



City of Dearborn Heights
Department of Public Services
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2015 Water Quality Report

What is this Report About?

The following report was prompted by the passage of the 1996 Federal Safe Drinking Water Act Amendments. The amendments require that each community perform an annual report to be distributed to each water customer within the community. The purpose of this report is two-fold. First, it is to inform all water customers of the City of Dearborn Heights about the quality of our drinking water, and second, to share with our customers' information on the Dearborn Heights water system.

Dearborn Heights Water System

The Dearborn Heights Water Department provides water to approximately 59,000 residents, 21,100 homes, and over 1,200 businesses, schools, churches, and apartments. Dearborn Heights' water is supplied by the City of Detroit Water Department from its Springwells and Southwest Water Treatment Plants. 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 (DWSD), 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 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 Elimination System permit discharge program and has an emergency response management plan. In 2015, DWSD received a grant from the Michigan Department of Environmental Quality to develop a source water protection program for the Detroit River intakes. The programs includes seven elements that include the following: roles and duties

of governmental units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation. If you would like to know more information about the Source Water Assessment Report or a complete copy of this report please visit the Detroit Water and Sewerage Department's website at www.dwsd.org or contact Dearborn Heights Water Department.

Is our Water Safe to Drink? Yes!

The City of Dearborn Heights is proud to announce to our water customers that we met or exceeded all federal and state standards for drinking water during 2015, when the enclosed data was compiled. This report will be presented annually in the spring-summer edition of the Dearborn Heights Today newsletter.

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 Drinking Water Hotline (800 426-4791).

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 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 stormwater 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.

In order to ensure that tap water is safe to drink, Environmental Protection Agency (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.

Other 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/Centers for Disease Control (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).

Infants and young 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 wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800 426-4791).

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

2015 Regulated Detected Contaminants Table

Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	5/11/2015	ppm	4	4	0.54	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Southwest Plant	5/11/2015	ppm	4	4	0.45	n/a	No	
Nitrate	5/11/2015	ppm	10	10	0.43	n/a	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Southwest Plant	5/11/2015	ppm	10	10	0.33	n/a	No	
Disinfection By-Products – Monitoring in Distribution System Stage 2 Disinfection By-Products								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest Level LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2015	ppb	n/a	80	33.1	10.0 – 55.1	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2015	ppb	n/a	60	13.0	5.0 – 22.0	No	By-product of drinking water disinfection
Disinfectant Residuals – Monitoring in Distribution System								
Regulated Contaminant	Test Date	Units	Health Goal MRDGL	Allowed Level MRDL	Highest RRA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Southwest Plant Total Chlorine Residual	Jan.-Dec. 2015	ppm	4	4	0.74	0.66 -0.79	No	Water additive used to control microbes
Springwells Plant Total Chlorine Residual	Jan.-Dec. 2015	ppm	4	4	0.67	0.56-0.79	No	Water additive used to control microbes

2015 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	
0.18 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.								
2015 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	Units	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	0.0	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2014	ppb	1300	1300	84	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.								

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. Dearborn Heights water department 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

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 month 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

2015 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm) Southwest Plant Springwells Plant	n/a n/a	n/a n/a	5.41 4.74	Erosion of natural deposits

Key to Regulated Detected Contaminants Tables

Symbol	Abbreviation for	Definition/Explanation
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
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.
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.
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.
mg/L	Milligrams per liter	A milligram = 1/1000 gram 1 milligram per liter is equal to 1
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.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
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.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on total.
umhos	Micromhos	Measure of electrical conductance of water
C	Celsius	A scale of temperature in which water freezes at 0 degrees and boils at 100 degrees under standard conditions.
LRAA	Locational Running Annual Average	
RAA	Running Annual Average	
>	Greater than	
ND	Not Detected	
n/a	not applicable	

Monitoring and Reporting Requirements

The State and EPA requires us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2015. We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at the City of Dearborn Heights official web page: www.ci.dearborn-heights.mi.us

We invite public participation in decisions that affect drinking water quality. Comments can be received at the regularly scheduled City Council meetings on the second and fourth Tuesdays of each month, or contact the Department of Public Works at 313-791-6000. For more information about safe drinking water, visit the U.S Environmental Protection Agency at: www.epa.gov/safewater