

City of
WAYNE



2008 Water Quality Report

Introduction

In compliance with the Federal Safe Drinking Water Act Amendments, the City of Wayne is providing its customers with the 2008 annual report on water quality. This report explains where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and State standards. We are committed to providing you with a safe and dependable supply of drinking water.

Safe Drinking Water Act

Under the Safe Drinking Water Act (SDWA), the United States Environmental Protection Agency (USEPA) is responsible for setting national limits for hundreds of substances in drinking water and also specifies various treatments that water systems must use to remove these substances. Similarly, Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Each agency continually monitors these substances and reports directly to the USEPA if they are detected in the drinking water. USEPA uses this data to ensure consumers are receiving clean water and verify that states are enforcing the laws that regulate drinking water.

Water Source

The City of Wayne is supplied by the Detroit Water and Sewerage Department (DWSD) and is serviced by the Springwells and Southwest treatment plants. The DWSD provides drinking water to approximately 4.2 million people in 126 southeastern Michigan communities. The water supply for the Springwells treatment plant is from Belle Isle intakes which are located in the Detroit River on the east end of the island. The water supply for the Southwest treatment plant is from intakes which are located in the Detroit River east of the international boundary line between Canada and the United States near Fighting Island.

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 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 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 the City of Wayne DPW at 9734) 721-8600.

What Substances May Be In Drinking 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 Drinking Water Hotline at (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from the Detroit River. 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 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 organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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, 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."

People With Special Health Concerns

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

Since 1992, with the cooperation of many Wayne residents, the City has been testing homes with plumbing systems that may contribute lead to the household water supply. Our latest round of testing shows that all of the homes tested had lead levels below the action level.

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 Wayne 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>.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Cryptosporidium was detected once, during a twelve-month period at our Detroit River intake plants. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor 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.

How Will I Know If There Is A Problem With My Water?

If the amount of a contaminant exceeds a predetermined safe level in your drinking water the City of Wayne will notify you via newspapers, radio, TV and other means within 24 hours. With the notification, you will be instructed on what appropriate action you can take to protect you and your family's health.

How is the Water Treated?

The treatment plants operate 24 hours a day, seven days a week. The treatment process begins with disinfecting the source water with Chlorine to kill microorganisms that can cause illness. Next, a chemical called Alum is mixed with the water to remove the fine particles that make the water cloudy or turbid. Alum causes the particles to clump together and settle to the bottom. Fluoride is also added to protect our teeth from cavities and decay.

The water then flows through fine sand filters called beds which remove even more particles and certain microorganisms that are resistant to Chlorine. Finally, a small amount of Phosphoric Acid and Chlorine are added to the treated water just before it leaves the treatment plant. The Phosphoric Acid helps control the lead that may dissolve in water from household plumbing systems. The Chlorine keeps the water disinfected as it travels through water mains to reach your homes.

In addition to a carefully controlled and monitored treatment process, the water is tested for a variety of substances before treatment, during various stages of treatment, and throughout the distribution system. Hundred's of samples are tested each week in the DWSD's certified laboratory. The water supplied by the DWSD not only meets safety and health standards but also ranks among the top 10 in the country for quality and value.

Springwells and Southwest Water Treatment Plants

2008 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
Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap								
Fluoride	9/9/2008	ppm	4	4	1.05	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	9/9/2008	ppm	10	10	0.26	n/a	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	6/9/2008	ppm	2	2	0.01	n/a	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium	6/9/2008	ppb	50	50	1	n/a	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System								
Total Trihalomethanes (TTHM)	Feb-Nov 2008	ppb	n/a	80	19.9	4.1-31.5	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Nov 2008	ppb	n/a	60	11.4	4.4-16.5	No	By-product of drinking water disinfection
Disinfectant Chlorine	Jan-Dec 2008	ppm	MRDGL 4	MRDL 4	0.65	0.17-0.96	No	Water additive used to control microbes

2008 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
0.27 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.			

2008 Microbiological Contaminants – Monthly Monitoring in Distribution System					
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 in one month	NO	Naturally present in the environment.
E. coli or fecal coliform bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	0 in entire year	NO	Human waste and animal fecal waste.

2008 Lead and Copper Monitoring at Customers' Tap								
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	2008	ppb	0	15	6 ppb	0	NO	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2008	ppm	1.3	1.3	.051 ppm	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 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

2008 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.80	Erosion of natural deposits

Information and tables provided by Detroit Water and Sewerage Department (DWSD) ML Semegen.

On the Regulated Contaminant Tables the bold number is the "your water" value.

Unregulated Contaminants

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. Beginning in July of 2008, the Detroit Water and Sewerage Department (DWSD) began monitoring quarterly for unregulated contaminants under the Unregulated Contaminant Monitoring Rule 2 (UCMR2.) All the UCMR2 contaminants monitored on List 1 and List 2 in 2008 were undetected.

Other regulated and unregulated contaminants are monitored by DWSD but were not detected. For a complete list of these monitored contaminants, contact the City of Wayne Department of Public Works.

The Michigan Department of Environmental Quality and the U.S. Environmental Protection Agency require monitoring on a regular basis to ensure the safety of drinking water.

The City of Wayne met all monitoring and reporting requirements in 2008.

Additional Information

Data for this report was supplied by the City of Detroit Water and Sewerage Department and the Michigan Department of Environmental Quality. Water quality data for community water systems throughout the United States is available at www.waterdata.com. For more information about your drinking water, call the U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at www.epa.gov/safewater/.

This report is posted at the City's web site at www.ci.wayne.mi.us For more information about this report, or for any questions relating to your drinking water, please call Tom MacDonald, DPW Director, at (734) 721-8600.

Wayne City Council meetings are held at 8:00 P.M. on the first and third Tuesday of each month at City Hall.

Water System Customer Tips

Frozen Water Pipes

If your property is going to be vacant for an extended period of time or if buildings will not be heated during cold weather, contact the City of Wayne to make a request for the water service to be shut off to prevent damage from frozen pipes or undetected leaks.

During cold weather, make sure that water pipes are in heated areas or are properly insulated from the cold. If water pipes are located in closets or cupboards near exterior walls, leave the doors open to allow heat into the area. Pipes located along exterior walls, attics or in crawl spaces should be insulated to prevent freezing.

If your plumbing is susceptible to freezing, leave a cold water tap running slowly during very cold weather.

Water Bill Questions

For questions regarding your water bill or meter reads, contact the City of Wayne water billing clerk at (734) 722-2000.

If you are selling a home or business, please contact the City of Wayne at least 48 hours in advance to arrange for a "final read" of your water meter.

Cross Connection Program

All residences and businesses should have Hose Bib Vacuum Breakers (HBVB) at all exterior hose connections and interior slop sinks or laundry tubs.

All businesses in the City of Wayne are subject to annual cross connection inspections. Businesses must allow access for inspections and comply with requirements of the City of Wayne Cross Connection Control Program.

Report Water Leaks

To report a water main break contact the City of Wayne Department of Public Works (734) 721-8600 on Monday through Friday from 7:00 AM to 3:30 PM. After hours, weekends and holidays please contact the Wayne Police Department (734) 721-1414.

If you have a water or sewer question, contact the City of Wayne Department of Public Works during the hours listed above. For Water or Sewer Emergencies after hours or on weekends or holidays, contact the Wayne Police Department.

Key to 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.
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 the total.
n/a	Not applicable	
>	Greater than	

WRITTEN NOTICE REQUIREMENT: In compliance with Public Act 222 of 2001, an amendment to Michigan's governmental Immunity Statute 1964 PA 1970, as amended MCL 691.1419, requires that a claimant who wishes to seek compensation for property damage or physical injury resulting from a sewage disposal system event shall notify the City of Wayne, Water and Sewer Superintendent, in writing, within 45 days after the date the damage or physical injury was discovered, or in the exercise of reasonable diligence should have been discovered. The written notice shall contain the claimant's name, address and telephone number, the address of the affected property, the date of discovery of any property damages or physical injuries, and a brief description of the claim. Failure to comply with the notice requirements may prevent the recovery of damages and bar any claim that a claimant may have. Any person or claimant who experiences an overflow or backup of a sewage disposal system or storm water system that is under the jurisdiction and control of the City of Wayne should immediately contact the City of Wayne Department of Public Works at the following address and telephone number:

City of Wayne
 Department of Public Works
 35200 Forest
 Wayne, Michigan 48184 (734) 721-8600

Wayne City Council

Mayor Abdul "Al" Haidous

Mayor Pro Tem Donna M. McEachern

Councilman Thomas H. Kelly

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Councilwoman Pamela S. Dobrowolski

Councilwoman Susan M. Rowe

Councilman Mathew P. Mulholland

City Manager

John J. Zech

Assistant City Manager

Robert C. English

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