



# ANNUAL WATER QUALITY REPORT

For the period of  
January 1 to December 31, 2016

This report is intended to provide you with important information about your drinking water and the efforts made by the Lakewood Water System to provide safe drinking water.

The source of drinking water used by Lakewood is Ground Water. For more information regarding this report, contact our Water Operator, Gary Zickuhr/ROINC at (815) 459-3025.

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

## SOURCE WATER INFORMATION

Source Water Name: Well 1 (20158)  
Type of Water: Ground Water  
Report Status: ACTIVE  
Location: 9550 Turnberry Trail

Source Water Name: Well 3 (00627)  
Type of Water: Ground Water  
Report Status: ACTIVE  
Location: 9550 Turnberry Trail

Source Water Name: Well 4 (01411)  
Type of Water: Ground Water  
Report Status: ACTIVE  
Location: 10000 Appleton Lane

Source Water Name: Well 5 (01417)  
Type of Water: Ground Water  
Report Status: Emergency Backup  
Location: 10050 Palmer Dr.

Source Water Name: Well 6 (01686)  
Type of Water: Ground Water  
Report Status: ACTIVE  
Location: 10000 Appleton Lane

Wells 1, 3 & 5 utilize bedrock aquifers from Devonian to Cambrian in age that are overlain by materials of low permeability (permeability is a measure of the ability of a soil or sediment to transmit fluids) and are not considered geologically sensitive by the Illinois EPA. In addition, Well #4 & #6 are constructed in a sand and gravel formation that is overlain with permeable sand and gravel within 20 feet of land surface, these are considered geologically sensitive.

## 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. Visit [village.lakewood.il.us](http://village.lakewood.il.us) for Village Board Meeting schedule.

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 Village Hall or call our water operator Gary Zickuhr/ROINC at (815) 459-3025. 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>

Based on information obtained in the well site survey report published by the Illinois EPA and information provided by the Leaking Underground Storage Tank Section of the Illinois EPA, one (1) ongoing remediation site was identified.

The site received an NFR letter (No Further Remediation) on 05/08/1997. The NFR letter means that the site has been remediated and no further actions are required. The Illinois EPA has determined that the source water used by the Lakewood Community Water Supply Wells #1, #3 and #5 are not geologically sensitive to contamination. However, the source water which will be used by the Village's Well #4 and Well #6 are geologically sensitive to contamination. These determinations are based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydro-geologic data on the wells.

## 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:

- 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 storm water 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 storm water 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 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.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800-426-4791).

## WATER QUALITY TEST RESULTS

The following tables contain scientific terms and measures, some of which may require explanation. These definitions pertain to the water quality tables located on the following page.

**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 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 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.

**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.

**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.

**pCi/L:** Picocuries per liter (a measure of radioactivity).

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

# Water Quality Test Results

## 2016 Regulated Contaminants Detected

Lead and Copper	Date Sampled <sup>1</sup>	MCLG	Action Level (AL)	90th Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Lead	12/3/2014	0	15	2.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	12/3/2014	1.3	1.3	0.831	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. Copper is a Secondary regulated contaminate.

### Lead & Copper

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, but the Village of Lakewood is responsible for providing high quality drinking water. 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>

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MGCL	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2016	1.4	0.5 - 1.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5) <sup>2</sup>	8-12-2016	30	6 - 30	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) <sup>3</sup>	8-12-2016	59	29.2 - 59	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MGCL	MCL	Units	Violation	Likely Source of Contamination
Arsenic	8-19-2016	1.2	1.2 - 1.2	0	10	ppm	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production waste.
Barium <sup>4</sup>	11-16-2016	1.3	0.061 - 1.3	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride <sup>5</sup>	8-20-2016	0.914	0.914 - 0.914	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	8-19-2016	0.32	0.32 - 0.32		1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	8-19-2016	2.1	2.1 - 2.1	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium <sup>6</sup>	8-19-2016	13	13 - 13			ppm	N	Erosions from naturally occurring deposits; Used in water softener regeneration.
Zinc	8-19-2016	6	6	5	5	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates Zinc as a Secondary Contaminant. Naturally occurring or is discharged from metal factories

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MGCL	MCL	Units	Violation	Likely Source of Contamination
Combined Radium <sup>7</sup> 226/228	11-16-2016	1.79	1.79 - 1.79	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	11-16-2016	2.22	2.22 - 2.22	0	15	pCi/L	N	Erosion of natural deposits.

## 2016 Non-Regulated Contaminants Detected

Volatile Organic Compounds (VOC)	Collection Date	Highest Level Detected	Range of Levels Detected	MGCL	MCL	Units	Violation	This is a non-regulated contaminant
MTBE (methyl-t-butyl ether)	11-16-2016	1.8	1.1 - 1.8	N/A	N/A	ppb	N	Likely Source of Contaminant. Releases of MTBE to ground and surface water can occur through leaking underground storage tanks and pipelines, spills, emissions from marine engines into lakes and reservoirs, and to some extent from air deposition.

### Footnotes

- 1) DATE OF SAMPLE: The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.
- 2) COPPER: is a secondary regulated contaminant and is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician.
- 3) HAA5: Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
- 4) TTHMs: 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 systems, and may have an increased risk of getting cancer.
- 5) BARIUM: A barium violation occurs when the average quarterly samples exceed the MCL.
- 6) FLUORIDE: Fluoride is added to the water supply to promote strong teeth. The Illinois Department of Public Health recommends an optimal Fluoride range of 0.6mg/l to 0.8mg/l.
- 7) SODIUM: There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.
- 8) RADIOACTIVE CONTAMINANTS: Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.