

2013 Key to the Detected Contaminant Tables		
Symbol	Abbreviation for	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.
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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
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 total.

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 your water department (734) 675-4908.

7 SIMPLE STEPS TO CLEAN WATER

1. Help keep pollution out of storm drains.

Storm drains lead to our lakes and streams. Any oil, pet waste, leaves, or dirty water from washing your car that enters a storm drain gets into our lakes and streams. With almost 5 million people living in Southeast Michigan, we all need to be aware of what goes in our storm drains. REMEMBER, ONLY RAIN IN THE DRAIN!

2. Fertilize sparingly and carefully.

Storm drains in our streets and yards empty into our lakes and streams. When we fertilize our lawn, we could also be fertilizing our lakes and streams. While fertilizer is good for our lawn, it's bad for our water. Fertilizer in our lakes and streams causes algae to grow. Algae can form large blooms and use oxygen that fish need to survive. With 1.5 million homes in Southeast Michigan, all of us need to be aware of the cumulative effects of our lawn care practices. What can you do? Simple...USE FERTILIZER LOW IN PHOSPHORUS, select a slow-release fertilizer where at least half of the nitrogen is "water insoluble" (check the ingredients on the label), keep fertilizer away from lakes, streams, and storm drains, and SWEEP EXCESS FERTILIZER back into your lawn.

3. Carefully store and dispose of household cleaner, chemicals, and oil.

Antifreeze, household cleaners, gasoline, pesticides, oil paints, solvents, and motor oil are just some of the common household products that enter our storm drains. You can help keep these out of our lakes and streams. Instead of putting these items in the trash, down the storm drain, or on the ground, TAKE THEM TO A LOCAL HAZARDOUS WASTE CENTER OR COLLECTION DAY.

4. Clean up after your pet.

Most of us pick up after our pets to be a good neighbor and keep our yard clean. But there's another important reason. Pet waste contains bacteria that are harmful to us and our water. Leaving it on the sidewalk or lawn means harmful bacteria will be transported into the storm drains and then into our lakes and streams. So what can you do to help? Simple...Whether on a walk or in your yard, DISPOSE OF YOUR PET'S WASTE PROMPTLY IN THE TOILET OR TRASH.

5. Practice good car care.

Did you know that just four quarts of oil from your car's engine, can form an eight-acre oil slick if spilled or dumped down a storm drain? There are over 4 million cars in southeast Michigan, so even small leaks matter. KEEP YOUR CAR TUNED, AND FIX LEAKS PROMPTLY. Not only will this make your car run better and last longer, it will be good for our lakes, streams, and air. When washing your car, keep the polluted water from going into the street and storm drain. CONSIDER TAKING YOUR CAR TO THE CAR WASH OR WASHING YOUR CAR ON THE GRASS. Your lawn will gladly soak up the excess water.

6. Choose earth-friendly landscaping.

When landscaping your yard you can protect your kids, pets, and the environment from harm. USE PESTICIDES SPARINGLY. Put mulch around trees and plants. Water your lawn only when it needs it (one to two times a week is usually sufficient) and CHOOSE PLANTS NATIVE TO MICHIGAN. Once established, the plants tolerate dry weather and resist disease.

7. Save water.

Did you know that individually we use about 77 gallons of water each day? When we over-water our lawns, it can easily carry pollution to the storm drains and to our lakes and streams. CONSIDER USING A BROOM INSTEAD OF A HOSE to clean sidewalks and driveways. Direct hoses and sprinklers on the lawn, not the driveway. Water when necessary instead of on a fixed schedule. Remember – SAVING WATER ALSO SAVES YOU MONEY.

City of Woodhaven
Water & Sewer Department
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CITY OF WOODHAVEN

Your Drinking Water Quality Report For 2013



The City of Woodhaven wants you to know your tap water is safe to drink and that it meets or surpasses all federal and state standards for quality and safety.



The following information is for water supplied to you during 2013. The Woodhaven Water and Sewer Department is proud to report that our system has never violated a maximum contaminant level or any other water quality standard. We meet and surpass all U.S. Environmental Protection Agency (EPA) and State of Michigan health standards.

The Woodhaven Water & Sewer Department has four full time field crew personnel who are licensed by the MDEQ under EPA requirements to safeguard your water system. They are on call around the clock for your protection.

Customers with irrigation systems are required to submit a test on their back flow preventer devices. Maintaining these devices is critical to safe guarding our drinking water. Tests are required annually or if the device malfunctions. Through permits and inspections the water quality is maintained for the community. If a customer is being detained from connecting to the water system or is issued a violation, it is because they have not met EPA, MDEQ and the City of Woodhaven standards and may pollute the community water supply. An improper connection to the water supply could unintentionally cause sickness and even death. Working together the community can help ensure that our drinking water supply is always safe.

In addition to the testing we are required to perform, Detroit voluntarily tests for hundreds of additional substances and microscopic organisms. If you are interested in knowing all the substances tested for please contact Woodhaven Water & Sewer Department at (734)675-4908.

The Detroit Water and Sewerage Department in conjunction with the City of Woodhaven Water and Sewer Department work together to deliver quality drinking water from the point of origin directly to the consumers tap. This is assured by the stringent testing protocol outlined by the MDEQ and performed by both the Detroit Water and Sewerage Department and The City of Woodhaven Water Department.

The water we deliver to our customers is safe to drink as determined by USEPA and MDEQ standards. Those who wish, because of personal preference, to install a home "treatment" device are cautioned to maintain the device. The filters are excellent breeding grounds for bacteria if left in service beyond the manufacturer's recommendation. Woodhaven's program, which tests for lead and copper, is well under the action levels of 15 ppb for lead and 1.3 ppb for copper. Our last requested testing results are included in the tables in this report.

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 Woodhaven 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>.

*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 river, 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 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 system, agricultural livestock operation, 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 organic, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic system.

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.*

*Some people may be more vulnerable to contaminants in drinking water than is in general population. Immune-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).*

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).

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

CONTAMINANT	REQUIRED SAMPLING FREQUENCY	NUMBER OF SAMPLES TAKEN	DATES SAMPLES SHOULD HAVE BEEN TAKEN
TTHM ¹	2 SAMPLES PER QUARTER	2	02/01/2013 TO 02/28/2013
HAA5 ²	2 SAMPLES PER QUARTER	2	02/01/2013 TO 02/28/2013
TTHM ¹	2 SAMPLES PER QUARTER	0	05/01/2013 TO 05/31/2013
HAA5 ²	2 SAMPLES PER QUARTER	0	05/01/2013 TO 05/31/2013
TTHM ¹	2 SAMPLES PER QUARTER	2	08/01/2013 TO 08/31/2013
HAA5 ²	2 SAMPLES PER QUARTER	2	08/01/2013 TO 08/31/2013
TTHM ¹	2 SAMPLES PER QUARTER	2	11/1/2013 TO 11/30/2013
HAA5 ²	2 SAMPLES PER QUARTER	2	11/1/2013 TO 11/30/2013

¹TTHM, also known as total trihalomethanes, are tested by collecting one sample and testing that sample for chloroform, bromodichloromethane, dibromochloromethane, and bromoform.
²HAA5, also known as haloacetic acids, are tested by collecting one sample and testing that sample for monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

The Woodhaven Water and Sewer Department participates in the Stage 2 Disinfection Byproduct Monitoring Program (DBP). This program is required by the Michigan Department of Environmental Quality. Samples are taken four times per calendar year to monitor levels of TTHM/HAA5. The City of Woodhaven collects samples in February, May, August, and November. The Woodhaven Water and Sewer Department inadvertently missed the May 2013 collection timeline. All samples prior to and after the missed collection period have met acceptable limits.

The Detroit Water and Sewerage Department in conjunction with The City of Woodhaven Water and Sewer Department work together to deliver quality drinking water from the point of its origin directly to the consumers tap. This is assured by the stringent testing protocol outlined by the MDEQ and performed by both The Detroit Water and Sewerage Department and The City of Woodhaven.

For more information, please contact Mr. Tim Neighbors at 734-675-4908 or the Department of Environmental Quality at (586)- 753-3755.

I certify that this water supply has fully complied with the public notification regulations in the Michigan Safe Drinking Water Act, 19756 PA 399, as amended, and the administrative rules.

Timothy Neighbors (Director of the Water Department)

WSSN: 7180

Monitoring requirements not met for Woodhaven

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During May, 2013, we did not monitor or test for Disinfectants and Disinfection Byproducts (DDBPs) and, therefore, cannot be sure of the quality of our drinking water during that time.

Southwest Water Treatment Plant 2013 Regulated Detected Contaminants Tables

Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Inorganic Chemicals – Monitoring at Plant Finished Water Tap								
Fluoride	5/13/2013	ppm	4	4	0.71	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	5/13/2013	ppm	10	10	0.69	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.
Disinfection By-Products – Monitoring in Distribution System Stage 2								
Regulated Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2013	ppb	n/a	80	45.0	18.4-45.0	no	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	2013	ppb	n/a	60	19	8-20	no	By-product of drinking water disinfection.
Disinfection – Monitoring in Distribution System								
Regulated Contaminant	Test Date	Units	Health Goal MRDGL	Allowed Level MRDL	Highest RAA	Range of Detection	Violation	Major Sources in Drinking Water
Disinfectant Total Chlorine Residual	2013	ppm	4	4	0.85	0.47-0.88	no	Water additive used to control microbes.

2013 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	Major Sources in Drinking Water
0.15 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.			

2013 Microbiological Contaminants – Monthly Monitoring in Distribution System					
Regulated Contaminant	MCLG	MCL	Highest Number Detected	Violation	Major Sources in Drinking Water
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	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.	entire year	no	Human waste and animal fecal waste.

2011 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	Major Sources in Drinking Water
Lead	2011	ppb	0	15	1.9	0	no	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2011	ppm	1.3	1.3	0.10	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.								

Contaminant	Treatment Technique	Running annual average	Monthly Ratio Range	Violation	Typical Source of Contaminant
Total Organic Carbon (ppm)					Erosion of natural deposits

2013 Special Monitoring				
Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	5.54	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.