Lead in Drinking Water

L ead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. The U.S. EPA estimates that more than 40 million U.S. residents use water that can contain lead in excess of the U.S. EPA's Action Level of 15 ppb.

Lead in drinking water is a concern because young children, infants, and fetuses appear to be particularly vulnerable to lead poisoning. A dose that would have little effect on an adult can have a big effect on a small body. On average, it is estimated that lead in drinking water contributes between 10% and 20% of total lead exposure in young children.

All kinds of water, however, may have high levels of lead. We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from five seconds to two minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact the Safe Drinking Water Hotline at 800.426.4791, or visit www.epa.gov/safewater/lead.

PR SRT STD U.S. Postage **PAID** Gemini Group 22901

Village of Oak Park 123 Madison Street Oak Park, IL 60302



What's in My Water?

We are pleased to report that during the past year, the water delivered to your home and business complied with or did better than, all state and federal drinking water requirements. For your information, we have compiled the tables below to show what substances were detected in our water for the period of January 1, 2006 through December 31, 2006. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel that it is important that you know exactly what was detected and how much of the substance was present in the water. The state allows us to monitor 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.

REGULATED SUBSTANCES			Village of City of Chicago			Chicago			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2006	2	2	NA	NA	0.020	0.020- 0.020	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2001	50	0	NA	NA	2.000	ND- 2.000	No	Decay of natural and man-made deposits
Chlorine (ppm)	2006	[4]	[4]	0.8558	0.7105– 0.8558	0.664	0.638- 0.664	No	Water additive used to control microbes
Fluoride (ppm)	2006	4	4	NA	NA	0.98	0.89–0.98	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2006	60	NA	17.4	7.9– 17.4	8.88	6.7–11.3	No	By-product of drinking water chlorination
Sodium ² (ppm)	2006	NA	NA	NA	NA	6.80	6.70–6.80	No	Erosion of naturally occurring deposits; used in water softener regeneration
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	26.5	11.7– 26.5	16.0	9.4–20.8	No	By-product of drinking water chlorination
Total Nitrate + Nitrite (ppm)	2006	10	10	NA	NA	0.35	0.3–0.35	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity ³ (NTU)	2006	TT	NA	NA	NA	0.15	ND-0.15	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	NA	NA	100	NA	No	Soil runoff

Tap water samples	trans called d		there is a set that	The second secon
gainmes Jaikw nei	were contected	Trom campie cirec	TOTALIANAM TOP	community
tup mutor oumpioo	HOLO GOHOULUU	Hom oumpic onco	unouquout uic	COMMINICAL

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2006	1.3	1.3	0.22	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2006	15	0	6	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES ⁴		Village of Oak Park		City of Chicago		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2006	NA	NA	18.0	14.0–18.0	Erosion of naturally occurring deposits; Used in detergents and as a water softener; Used in production of glass, cosmetics, pesticides, fire retardants, and for leather tanning.

1 The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

This contaminant 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.

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 Noither a Maximum Contaminant Level (MCL) per health effects leaving for this contaminant have been established by either at the system.

⁴ Neither a Maximum Contaminant Level (MCL) nor health effects language for this contaminant have been established by either state or federal regulations. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether or not future regulation is warranted.

Substances That Might Be in Drinking 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.

Table Definitions

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.

Cryptosporidium in Drinking Water

ryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctors regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Since April 1993, the Chicago Department of Water Management has conducted monthly *Cryptosporidium* analyses on the source water. *Cryptosporidium* has not been detected in these samples. Treatment processes have been optimized to ensure that if *Cryptosporidium* oocysts exist in the source water, they will be removed during the treatment process. By maintaining low turbidity and thereby removing the particles from the water, the possibility of *Cryptosporidium* organisms getting into the drinking water system is greatly reduced.

Continuing Our Commitment

The Village of Oak Park is proud to provide its residents with this annual water quality report. As a snapshot of last year's water quality, this report identifies the source of our water, what it contains, and the treatment process. As the report indicates, Oak Park's water quality has remained well within the U.S. Environmental Protection Agency's (U.S. EPA) guidelines for municipal water quality.

For more information on this report or for answers to any questions concerning Oak Park's drinking water, please contact Brian M. Jack, Superintendent of the Water and Sewer Division, at 708.358.5700, or e-mail publicworks@oak-park.us.

Community Participation

Village board meetings are held on the first and third Monday of each month at 7:30 p.m. in the Council Chambers at Village Hall, 123 Madison Street. For information on the agendas, call the Village Manager's office at 708.358.5770, or visit www.oak-park.us.

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.

Source Water Assessment

The Illinois EPA considers all surface water sources of community water supplies to be susceptible to potential pollution problems. The very nature of surface water is such that it is vulnerable to contaminants that can migrate into the intake. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance great enough that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, wet-weather flows and river reversals can potentially contaminate offshore intakes. 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 stormwater runoff, marinas, and shoreline point sources due to the influx of groundwater to the lake. Chicago has taken extraordinary steps to ensure a safe source of drinking water in the 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, the Department of Environment and the MWRDGC to ensure the safety of the city's water supply. Also, 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 the Illinois boundary of the Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at that 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 stormwater drains and their direct link to the lake within the identified local source water area. A proven best-management practice is necessary to keep the lake a safe and reliable source of drinking water.

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.

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.

Where Does My Water Come From?

Lake Michigan is Oak Park's sole source of drinking water. Our pretreated water arrives via pipelines from the City of Chicago. Only a small amount of chlorine needs to be added by Oak Park before pumping it into our system of 105 miles of water main. To ensure purity, water samples are routinely gathered throughout the water system, from the source right to your home. A state-certified lab tests the samples using equipment that can measure substances down to one part in a billion! In addition, the Village's treatment facility is constantly maintained, evaluated, and upgraded to incorporate the latest in technology, health sciences, and environmental regulations.