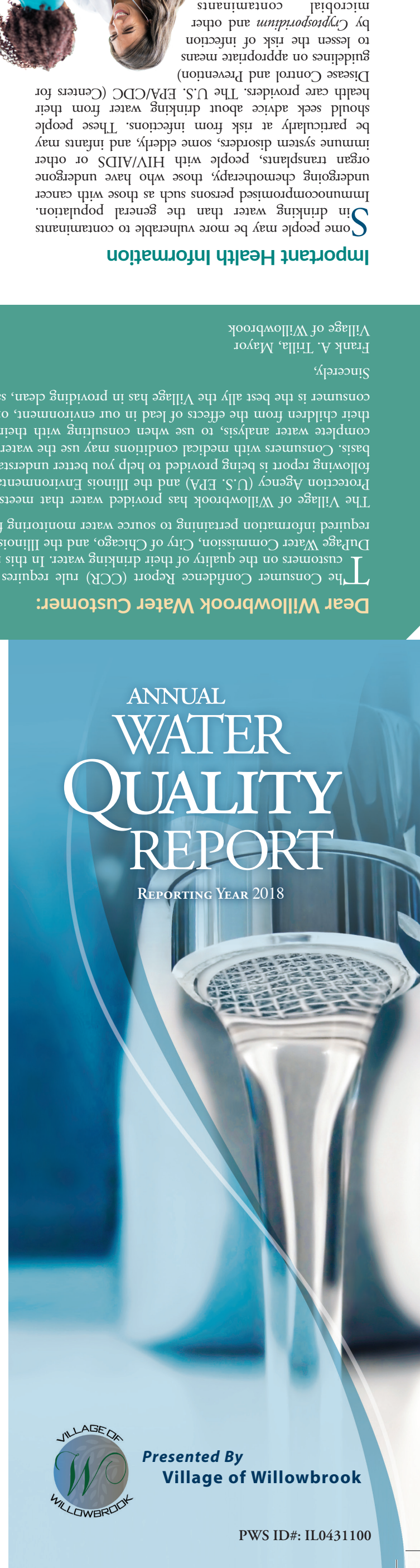
ANNUAL WATER QUALITY REPORT

Reporting Year 2018



Presented By
Village of Willowbrook

PWS ID#: IL0431100

Village of Willowbrook
835 Midway Drive
Willowbrook, IL 60527

Dear Willowbrook Water Customer:

The Consumer Confidence Report (CCR) rule requires all community water systems to provide reports to their customers on the quality of their drinking water. In this report, the Village of Willowbrook, in conjunction with the DuPage Water Commission, City of Chicago, and the Illinois Environmental Protection Agency (IEPA), is providing the required information pertaining to source water monitoring for the period January 2018 through December 2018.

The Village of Willowbrook has provided water that meets all the requirements of the United States Environmental Protection Agency (U.S. EPA) and the Illinois Environmental Protection Agency (IEPA) drinking water standards. The following report is being provided to help you better understand the quality of the water you consume and use on a daily basis. Consumers with medical conditions may use the water quality analysis provided here to request a City of Chicago complete water analysis, to use when consulting with their family doctors. Others may learn ways to better protect their children from the effects of lead in our environment, or how to conserve water in our daily lives. A well-informed consumer is the best ally the Village has in providing clean, safe water to its consumers.

Sincerely,

Frank A. Trilla, Mayor
Village of Willowbrook

Source Water Assessment Summary

The Illinois EPA has implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventoried potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the SWAP for our supply. Further information on our community water supply's SWAP is available by calling the City of Chicago, Department of Water Management, at (312) 744-6635.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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.

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 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Cryptosporidium

The City of Chicago has continued monitoring for *Cryptosporidium*, Giardia, and *E. coli* in its source water as part of its water quality program. To date, *Cryptosporidium* has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September of 2010. Treatment processes have been optimized to provide effective barriers for removal of *Cryptosporidium* oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of *Cryptosporidium* and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has continued the 24-month-long monitoring program that was started in April 2015, collecting samples from its source water once per month to monitor for *Cryptosporidium*, Giardia, *E. coli*, and turbidity, with no detections for *Cryptosporidium* and Giardia reported so far.

Description of the Water Treatment Process

Your water is treated in a treatment train (that is, a series of processes applied in a sequence) that 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 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 the water 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 water is stored and distributed to homes and businesses in the community.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact Joe Coons, Superintendent of Public Works, at (630) 920-2250.

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 that 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.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2018. 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 often 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 IEPA.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2014	15	0	6.6	6.1–6.6	No	Decay of natural and man-made deposits
Barium (ppm)	2018	2	2	0.0214	0.0203–0.0214	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2018	[4]	[4]	1.09	0.71–1.09	No	Water additive used to control microbes
Combined Radium (pCi/L)	2014	5	0	0.84	0.50–0.84	No	Decay of natural and man-made deposits
E. coli (# positive samples)	2018	see footnote 1	0	0	NA	No	Naturally present in the environment
Fluoride[2] (ppm)	2018	4	4	0.86	0.64–0.86	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2018	60	NA	18	15.4–17.9	No	By-product of drinking water disinfection
Nitrate (ppm)	2018	10	10	0.42	0.31–0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	31	31–31	No	By-product of drinking water disinfection
Total Nitrate + Nitrite (ppm)	2018	10	10	0.42	0.31–0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity[3] (NTU)	2018	TT	NA	0.19	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2018	TT	TT = 95% of samples meet the limit	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[4] (ppm)	2018	NA	NA	8.89	8.14–8.89	No	Erosion of naturally occurring deposits; Used in water softener regeneration

UNREGULATED SUBSTANCES[5]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sulfate (ppm)	2018	27.6	26.3–27.6	Erosion of naturally occurring deposits

[1] Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

[2] 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 mg/L to 0.8 mg/L.

[3] 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.

[4] There is no state or federal MCL for sodium. 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. the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

[5] 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 of monitoring unregulated contaminants is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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

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.

Where Does My Water Come From?

The City of Chicago uses 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 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 350 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 is received into a water storage standpipe and pumping station complex, and is then pumped to the Village's local 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.

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 a distance such that shoreline impacts are not usually considered a factor on 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 waterfowl, gulls, and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas, and shoreline point sources due to the influx of groundwater to the lake. Further information on our community water supply's Source Water Assessment Program may be accessed on the Illinois EPA website at http://dataservices.epa.illinois.gov/swap/factsheet.aspx

Throughout history, there have been extraordinary steps taken to assure a safe source of drinking water in the Chicagoland area: from the building of the offshore cribs and the introduction of 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 MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (e.g., spills, tanker leaks, exotic species, etc.) and general lake conditions are frequently discussed during the association's quarterly meetings. In addition, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality.

Finally, 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 within Illinois' boundary of the Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. 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 storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

Radon

Our system monitored for radon and found levels of 0 pCi/L.

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 pCi/L or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program, or call the U.S. EPA Radon Hotline at (800) SOS-RADON.

Community Participation

We meet the 2nd and 4th Mondays of each month, beginning at 6:30 p.m., at the Willowbrook Police Department Training Room, 7760 Quincy Street, Willowbrook, IL. You are invited to participate in our public forum and voice your concerns about your drinking water.