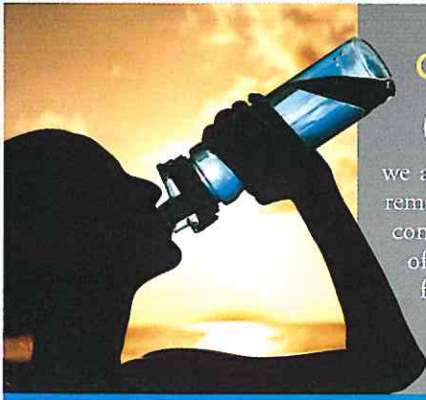


ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020



Presented By
Village of Willowbrook



Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Where Does My Water Come From?

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the city and suburbs, while the Sawyer (formerly South) Water Purification Plant serves the southern areas of the city and suburbs. Lake Michigan is the only Great Lake that is entirely within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin and is the second largest Great Lake by volume, with 1,180 cubic miles of water, and third largest by area.

The Village of Willowbrook purchased approximately 335 million gallons of Chicago water from the DuPage Water Commission through a 20-inch supply main connected directly to the DuPage Water Commission supply grid. This connection provides all the water required by the village's local and retail customers. This water enters a storage standpipe and pumping station complex and is then pumped to the village's residential and retail customer base. The water is sampled and chlorinated as required to maintain the quality as delivered by the DuPage Water Commission from the City of Chicago.

Throughout history, extraordinary steps have been taken to ensure a safe source of drinking water in the Chicagoland area, from building offshore cribs and introducing 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 Water Management, Department of Environment, and the Metropolitan Water Reclamation District of Greater Chicago to ensure the safety of the city's water supply.

Water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (for example, spills, tanker leaks, exotic species) 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 maintain or improve water quality.

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 along the Illinois boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities have this goal. 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 stormwater drains and their direct link to the lake within the identified local source water area. A proven best management practice for this purpose has been the identification and stenciling of stormwater drains within a watershed. Stenciling, along with an educational component, is necessary to keep the lake a safe and reliable source of drinking water.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact Village Hall at (630) 323 8215 or Brian Decker at (630) 514-3599.



Lead in Home Plumbing

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 are responsible for providing high-quality drinking water, but 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 two 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

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**We remain vigilant in
delivering the best-quality
drinking water**



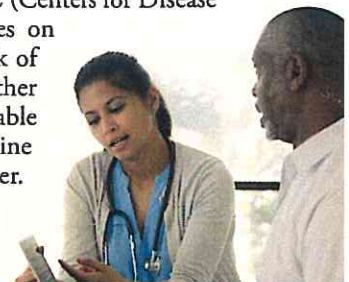
Description of the Water Treatment Process

The treatment train (a series of processes applied in a sequence) for your water includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny, sticky particles called "floc," which attract the dirt particles. Flocculation (the formation of larger floc particles from smaller ones) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin.

The clear water then moves to the filtration process, where it passes through sand-and-gravel filters that remove even smaller particles. A small amount of chlorine is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before it is stored and distributed to homes and businesses in the community.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by Illinois EPA.

REGULATED SUBSTANCES

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE |
|---|-----------------|------------------------------------|-----------------|--------------------|-------------------|-----------|---|
| Barium (ppm) | 2019 | 2 | 2 | 0.0208 | 0.0195–0.0208 | No | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Chlorine (ppm) | 2020 | [4] | [4] | 1.18 | 0.70–1.18 | No | Water additive used to control microbes |
| Fluoride ¹ (ppm) | 2019 | 4 | 4 | 0.79 | 0.62–0.79 | No | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Haloacetic Acids [HAAs] (ppb) | 2020 | 60 | NA | 27.1 | 1.09–27.1 | No | By-product of drinking water disinfection |
| Nitrate (ppm) | 2019 | 10 | 10 | 0.35 | 0.33–0.35 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| TTHMs [Total Trihalomethanes] (ppb) | 2020 | 80 | NA | 31.0 | 31.0–35.0 | No | By-product of drinking water disinfection |
| Total Nitrate + Nitrite (ppm) | 2019 | 10 | 10 | 0.35 | 0.33–0.35 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Turbidity ² (NTU) | 2019 | TT | NA | 0.14 | 0.14–0.14 | No | Soil runoff |
| Turbidity (lowest monthly percent of samples meeting limit) | 2019 | TT = 95% of samples meet the limit | NA | 100 | NA | No | Soil runoff |

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AL | MCLG | AMOUNT DETECTED (90TH %ILE) | SITES ABOVE AL/TOTAL SITES | VIOLATION | TYPICAL SOURCE |
|--------------------------------|-----------------|-----|------|-----------------------------------|----------------------------------|-----------|--|
| Copper (ppm) | 2017 | 1.3 | 1.3 | 0.08 | 0/20 | No | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (ppb) | 2017 | 15 | 0 | 2.1 | 0/20 | No | Corrosion of household plumbing systems; erosion of natural deposits |

STATE REGULATED SUBSTANCES

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE |
|--------------------------------|-----------------|---------------|-----------------|--------------------|-------------------|-----------|--|
| Sodium ³ (ppm) | 2019 | NA | NA | 10.2 | 8.73–10.2 | No | Erosion of naturally occurring deposits; used in water softener regeneration |

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

UNREGULATED SUBSTANCES¹

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE |
|-----------------------------|--------------|-----------------|----------------|---|
| Sulfate (ppm) | 2019 | 26.7 | 25.8–26.7 | Erosion of naturally occurring deposits |

¹ Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7 mg/L, with a range of 0.6 to 0.8 mg/L.

² Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

³ Sodium is not currently regulated by the U.S. EPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

⁴ Neither an MCL nor mandatory health effects language for this contaminant have been established by state or federal regulations. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determines the susceptibility of the source water to contamination.

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 such a distance that shoreline impacts are not usually considered a factor for 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 water fowl, such as gulls and terns, that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and compromising the source water quality. The shore intakes are also highly susceptible to stormwater runoff and marina and shoreline point sources due to the influx of groundwater to the lake. Further information on our community water supply's SWAP is available by contacting City of Chicago, Water Management, at (312) 744-6635.

What type of container is best for storing water?

Consumer Reports has consistently advised that glass or BPA-free plastics such as polyethylene are the safest choices. To be on the safe side, don't use any container with markings on the recycle symbol showing "7 PC" (that's code for BPA). You could also consider using stainless steel or aluminum with BPA-free liners.

How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can only survive 1 week without water.

How long can I store drinking water?

The disinfectant in drinking water will eventually dissipate, even in a closed container. If that container housed bacteria prior to filling up with the tap water, the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

How long does it take a water supplier to produce one glass of drinking water?

It could take up to 45 minutes to produce a single glass of drinking water.

How many community water systems are there in the U.S.?

About 53,000 public water systems across the United States process 34 billion gallons of water per day for home and commercial use. Eighty-five percent of the population is served by these systems.

Which household activity wastes the most water?

Most people would say the majority of water use comes from showering or washing dishes; however, toilet flushing is by far the largest single use of water in a home (accounting for 40% of total water use). Toilets use about 4–6 gallons per flush, so consider an ultra-low-flow (ULF) toilet, which requires only 1.5 gallons.