

2014 Water Quality Report

Dear Lincoln Park Water Customer:

As mandated by the United States Environmental Protection Agency, and prompted by the passage of the 1996 Federal Safe Drinking Water Act, we are very pleased to present our customers the 2014 Water Quality Report for the City of Lincoln Park. We have developed this report in order to provide our customers with valuable information regarding the quality of your drinking water. We are pleased to inform you that we have either met or exceeded all federal and state standards for drinking water during the year 2014.

The Lincoln Park Water and Sewer Department is a division of the Department of Public Services. The responsibility for the water distribution lies with John Kozuh, Director of Public Services, Ronald Rail, Field Supervisor, and Julie Ciochon, Clerk for Public Services. Currently the City has 3 full-time employees dedicated to the water & sewer field operations. The Water Office, which is located in City Hall at Southfield Road and Fort Park Street, handles all billing matters.

The Department of Public Services strives to deliver the highest quality of drinking water to our residents while minimizing any disruption in service. If you have any questions concerning this report or any other water related items, please feel free to contact the Department of Public Services at 313-386-9000.

Lincoln Park Water Sources

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination. However, all four Detroit water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards. DWSD has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. DWSD participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. If you would like to know more information about this report or a complete copy of this report please contact your water department at (313) 386-9000.

The City of Lincoln Park receives water from the City of Detroit Water and Sewerage Department (DWSD). The water is treated at the DWSD Springwells and Southwest Water Treatment Plants (WTP). Springwells WTP is located in the City of Dearborn and the Southwest WTP is located in Allen Park. The intake for the Springwells WTP is in Belle Isle and the intake for the Southwest WTP is on the Detroit River at the Fighting Island Intake facility.

What Is In The Water?

"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 Environmental Protection Agency's Safe Water Hotline at (800-426-4791).

The sources of drinking water (both tap 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 runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also be 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 tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health"

Health Information

"Some people may be more vulnerable to contaminants in drinking water than is 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).

Lead

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. The City of Lincoln Park is responsible for providing high quality drinking water, but 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 <http://www.epa.gov/safewater/lead>.

About The Following Table... The following table provides detailed water quality analyses for the year 2014. Included in the analyses is contaminant testing on water from the Southwest and Springwell Treatment Plants, which supplies water to The City of Lincoln Park. Included are the results of the testing along with the allowable levels and any violations. Sources of contaminants in drinking water are also listed.

KEY TO THE DETECTED CONTAMINANTS TABLE

| Symbol | Abbreviation | Definition/Explanation |
|---------------|--|---|
| > | Greater than | |
| AL | Action Level | The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| HAA5 | Haloacetic Acids | HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total. |
| LRAA | Locational Running Annual Average | |
| 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. |
| mg/L | Milligrams per liter | A milligram = 1/1000 gram 1 milligrams per liter is equal to 1 ppm |
| 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. MRLDG's do not reflect the benefits of the use of disinfectants to control microbial contaminants. |
| n/a | Not Applicable | |
| NTU | Nephelometric Turbidity Units | Measures the cloudiness of water. |
| pCi/L | Picocuries Per Liter | A measure of radioactivity. Picocurie (pCi) means the quantity of radioactive material producing 2.22 nuclear transformations per minute. |
| ppb | Parts Per Billion (one in one billion) | The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram. |
| ppm | Parts Per Million (one in one million) | The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram. |
| RAA | Running Annual Average | |
| TT | Treatment Technique | A required process intended to reduce the level of a contaminant in drinking water. |
| TTHM | Total Trihalomethanes | Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total. |

Springwells Water Treatment Plant 2014 Regulated Detected Contaminants Tables

| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
|--|-----------|------|----------------------|-----------------------|------------------------|--------------------|------------------|---|
| Inorganic Chemicals – Monitoring at Plant Finished Water Tap | | | | | | | | |
| Fluoride | 5/13/14 | ppm | 4 | 4 | 0.61 | n/a | no | Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate | 5/13/14 | ppm | 10 | 10 | 0.39 | n/a | no | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Volatile Organic Contaminants – Monitoring at Plant Finished Water Tap | | | | | | | | |
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
| Xylene | 11/12/13 | ppm | 10 | 10 | 0.0009 | n/a | no | Discharge from petroleum factories; Discharge from chemical factories |
| Disinfection By-Products – Monitoring in Distribution System Stage 2 Disinfection By-Products | | | | | | | | |
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest LRAA | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
| Total Trihalomethanes (TTHM) | 2014 | ppb | n/a | 80 | 32.4 | 10.0-59.0 | no | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) | 2014 | ppb | n/a | 60 | 6.27 | 2.2-14.0 | no | By-product of drinking water disinfection |
| Disinfectant Residuals – Monitoring in Distribution System | | | | | | | | |
| Regulated Contaminant | Test Date | Unit | Health Goal MRDLG | Allowed Level MRDL | Highest RAA | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
| Total Chlorine Residual | 2014 | ppm | 4 | 4 | 0.70 | 0.64-0.74 | no | Water additive used to control microbes |

2014 Turbidity – Monitored every 4 hours at Plant Finished Water Tap

| Highest Single Measurement Cannot exceed 1 NTU | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | Violation yes/no | Major Sources in Drinking Water |
|--|--|------------------|---------------------------------|
| 0.24 NTU | 100 % | no | Soil Runoff |

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

2014 Microbiological Contaminants – Monthly Monitoring in Distribution System

| Regulated Contaminant | MCLG | MCL | Highest Number Detected | Violation yes/no | Major Sources in Drinking Water |
|-------------------------|------|--|-------------------------|------------------|---------------------------------------|
| Total Coliform Bacteria | 0 | Presence of Coliform bacteria > 5% of monthly samples | 0 | no | Naturally present in the environment. |
| <i>E.coli</i> Bacteria | 0 | A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive. | 0 | no | Human waste and animal fecal waste. |

2014 Lead and Copper Monitoring at Customers' Tap

| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Action Level AL | 90 th Percentile Value* | Number of Samples over AL | Violation yes/no | Major Sources in Drinking Water |
|-----------------------|-----------|------|---------------------|--------------------|------------------------------------|---------------------------|------------------|--|
| Lead | 2014 | ppb | 0 | 15 | 0.6 ppb | 0 | no | Corrosion of household plumbing system; Erosion of natural deposits. |
| Copper | 2014 | ppm | 1.3 | 1.3 | 0.0658 | 0 | no | Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives. |

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

| Regulated Contaminant | Treatment Technique | Typical Source of Contaminant |
|----------------------------|--|-------------------------------|
| Total Organic Carbon (ppm) | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no TOC removal requirement. | Erosion of natural deposits |

2014 Special Monitoring

| Contaminant | MCLG | MCL | Level Detected | Source of Contamination |
|--------------|------|-----|----------------|-----------------------------|
| Sodium (ppm) | n/a | n/a | 5.15 | Erosion of natural deposits |

Collection and sampling result information in the table provided by Detroit Water and Sewerage Department (DWSD) Water Quality, ML Semegen

**Southwest Water Treatment Plant
2014 Regulated Detected Contaminants Tables**

| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
|---|-----------|------|---------------------|----------------------|------------------------|--------------------|------------------|---|
| Inorganic Chemicals – Monitoring at Plant Finished Water Tap | | | | | | | | |
| Fluoride | 5/13/2014 | ppm | 4 | 4 | 0.56 | n/a | no | Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate | 5/13/2014 | ppm | 10 | 10 | 0.29 | n/a | no | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

| Disinfection By-Products – Monitoring in Distribution System Stage 2 Disinfection By-Products | | | | | | | | |
|--|-----------|------|---------------------|----------------------|--------------|--------------------|------------------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Highest LRAA | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
| Total Trihalomethanes (TTHM) | 2014 | ppb | n/a | 80 | 32.4 | 10.0-59.0 | no | By-product of drinking water chlorination. |
| Haloacetic Acids (HAA5) | 2014 | ppb | n/a | 60 | 6.27 | 2.2-14.0 | no | By-product of drinking water disinfection. |

| Disinfection – Monitoring in Distribution System | | | | | | | | |
|---|-----------|------|----------------------|-----------------------|-------------|--------------------|------------------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MRDGL | Allowed Level MRDL | Highest RAA | Range of Detection | Violation yes/no | Major Sources in Drinking Water |
| Total Chlorine Residual | 2014 | ppm | 4 | 4 | 0.64 | 0.52-0.73 | no | Water additive used to control microbes. |

| 2014 Turbidity – Monitored every 4 hours at Plant Finished Water Tap | | | |
|---|--|------------------|---------------------------------|
| Highest Single Measurement Cannot exceed 1 NTU | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | Violation yes/no | Major Sources in Drinking Water |
| 0.14 NTU | 100% | no | Soil Runoff |

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

| 2014 Microbiological Contaminants – Monthly Monitoring in Distribution System | | | | | |
|--|------|--|-------------------------|------------------|---------------------------------------|
| Regulated Contaminant | MCLG | MCL | Highest Number Detected | Violation yes/no | Major Sources in Drinking Water |
| Total Coliform Bacteria | 0 | Presence of Coliform bacteria > 5% of monthly samples | 0 | no | Naturally present in the environment. |
| <i>E. coli</i> Bacteria | 0 | A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive. | 0 | no | Human waste and animal fecal waste. |

| 2014 Lead and Copper Monitoring at Customers' Tap | | | | | | | | |
|--|-----------|------|---------------------|--------------------|------------------------------------|---------------------------|------------------|--|
| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Action Level AL | 90 th Percentile Value* | Number of Samples Over AL | Violation yes/no | Major Sources in Drinking Water |
| Lead | 2014 | ppb | 0 | 15 | 0.6 | 0 | no | Corrosion of household plumbing system; Erosion of natural deposits. |
| Copper | 2014 | ppm | 1.3 | 1.3 | 0.0658 | 0 | no | Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives. |

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

| Regulated Contaminant | Treatment Technique | Typical Source of Contaminant |
|----------------------------|--|-------------------------------|
| Total Organic Carbon (ppm) | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no requirement for TOC removal. | Erosion of natural deposits |

| Regulated Contaminant | Test Date | Unit | Health Goal MCLG | Allowed Level MCL | Level Detected | Violation yes/no | Major Sources in Drinking Water |
|---------------------------------------|-----------|-------|---------------------|----------------------|------------------|---------------------|---------------------------------|
| Combined Radium Radium 226 and 228 | 5/13/2014 | pCi/L | 0 | 5 | 0.65 + or - 0.54 | no | Erosion of natural deposits |

2014 Special Monitoring

| Contaminant | MCLG | MCL | Level Detected | Source of Contamination |
|--------------|------|-----|----------------|-----------------------------|
| Sodium (ppm) | n/a | n/a | 5.41 | Erosion of natural deposits |

Collection and sampling result information in the table provided by Detroit Water and Sewerage Department (DWSD) Water Quality Division, ML Semegen.