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Annual Water Quality Report

Water testing performed in 2011

Where Does My Water Come From?

Oak Park began receiving drinking water from Lake Michigan via the City of Chicago in 1912. The average daily pumpage back then was about 400,000 gallons per day for its 20,000 residents. Today we pump an average of 5.1 million gallons per day for our 52,000 residents. The going rate for water in 1912 was about \$0.07 per 1,000 gallons of water. Today, Oak Park's water rate is \$5.77 per 1,000 gallons.

Lake Michigan is the sole source of drinking water which arrives pretreated via pipelines from the City of Chicago's Jardine Water Purification Plant (which is the largest water treatment plant in the world!). Water is then stored in four underground reservoirs totaling 12.5 million gallons. As the water is stored in the reservoirs, the water remains in constant motion to maintain freshness. Then only a small amount of chlorine needs to be added by Oak Park before pumping it into our system of 105 miles of water mains. To ensure purity, water samples are routinely gathered throughout the water system, from the source, right o your home. A state-certified lab tests the samples using equipment that can measure substances down to one part in one billion!



Village of Oak Park
Village Hall
123 Madison Street
Oak Park, Illinois 60302-4272

Residential Customer Local
Oak Park, Illinois



PWS ID#: 0312250

Introduction



The Village of Oak Park is proud to provide its residents once again with this annual water quality report. This year's edition covers water tested from January 1, 2011 through December 31, 2011. This report is intended to provide you with important information about your drinking water. It includes

drinking water facts, information on violations, and contaminants detected in your drinking water supply. We continue to dedicate ourselves to supplying drinking water that exceeds all state and federal drinking water standards. As new challenges to drinking water safety emerge, we remain vigilant in meeting challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

The Village of Oak Park is committed to providing you with this information because informed customers are our best allies. Please share any thoughts with us. We welcome the opportunity to discuss any questions or comments you have by contacting Brian Jack, Water and Sewer Superintendent 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. at Village Hall, 123 Madison St. Village Board meeting agendas and minutes are posted at www.oak-park.us/agendas. Board meetings also are streamed live and archived at www.oak-park.us/boardtv. Follow us at twitter.com/vopnews, be a fan at facebook.com/vopnews and sign up for news via e-mail at www.oak-park.us.

Source Water Assessment

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 other than dilution. 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, 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 thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to



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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 building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's water ways and the city's Lakefront Zoning Ordinance. The City now looks to the Department of Water Management, the Department of Environment, and the Metropolitan Water Reclamation District of Greater Chicago (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. 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.

City of Chicago Emerging Contaminant Study Analysis of Endocrine Disrupting Chemicals, Pharmaceuticals, and Personal Care Products

The City of Chicago Department of Water Management (CDWM) has completed a water quality study to

monitor some compounds that have not historically been considered to be contaminants of concern, but have been recently documented at trace concentrations in our nation's waterbodies. This study, completed in the years 2009-2011, includes compounds known as Endocrine Disrupting Chemicals (EDCs) and Pharmaceuticals & Personal Care Products (PPCPs), which are considered to be emerging contaminants. EDCs are compounds with potential to interfere with the natural hormone systems. PPCPs are a group of compounds consisting of prescription or over-the-counter therapeutic drugs, veterinary drugs, and consumer products such as sun-screen, lotions, insect repellent, and fragrances. The reader is encouraged to visit the United States Environmental Protection Agency (USEPA) website to learn more about EDCs (<http://www.epa.gov/ncer/science/endocrine>), and PPCPs (<http://www.epa.gov/ppcp/>).

In 2011, CDWM has also monitored for hexavalent chromium, also known as Chromium-6, and continues to do so quarterly. 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 CDWM's Water Quality Division at 312.742.7499. A list of detected contaminants from the monitoring studies and additional information is posted on the City of Chicago's website which can be accessed at http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergingcontaminantstudy.html.

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 for 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.

What's in My Water?



The City of Chicago Department of Water Management routinely monitors for contaminants in our drinking water according to Federal and State Laws. The Village of Oak Park collects 60 bacteriological samples each month along with quarterly disinfectant bi-product sampling. The compiled tables below show what substances were detected in our water for the period of January 1, 2011 through December 31, 2011. 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 Illinois EPA requires the Village 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									
SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	Village of Oak Park		City of Chicago		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2011	2	2	NA	NA	0.0208	0.0201 - 0.0208	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2011	4	4	0.8	0.6462 - 0.8685	0.79	0.56 - 0.96	No	Water additive used to control microbes
Flouride (ppm)	2011	4	4	NA	NA	0.92	0.81 - 0.92	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	13	7.92 - 12.38	NA	NA	No	By-products of drinking water disinfection
TTHMs [Total Trihalo-methanes] (ppb)	2011	80	NA	29	14.35 - 46.6	NA	NA	No	By-products of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2011	5% of monthly samples are positive	0	ND	NA	ND	NA	No	Naturally present in the environment
Total Nitrate + Nitrite (ppm)	2011	10	10	NA	NA	0.44	0.39 - 0.44	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion from natural deposits
Turbidity (NTU) (Highest single measurement)	2011	TT=1NTU max	NA	NA	NA	0.86	NA	No	Soil runoff
Turbidity %<0.3 NTU (lowest monthly % of samples meeting limit)	2011	TT	NA	NA	NA	99.50%	99.50% - 100%	No	Soil runoff

Tap water samples were collected for lead and copper analysis from sample sites throughout the Village of Oak Park

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90th %TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2009	1.3	1.3	0.104	0/30	No	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2009	15	0	ND	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER SUBSTANCES (CITY OF CHICAGO RESULTS)

SUBSTANCE (UNITS OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium ¹ (ppm)	2011	6.64	6.63 - 6.64	Erosion of naturally occurring deposits; Used in water softener regeneration
Sulfate (ppm)	2011	16.1	14.4 - 16.1	Erosion of naturally occurring deposits

¹Sodium is not currently regulated by the U.S. EPA. However, the State of Illinois has set an MCL for this contaminant for supplies serving a population of 1,000 or more. 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 future regulation is warranted.

Definitions

AL (Action Level): The concentration of a contaminant that triggers treatment or other required action 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 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 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.

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).

Turbidity: Turbidity is a measure of the cloudiness of the water. The City of Chicago monitors it because it is a good indicator of water quality and the effectiveness of filtration system and disinfectants.

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

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 bottled and tap 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 use;
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are bi-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.

2011 Violation Summary

We are proud to report that no violations were received in the 2011 sampling year.

Protect Against Cross-Connections

What is a cross-connection? Cross-connections occur when potable water (safe drinking water) connects to any contaminated source. It is important to know how to protect your water system. Here are a few places in the home where a cross-connection can exist:

- Laundry sinks, wash basins, and boilers
- Swimming pools and lawn irrigation systems
- Garden hose connections to fertilizer sprayers

If a cross-connection is not properly protected and there is a drop in water pressure, untreated sources of contaminants can be drawn into your household plumbing system and into the Village's distribution system, which is known as backflow. Here is what you can do to prevent a backflow:

- Do not use a hose to open a clogged drain
- Do not leave a hose submersed in water while filling a bucket or pool
- Do not leave fertilizer applicators attached to a hose while not in use
- If you have an underground irrigation system, make sure that a proper cross-connection device is installed and inspected by a licensed CCCDI (Cross Connection Control Device Inspector)
- Install hose bib vacuum breakers

This year the Village of Oak Park will begin mailing residential cross-connection survey cards to gain information regarding cross-connections within our water system. This is an IEPA required survey that will only take minutes for residents to fill out and drop back in the mail. Any questions regarding this survey can be directed to the Public Works Department at 708.358.5700 or via e-mail at publicworks@oak-park.us.

Lead and Drinking Water

Oak Park is required to sample for lead and copper in our drinking water every three years in which 2009 was the last sample period. In June of 2012, we will again be sampling for these elements. Lead in drinking water is primarily from materials and components associated with water service lines and home plumbing fixtures. The Village is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Lead enters the water from lead solder, lead pipes or plumbing fixtures in the home. When water has been sitting for several hours, you can minimize the potential for lead exposure by flushing the tap for 30 seconds to two minutes before using water for drinking or cooking. You can also replace old plumbing fixtures with new more efficient fixtures that are lead free and help out in water conservation! More 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.

Water Conservation

The Village of Oak Park and the Chicago Metropolitan Agency for Planning (CMAP) have teamed up to create a Water Conservation Plan. The purpose of this plan is to develop an action-based framework for Oak Park to pursue conservation and efficiency strategies while engaging the Village's stakeholders about the value of water. The plan incorporates; water use baseline metrics, reduction goals, recommended strategies to achieve each goal, and is scheduled to be released before the end of 2012.

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water, here are a few tips:

- Replace old fixtures with WaterSense high efficiency models that use 20% less water (toilets, faucets, showerheads)
- Reduce outdoor water use — 1/3 of the average household water use is outdoors, behavior changes and transition to native plantings and alternative watering methods can create substantial savings — you only need to water your lawn 1 inch in a week
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check your meter after 15 minutes. If it moved, you have a leak. Give the Water and Sewer Division a call to help you with this one...

Our commercial consumers can join in as well!

- Replace your old pre-rinse spray valves — you will be amazed at the savings you will see
- Promote water conservation practices in hotels and restaurants, such as reusing linens for multi-night stays
- Become WaterSense Irrigation partners

