

# 2004 WATER QUALITY REPORT FOR THE CITY OF LINCOLN PARK



Dear Lincoln Park Water Customer

As mandated by the United States Environmental Protection Agency, The City of Lincoln Park is very pleased to present to our customers the City's **2004 Water Quality Report**. We have developed this report, to provide our customers with valuable information regarding their drinking water quality. As you review the information presented in this report, be assured that the City is committed to meeting all government standards set for water quality and safety.

The Department of Public Services and Engineering strives to deliver the highest quality drinking water to our customers. In partnership with our supplier, the City of Detroit, our staff will continue to provide safe and high quality drinking water well into the future. This report meets all federal regulations under the Safe Drinking Water Act, requiring water utilities to provide detailed water quality information to its customers. In order to ensure that your tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. DWSD treats your drinking water in accordance with EPA and Michigan Department of Environmental Quality regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. If you have any questions regarding the information presented here, you may direct them to the City of Lincoln Park, Department of Public Services and Engineering at (313) 386-1800, Ext 297.

## What is the Source of My Drinking Water?

### Detroit River Intakes

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 to determine the susceptibility of potential contamination. The susceptibility rating is on a six-tiered scale from very low to 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 Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

If you would like to know more about this report please visit the Detroit Water and Sewerage Department's website at [www.dwsd.org](http://www.dwsd.org) or contact Mary Lynn Semegen, (313) 935-7106, [semegen@dwsd.org](mailto:semegen@dwsd.org).

The City of Lincoln Park receives water from the City of Detroit, Water and Sewerage Department, which provides drinking water to approximately 4.2 million in 126 southeastern Michigan communities. The water delivered to the City of Lincoln Park is treated at the DWSD Springwells, and Southwest Water Treatment Plants (WTP). The Springwells WTP is located in Dearborn, Michigan while the Southwest WTP is located in Allen Park, Michigan. The intake for the Springwells WTP is on Belle Isle whereas the intake for the Southwest WTP is from the Detroit River at the Fighting Island Intake Facility. Once treated, the water is pumped through water mains and enters the City in two locations, Southfield Road at Riopelle and Fort Street at Outer Drive.

## Substances Found in Source Water

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 water 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 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.

## People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 and Center for Disease Control 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**.

## Important Information about Lead

### Health Effects:

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may take the following precautions:

- Have your water tested
- Run your tap water 30 seconds to 2 minutes or until it feels colder and anytime your water has not been used for more than 6 hours
- Always use cold water for drinking, cooking, or making baby formula,
- Use faucets and plumbing materials that are either lead free or will not leach unsafe levels of lead into your water.

Additional information is available from the **Safe Drinking Water Hotline at (800) 426-4791**

## Key to Detected Contaminants Tables

Symbol	Abbreviation for	Definition/Explanation
<b>MCLG</b>	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
<b>MCL</b>	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.
<b>MRDLG</b>	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.
<b>MRDL</b>	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.
<b>ppb</b>	Parts per billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
<b>ppm</b>	Parts per million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
<b>NTU</b>	Nephelometric Turbidity Units	Measures the cloudiness of water.
<b>TT</b>	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
<b>AL</b>	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
<b>n/a</b>	Not applicable	
<b>≥</b>	More than or equal to	

## Southwest Water Treatment Plant 2004 Regulated Detected Contaminants Tables

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
<b>Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap</b>								
Fluoride	8/17/2004	ppm	4	4	0.9	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System</b>								
Total Trihalomethanes (TTHM)	Feb-Nov 2004	ppb	n/a	80	22.7	9.4-38.2	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Nov 2004	ppb	n/a	60	16.7	4.7-37.4	No	By-product of drinking water disinfection
Disinfectant (chlorine) Residual (ppm)	Jan-Dec 2004	ppm	MRDGL 4	MRDL 4	0.67	0.55-0.79	No	Water additive used to control microbes

<b>2004 Turbidity – Monitored every 4 hours at Plant Finished Water Tap</b>			
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
0.23 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.			

<b>2004 Microbiological Contaminants – Monthly Monitoring in Distribution System</b>					
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	1 in one month	No	Naturally present in the environment.
<i>E.coli</i> or fecal coliform 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 entire year	No	Human waste and animal fecal waste.

<b>Lead and Copper Monitoring at Customers' Tap</b>								
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90 <sup>th</sup> Percentile Value*	Number of Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2002	ppb	0	15	1.0	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2002	ppm	1.3	1.3	281	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	Running annual average	Monthly Ratio Range	Violation Yes/No	Typical Source of Conataminant
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 month and because the level was low, there is no requirement for TOC removal.				Erosion of natural deposits

### 2004 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	5	Erosion of natural deposits

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

## Springwells Water Treatment Plant 2004 Regulated Detected Contaminants Tables

Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
<b>Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap</b>								
Fluoride	8/17/2004	ppm	4	4	1.0	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System</b>								
Total Trihalomethanes (TTHM)	Feb-Nov 2004	ppb	n/a	80	24.6	10.2-48.5	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Nov 2004	ppb	n/a	60	19.2	5.3-40.1	No	By-product of drinking water disinfection
Disinfectant (chlorine) Residual (ppm)	Jan-Dec 2004	ppm	MRDGL 4	MRDL 4	0.71	0.62-0.75	No	Water additive used to control microbes

<b>2004 Turbidity – Monitored every 4 hours at Plant Finished Water Tap</b>			
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
0.20 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.			

<b>2004 Microbiological Contaminants – Monthly Monitoring in Distribution System</b>					
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	1 in one month	No	Naturally present in the environment.
<i>E. coli</i> or fecal coliform 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 entire year	No	Human waste and animal fecal waste.

<b>Lead and Copper Monitoring at Customers' Tap</b>								
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90 <sup>th</sup> Percentile Value*	Number of Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2002	ppb	0	15	1.0	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2002	ppm	1.3	1.3	281	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.								

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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 month and because the level was low, there is no requirement for TOC removal.				Erosion of natural deposits

### 2004 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	5	Erosion of natural deposits

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

**City of Detroit Public Water System**  
*Regulated Contaminants that Required Monitoring but were Not Detected*

**Synthetic Organic Contaminants Including Pesticides and Herbicide  
(Test Date 2002 and 2003)**

2,4,5-TP (silvex)	Glyphosate
2,4-D	Hepatchlor epoxide
Alachlor	Heptachlor
Atrazine	Hexachlorobenzene
Carbofuran	Hexachlorocyclopentadiene
Chlordane	Lindane
Dalapon	Methoxychlor
Dibromochloropropane	Oxamyl (Vydate)
Dinoseb	PCBs (polychlorinated biphenyls)
Diquat	Pentachlorophenol
Endothall	Picloram
Endrin	Simazine
Ethylene Dibromide	Toxaphene

**Volatile Organic Contaminants (Test Date 2003-2004)**

1,1,1-Trichloroethane	o-Dichlorobenzene
1,1,2-Trichloroethane	p-Dichlorobenzene
1,1-Dichloroethylene	ethyl benzene
1,2,4-Trichlorobenzene	Methylene Chloride
1,2-Dichloroethane	Styrene
1,2-Dichloropropane	Tetrachloroethylene
1,2 dibromoethane	Toluene
1,2,dibromo 3 chloropropane	trans-1,2-Dichloroethylene
Benzene	Trichloroethylene
Carbon Tetrachloride	Vinyl Chloride
Chlorobenzene	Total
Dichloromethane	xylene

**Inorganic Contaminants (Test Date 1999)**

Antimony  
Barium  
Beryllium  
Cadmium  
Chromium  
Mercury (inorganic)  
Nickel  
Nitrite (as nitrogen)  
Selenium  
Thallium

**Inorganic Contaminants (Test Date 2004)**

Arsenic

**Radioactive Contaminants (Test Date 2001)**

Beta/photon Emitters  
Alpha Emitters

# City of Detroit Public Water System 2004

## *Unregulated Contaminants that were Monitored and Not Detected*

\*Current regulations do not require monitoring for these contaminants however they are included in our routine monitoring program (Test dates 2003-2004)

### **Chemical**

Dichlorobutane, 1-4  
Fluorotrichloromethane  
Hexachloroethane  
Methyl Ethyl Ketone  
Methyl Isobutyl Ketone  
Methyl Tert-Butyl Ether (MTBE)  
Monobromoacetic Acid  
Tetrahydrofuran  
2,4,5,-T  
Acifluorfen  
Ametryn  
Bentazon  
Bromacil  
Butylate  
Carboxin  
Chlorothalonil  
Cyanazine  
Cycloate  
Cyprazine  
Dacthal  
DDD, 4,4` -  
DDE, 4,4` -  
DDT,4,4` -  
Diphenamid  
Endosulfan, alpha  
Endosulfan, beta  
Endrin Aldehyde  
Eptam  
Hexachlorocyclohexane  
Hexachlorocyclohexane (Beta-BHC)  
Hexazinone  
Methiocarb  
Octachlorocyclopentene  
Polybrominated Biphenyls (PBB)  
Prometon  
Pronamide  
Propazine  
Propoxur (Baygon)  
Tebuthiuron  
Terbacil  
Trifluralin



**CITY OF LINCOLN PARK**  
**Water Department**  
**500 Southfield Road**  
**Lincoln Park, MI 48146**

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FOR FURTHER INFORMATION, PLEASE CALL 313-386-1800, Ext. 297