of Levels Detected | MCL [MRDL] | MCLG [MRDLG] | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Chlorine (ppm) | 2020 | 1.2 | 0.7-1.3 | [4] | [4] | No | Water additive used to control microbes |
| Total Haloacetic Acids [HAA5] (ppb) | 2020 | 29 | 1.21-27.2 | 60 | N/A | No | By-product of drinking water disinfection |
| Total Trihalomethanes [TTHM] (ppb) | 2020 | 61 | 20.64-73 | 80 | N/A | No | By-product of drinking water disinfection |

**LEAD AND COPPER (Testing completed once every three years)**

| Contaminant (Unit of Measure) | Collection Date | MCLG | Action Level (AL) | 90th Per-centile | # Sites Over AL | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| Copper (ppm) | 2020 | 1.3 | 1.3 | 0.036 | 0 | No | Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems |
| Lead (ppb) | 2020 | 0 | 15 | 13 | 2 | No | Corrosion of household plumbing systems; erosion of natural deposits |

**TURBIDITY**

| | Collection Date | Limit (Treatment Technique) | Level Detected | Violation | Likely Source of Contamination |
|---|---|---|---|---|---|
| Highest Single Measurement | 2020 | 1 NTU | 0.09 NTU | No | Soil runoff |
| Lowest Monthly % Meeting Limit | 2020 | 0.15 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.

## Definitions

We routinely monitor for contaminants 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:

**Avg** – regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Level 1 Assessment** – a level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacterial have been found in our water system.

**Level 2 Assessment** – a level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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/1) 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.

## 2020 Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, you are welcome to attend any of our regularly scheduled meetings held on the first and third Monday of the month. 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 to potential pollution 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 NSWRD 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.