

## **Leyden Township**

### **RE: IL0315880 Consumer Confidence Annual Water Quality**

#### **Report January 1, 2019 to December 31, 2019**

This publication conforms to the new federal regulation under the S.D.W.A. that requires water utilities to provide detailed water quality to each of their customers annually. Leyden Township must provide you with this information.

This report is intended to provide you with important information about your drinking water and efforts made by Leyden Township Water Department to provide safe drinking water to all residents.

If you have any questions relating to your water supply, and this report, please contact Mr. Marcin Mitek, Certified Water Operator for Leyden Township at 847-455-8616.

Have a friend or relative translate this report to non-speaking/reading resident.

This Report will try to answer most common questions about your drinking water. Leyden Township receives its water originally from the City of Chicago via Lake Michigan. The water is then purchased through the Village of Melrose Park water supply system and the Franklin Park water system.

Lake Michigan is the surface water supply used to provide drinking water for Chicago and 123 suburban communities. The Environmental Protection Agency (EPA) has found that the quality of Lake Michigan has improved dramatically over the past 21 years. Lake Michigan, by volume, is the second largest Great Lake and the only one located totally within the United States. It serves as a source of drinking water, as a place for swimming and fishing, and as a scenic wonderland. Sources of drinking water used for both tap water and bottled water can pick up contaminants as water travels over the surface of the land or through the ground. The drinking water source is vulnerable to industrial waste and runoff from surrounding lands. Potential sources of pollution such as pesticides, herbicides, radioactive materials, and organic and inorganic petroleum and gas production by-products can impact the source water. We do not have indications of the presence of these contaminants at this time, mainly because of restrictions, which prohibit industrial effluents from entering Lake Michigan; Sewage treatment plant effluents are not discharged into the lake, thereby reducing the threat of microbial contamination. All 63 miles of shoreline within Illinois are now considered to be in good condition. The Illinois EPA Office of Groundwater will be doing a source water assessment within the next three years. When completed, all sources of Pollutants into Lake Michigan will be identified and there will be information regarding the source water's susceptibility to contaminants based on the findings of the assessment. Since the quality of the raw water source is good, conventional treatment methods of disinfection, coagulation and sedimentation, and sand filtration are adequate for producing water that is free of harmful contaminants.

The City of Chicago Water Department provides the water treatment necessary to safeguard the water delivered through Melrose Park and then on to Leyden Township. Water is taken from Lake Michigan at several water inlets located just off shore. Chlorine is then injected into the water for disinfection. The water is processed through settling and filtration where the water is filtered to remove any sedimentation that exists in the water. After any remaining particles are removed the water is then re-chlorinated as a precaution to eliminate any microorganisms still remaining. The City of Chicago Water Department monitors and proceeds with voluntary testing for many contaminants which are regulated but no current standards currently exist.

**Cryptosporidium:** a microscopic organism that can cause illness similar to that of gastrointestinal symptoms. Analyses have been conducted monthly. Cryptosporidium has not been detected in any sample testing. Treatment processes have been optimized to ensure that if there are cryptosporidium cysts in the source water they will be removed during the treatment process. By maintaining a low Turbidity (cloudiness from soil runoff), through proper filtration and disinfectants, the threat of cryptosporidium organisms in the drinking water system is dramatically reduced.

**Asbestos:** samples are examined for asbestos fibers in the source water and finished water on a routine basis. The EPA has determined that asbestos fibers in high levels for long periods of time may cause lung cancer. Fibers in high levels have not been found.

**Sodium:** there is not a state or federal acceptable level for sodium amounts in water. The City of Chicago is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions.

The water is now ready to be distributed to adjoining towns. The city of Chicago carefully monitors the chlorine amounts so as not to compromise taste and odor. Fluoride is also added to fight the battle of tooth decay.

Leyden Township Water Department also monitors the levels of contaminants exiting in the water as it enters our distribution system, adding chlorine when tests results show abnormal levels of contaminants. The Township works adamantly to ensure the delivery of safe and tasteful drinking water to all its residents.

## **SPECIAL HEALTH INFORMATION**

### **FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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.

#### **Contaminants that might be present in source water include:**

**Microbial Contaminants:** such as viruses and bacteria, this 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 storm water runoff, domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticides and Herbicides:** This may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff and septic systems.

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

In order to ensure the tap water is safe to drink, EPA prescribes regulations which limit the number 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. 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 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.

The water, originating from the City of Chicago, is purchased through the Village of Melrose Park's water system and stored in the Township's 1-million-gallon water tank, located on 25<sup>th</sup> Ave. It is then pumped throughout the Township's pumping station, located adjacent from the water tank, throughout the township on demand.

The attached tables show the Water Quality Data for the sources of water from which Leyden Township receives its water for distribution, via City of Chicago and Village of Melrose Park. These reports showing any and all detected contaminants results monitored for the 2019 calendar year can be found on the IEPA website.

### **Water Conservation Tips**

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water and sewer bills. Here are a few suggestions.

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full. You can conserve outdoors as well:
- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

### **Unit of Measurement — Definition**

*ppt* - Parts per trillion, or nanograms per liter

*ppm* - Parts per million, or milligrams per liter

*ppb* - Parts per billion, or micrograms per liter

*pci/l* - Pico curies per liter, used to measure radioactivity

# Consumer Confidence Report

## Annual Drinking Water Quality Report

LEYDEN TWSP WATER DISTRICT

IL0315880

Annual Water Quality Report for the period of January 1 to December 31, 2019

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 LEYDEN TWSP WATER DISTRICT is Purchased Surface Water

For more information regarding this report contact:

Name           Marcin Mitek          

Phone           847-455-8616          

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

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.
Contaminants that may be present in source water include: <ul style="list-style-type: none"><li>- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</li><li>- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.</li><li>- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.</li><li>- 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 storm water runoff, and septic systems.</li><li>- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.</li></ul>

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 EPAs 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 (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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a> .

Source Water Information

Source Water Name

Type of Water

Report Status

Location

CC 01-HSP DISCHARGE LINE

FF IL0311860 TP02: LAKE

SW

\_\_\_\_\_

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## 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 847-455-8616. 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>.

Source of Water: 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 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.

**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: 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
Lead	09/21/2017	0	15	7.65	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Water Quality Test Results**

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

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 bacteria 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.

Maximum Contaminant Level or 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 or 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 or 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 or 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.

na: not applicable.

mrem: millirems per year (a measure of radiation absorbed by the body)

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

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

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

**Regulated Contaminants**

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2019	0.9	0.9 - 0.9	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2019	13	8.9 - 16.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2019	32	17 - 53.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

# 2019 Water Quality Data

DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT  
0316000 CHICAGO

**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 MCLGs as feasible using the best available treatment technology.*

**Highest Level Detected:** *This column represents the highest single sample reading of a contaminant of all the samples collected in 2019.*

**Range of Detections:** *This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.*

**Date of Sample:** *If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.*

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

**N/A:** *Not applicable*

## DETECTED CONTAMINANTS

Contaminant (unit of measurement) <i>Typical source of Contaminant</i>	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
<b>Turbidity Data</b>						
<b>Turbidity (NTU/Lowest Monthly % ≤0.3 NTU)</b> <i>Soil runoff</i>	N/A	TT (Limit: 95%≤0.3 NTU)	Lowest Monthly %: 100%	100% - 100%		
<b>Turbidity (NTU/Highest Single Measurement)</b> <i>Soil runoff</i>	N/A	TT (Limit 1 NTU)	0.14	N/A		
<b>Inorganic Contaminants</b>						
<b>Barium (ppm)</b> <i>Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits</i>	2	2	0.0208	0.0195 – 0.0208		
<b>Nitrate (as Nitrogen) (ppm)</b> <i>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</i>	10	10	0.35	0.33 – 0.35		
<b>Total Nitrate &amp; Nitrite (as Nitrogen) (ppm)</b> <i>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</i>	10	10	0.35	0.33 – 0.35		
<b>Total Organic Carbon (TOC)</b>						
<b>TOC</b>	The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA.					
<b>Unregulated Contaminants</b>						
<b>Sulfate (ppm)</b> <i>Erosion of naturally occurring deposits</i>	N/A	N/A	26.7	25.8 – 26.7		
<b>Sodium (ppm)</b> <i>Erosion of naturally occurring deposits; Used as water softener</i>	N/A	N/A	10.2	8.73 – 10.2		
<b>State Regulated Contaminants</b>						
<b>Fluoride (ppm)</b> <i>Water additive which promotes strong teeth</i>	4	4	0.79	0.62 – 0.79		
<b>Radioactive Contaminants</b>						
<b>Combined Radium (226/228) (pCi/L)</b> <i>Decay of natural and man-made deposits.</i>	0	5	0.84	0.50 – 0.84		02-11-2014
<b>Gross Alpha excluding radon and uranium (pCi/L)</b> <i>Decay of natural and man-made deposits.</i>	0	15	6.6	6.1 – 6.6		02-11-2014

### Units of Measurement

**ppm:** Parts per million, or milligrams per liter

**ppb:** Parts per billion, or micrograms per liter

**NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

**%≤0.3 NTU:** Percent of samples less than or equal to 0.3 NTU

**pCi/L:** Picocuries per liter, used to measure radioactivity

### TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

### UNREGULATED CONTAMINANTS

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 for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

### FLUORIDE

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.

### SODIUM

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.

## SOURCE WATER ASSESSMENT SUMMARY

### Source Water Location

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 contained 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.

### 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 determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

### Susceptibility 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 of all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance 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 is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

## 2019 VOLUNTARY MONITORING

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 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.

In 2019, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

[http://www.cityofchicago.org/city/en/depts/water/supp\\_info/water\\_quality\\_resultsandreports/city\\_of\\_chicago\\_emerigincontaminantstudy.html](http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emerigincontaminantstudy.html)

For more information, please contact  
Andrea Putz, Deputy Commissioner, Water Quality - Bureau of Water Supply  
at 312-744-8190

Chicago Department of Water Management  
Bureau of Water Supply  
1000 East Ohio Street  
Chicago, IL 60611  
Attn: Andrea Putz

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by:  
The City of Chicago  
Department of Water Management  
Water System ID# IL0316000