



VILLAGE OF LAKE BLUFF 2013 ANNUAL REPORT DRINKING WATER QUALITY

Dear Water Customer,

This is your annual drinking water quality report for the period of January 1 through December 31, 2012. Each year the Village issues this report to provide you information about the quality of our drinking water, the source of our water, how it is treated, and the regulated compounds it contains. These reports are issued in compliance with the Safe Drinking Water Act. For more detailed information about our water's quality, including test results for unregulated compounds, contact Melissa Olenick at the Central Lake County Joint Action Water Agency (CLCJAWA) at 847-295-7788, or George Russell, Village Engineer, at 847-283-6884. Residents are also welcome to visit clc-jawa.com or lakebluff.org. Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Where does our water come from?

Our Village purchases water from the CLCJAWA. CLCJAWA is an intergovernmental cooperative, formed by the communities it serves, including: Grayslake, Gurnee, Lake Bluff, Libertyville, Mundelein, Round Lake, Round Lake Beach, Round Lake Heights, Round Lake Park, and Lake County representing the unincorporated areas of Knollwood, Rondout, Wildwood and Vernon Hills.

How is our water treated?

Our water is pumped from Lake Michigan and treated at CLCJAWA's Paul M. Neal Water Treatment Facility in the Village of Lake Bluff. The enhanced water purification process used by CLCJAWA is unique. First, the water is treated with ozone to kill organisms and break down contaminants. Ozone is produced on-site from air, bubbled into the water, and then converted back into oxygen. The water is then mixed with coagulant to remove sediment and other material from the water. Once clarified, the water is further refined as it passes through filters containing activated carbon and fine sand. Next, the water is treated with ultraviolet light to inactivate any remaining organisms. Finally, the purified water is treated with chlorine to protect it as it travels through the water main, fluoride for dental health, and a small amount of an often used food additive called phosphate. Phosphate protects the

water from the metals found in our homes' plumbing systems.

CLCJAWA is an eight-time Excellence in Water Treatment award winning facility. CLCJAWA was the third facility in the nation to achieve this distinction presented by the Partnership for Safe Water. This voluntary water quality program, sponsored in part by the United States Environmental Protection Agency, holds its awardees to higher standards than required by current drinking water regulations.

How is the water delivered to my tap?

All water purchased from CLCJAWA enters the Village's water distribution system at the Village's one-million gallon elevated water tank located along Illinois Route 176. From the tank water is delivered throughout the Village via a network of 39 miles of cast iron and ductile iron watermains. The Village has an ongoing program to remove and replace older watermains to further assure the continued, uninterrupted conveyance of quality drinking water to your tap. Each property owner has their own water service line that extends from each building to the public watermain, which is typically located within the public right-of-way. If there should be a problem with the Village's supply of water, the Village does have emergency interconnections with the City of Lake Forest's water system. Both the Village and the City of Lake Forest have the ability to transfer water across systems should an occasion occur where one community's primary source of supply is unable to provide water.

How is our water's quality assured?

Our tap water quality is consistently monitored by the Village, by the Illinois Environmental Protection Agency (IEPA), in the CLCJAWA Water Quality Lab, and by other independent labs. This aggressive water quality assurance program is thorough: bacteriological tests are conducted six times more often than required, water clarity is monitored every 10 seconds, and our water is checked for hundreds of contaminants.

How is our drinking water regulated?

To ensure tap water safety, the U.S. Environmental Protection Agency (USEPA) prescribes limits on the amount of certain contaminants in our drinking water.

**CLCJAWA is an
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Excellence in Water
Treatment award
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Water quality may be judged by comparing our water to USEPA benchmarks for water quality. One such benchmark is the Maximum Contaminant Level Goal (MCLG). The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. This goal allows for a margin of safety. Another benchmark is the Maximum Contaminant Level (MCL). An MCL is the highest level of a contaminant that is allowed in drinking water. An MCL is set as close to an MCLG as feasible using the best available treatment technology.



What regulated compounds are found in our drinking water?

The table below lists all of the regulated compounds detected in our water. Bolded compounds were measured by the Village; all other compounds were measured by CLCJAWA. The values shown in the Level Detected column are those used by the EPA to determine compliance with drinking water standards. Because each compound is regulated differently, this value may be a running average, a 90th percentile, or the maximum single value. The Sample Date column indicates the date when the sample was collected. When more than one sample is collected, this column shows the date of the maximum value. Explanation of MCLG and MCL may be found in the Abbreviation Table on the following page.

Compound (Units)	Levels Detected	Range of Levels Detected	MCLG	MCL	Violation ?	Sample Date	Primary Compound Sources
Alpha Emitters (pCi/l)	2.6	Single Sample	0	15	No	11/12/08	Decay of natural deposits
Barium (ppm)	0.0197	Single Sample	2	2	No	07/05/12	Erosion of natural deposits, runoff, metal refinery discharge
Beta/Photon Emitters (mrem/yr)	3.9	Single Sample	0	50	No	11/12/08	Decay of natural deposits
Bromate (ppb)	1	<1 - 3.7	0	10	No	07/24/12	By-product of disinfection
Chlorine (ppm)	1.11	0.39 - 1.11	4	4	No	07/20/12	Added for disinfection
Combined Radium 226/228 (pCi/l)	1.6	0.88 - 1.6	0	5	No	2008 - 2012	Decay of natural deposits
Fluoride (ppm)	1	0.86 - 1.03	4	4	No	2012	Added for dental health
Nitrate (ppm)	0.447	Single Sample	10	10	No	04/02/12	Naturally occurring
Sodium (ppm)	8.0	Single Sample	None	None	No	07/05/12	Erosion of natural deposits, runoff
Total Haloacetic Acids (ppb)	1.4	Single Sample	None	60	No	07/19/12	By-product of chlorine disinfection
Total Trihalomethanes (ppb)	16	Single Sample	None	80	No	07/19/12	By-product of chlorine disinfection
Turbidity (% acceptable)	100%	100%	None	0.3 TT	No	2012	Lake sediment, soil runoff
Turbidity (NTU)	0.09	0.02 - 0.09	None	1 TT	No	2012	Lake sediment, soil runoff

Compound (Units)	Levels Detected	# Sites Over Action Level	MCLG	Action Level	Violation ?	Sample Date	Primary Compound Sources
Copper (ppm)	0.133	0	1.3	1.3	No	07/2011	Household plumbing corrosion
Lead (ppb)	12.1	0	0	15	No	07/2011	Household plumbing corrosion



Abbreviation	Definitions
Action Level	Action Level is the level that triggers special treatment or other required actions by a water supply.
MCL	Maximum Contaminant Level is the highest level allowed by EPA in drinking water.
MCLG	Maximum Contaminant Level Goal is the level of a contaminant below which there is no known or expected health risk.
NTU	Nephelometric Turbidity Units. Turbidity is a measure of water clarity.
pCi/l	pico Curies per liter. EPA considers 50 pCi/l to be a level of concern for beta particles.
pos/month	The maximum number of positive samples collected in a calendar month.
ppb	Parts-per-billion is also referred to as micrograms per liter (µg/L). Equivalent to one ounce in 7,350,000 gallons of water.
ppm	Parts-per-million is also referred to as milligrams per liter (mg/L). Equivalent to one ounce in 7,350,000 gallons of water.
TT	Treatment Technique refers to a required process intended to reduce contaminant level drinking water.

Lead and Copper:

Some homes with old lead service lines, lead plumbing, or copper plumbing with lead solder, may have lead and copper in their water. To minimize these levels, the Illinois EPA requires that CLCJAWA add phosphate to our water at a concentration of 0.3 ppm orthophosphate. This commonly used food ingredient coats the inside of your plumbing with a thin film. The film reduces lead and or copper levels that may have otherwise leached from your plumbing into your water.

Sodium:

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers in case you are concerned about sodium intake for dietary reasons. If the sodium level in our water was greater than 20 ppm, and you were on a sodium-restricted diet, you would be advised to consult a physician.

CLCJAWA & the Village were in full compliance with all drinking water regulations this year.

Turbidity:

Turbidity is a measure of water clarity. Treatment facilities monitor turbidity because it is a good indicator of water quality and the effectiveness of their filtration and disinfection systems. At CLCJAWA, turbidity is checked every ten seconds in numerous locations by automatic monitoring equipment and every four hours, by hand, in the laboratory.

Where do water contaminants come from?

Drinking water, including bottled water, may reasonably be expected to contain 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 may be obtained by calling the US Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 1-800-426-4791.

Both tap and bottled water come from rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground it dissolves naturally occurring materials and can pick up substances resulting from the presence of animal or human activity. Contaminants that may be present in untreated water include:

- Microbial contaminants such as viruses and bacteria can be naturally occurring or may come from sewage treatment plants, septic systems, and livestock operations.
- Inorganic contaminants such as salts and metals can be naturally occurring or result from urban storm water runoff, wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides come from sources such as agricultural and residential storm water runoff.
- Organic chemical contaminants including synthetic and volatile organic compounds are by-products of industrial processes and petroleum production but can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants can be naturally occurring or be the result of oil, gas, and mining activities.



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Has Lake Michigan been assessed to determine how susceptible it is to potential contamination?

The Illinois EPA, using the Great Lakes Protocol, completed an assessment in April 2003. Lake Michigan is a surface water source and like all surface waters, is susceptible to potential contaminants. The very nature of surface water allows contaminants to migrate to the intake with no protection, only dilution. CLCJAWA's intake is ranked as moderately sensitive to potential contaminants. There are no potential contamination sources within the intake's critical assessment zone. However, the combination of land use, storm sewer outfalls, and the proximity of North Shore Sanitary District (NSSD) pumping stations in the immediate area add to the susceptibility of CLCJAWA's intake. NSSD discharges their treated waste water to the Des Plaines River and not into Lake Michigan.

Keep our rivers and lakes clean. Never flush or pour unused medications down the drain.

We are all participants in the water cycle. Our individual activities impact the rivers and lakes in our watershed and those into which our waste water plants discharge. Please properly use, store, and dispose of all medications and household chemicals. Visit the Solid Waste Agency of Lake County website for disposal options and information at swalco.org.

How can Lead get into drinking water?

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. You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water for drinking or cooking. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. If you are concerned about lead in your water, you may wish to have your water tested. For more in-

formation on lead in drinking water, testing methods and steps you can take to minimize exposure, contact the Safe Drinking Water Hotline at 1-800-426-4791 or visit epa.gov/safewater/lead.

What precautions should immune compromised persons take?

Some people may be more vulnerable to drinking water contaminants than the general population. Immune 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 from their health care providers about drinking water. The USEPA and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking

Water Hotline at 1-800-426-4791.

Was CLCJAWA or the Village cited with any drinking water violations this year?

CLCJAWA and the Village of Lake Bluff were in full compliance with all drinking water regulations this year.

How can I get involved?

The Village Board meets the second and fourth Monday of each month, and the public is always welcome to attend any of these meetings. Village President, Kathleen O'Hara is also a member of the Board of Directors of CLCJAWA, which meets on the fourth Wednesday of each month. CLCJAWA provides tours of the water treatment facility, and staff members are also available for public speaking or for school visits. For more information please contact CLCJAWA at 847-295-7788, or Village Engineer George Russell at 847-283-6884.

**LOCAL RESIDENT
LAKE BLUFF, IL 60044**