



Drinking Water Quality Report

The Charter Township of Redford - Water & Sewer Department

12200 Beech Daly, Redford MI 48239

(313) 387-2670

Redford Township's Water Department is proud of the fine drinking water it provides to its consumers. It is federally mandated that we provide you with our Water Quality Report by July 1st of each year. This annual report shows our source of water, lists the results of our 2007 tests and contains important information about water and health. If at any time there is any concern about our water supply, we will immediately notify you. After viewing this report, you will see that Redford Township's water meets or exceeds established water-quality standards. In 2007 your water utility provided over 1.6 billion gallons of water to Redford Township water consumers. Of the 1.6 billion gallons, 1.2 billion gallons were used by residential customers at an average of 170 gallons per account per day.

Redford Township's Water Department continues to make great strides to investigate the integrity of our water transmission system, as well as implementing methods to be more efficient. The Water Department is committed to continuing to provide water that meets Federal and State mandates, while keeping prices for water as affordable as possible.

Public Participation

We encourage public interest and participation in our community's decisions affecting drinking water. The Redford Township Board of Trustees also serves as your Water Commission. Our regular Township Board meetings, which normally occur on the 2nd and 4th of each month, unless cancelled for a holiday or other special reason, are held at the Townhall, 15145 Beech Daly, Redford, MI. The public is always welcome to attend. Feel free to call the Redford Township Clerk's office at (313) 387-2750 if more specific meeting times and dates are needed. This report will also be posted on our website at www.redfordtwp.com and additional copies are available at Townhall or the Public Services Building. If you would like to view water quality data for other communities throughout the country, it's available at www.waterdata.com.

Where does Redford Township's drinking water come from?

The Redford Township Water Department is supplied water by the City of Detroit from its Springwells Water Treatment Plant in Dearborn. The water comes from an intake near Belle Isle by the convergence of the mouth of the Detroit River and Lake St. Clair.



Good news! Our water is clean, safe and fun !

Detroit River Intakes Source Water Assessment

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 & 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 seven-tiered scale from moderately 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.

If you would like to know more about this report or need a complete copy of this report please contact your Water Department (313) 387-2670 or visit the Detroit Water & Sewerage Department's website at www.dwsd.org.

What's Inside

Public participation	1	Monitoring & reporting requirements	4
Who supplies our water	1	Sewer backup information	4
Definitions and terms	2	Storm water information	5
Key to detected contaminant tables	2	Tips for saving money on your water bill	5
Treatment plant test results	3	Frequently asked questions	6
Lead and copper results	3	Did you know	6
Health & safety information	4		
Information about lead	4		

An Explanation of the Water Quality Data Table: The tables show the results of our water quality analyses. Every regulated contaminant that we detected in the water, even the most minute trace, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings and a key to units of measurement. Definitions of MCL and MCLG are important.

Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions. The data presented in this report is from the most recent testing done in accordance with regulations. No variances requested.

Explanation of Violations: (NO VIOLATIONS) Although we ran many tests, only the listed substances were found. They are all below the MCL required. The Detroit Water & Sewerage Department provides Redford Township with its water. They tested for and did not detect Cryptosporidium in the source waters. The City of Detroit did not test this water for Radon.

National Primary Drinking Water Regulation Compliance: This report was prepared by the Redford Township Water & Sewer Department using data supplied by our water provider, the City of Detroit Water & Sewerage Department, and the Michigan Department of Environmental Quality. This report has been provided to you to ensure compliance with the Michigan Safe Drinking Water Act (1976 PA 399, as amended) by 1998 PA 56. This Act was passed to ensure compliance with the Federal Clean Water Act and the rules promulgated by the United States EPA dealing with this law. Some of the specific language within this report is required and, as such, cannot be altered. If we can be of any assistance in explaining anything within this report, please feel free to call us at (313) 387-2670. We hope you find this report useful. Look for future reports to come by July 1st of each year.

Key to Detected Contaminants Tables		
In the following tables you will find many terms and abbreviations that might be unfamiliar to you. To help you better understand these terms we've provided the following definitions.		
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	

Springwells Water Treatment Plant 2007 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	8/8/2007	ppm	4	4	0.920	n/a	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	8/8/2007	ppm	10	10	0.21	n/a	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System								
Total Trihalomethanes (TTHM)	Feb-Nov 2007	ppb	n/a	80	20.4	7.5-43.4	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	Feb-Nov 2007	ppb	n/a	60	12.9	4.9-19.0	No	By-product of drinking water disinfection
Disinfectant Chlorine	Jan-Dec 2007	ppm	MRDGL 4	MRDL 4	0.67	0.61-0.72	No	Water additive used to control microbes

2007 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
0.21 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.			

2007 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	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	No	Human waste and animal fecal waste.

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

2007 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.65	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.

Redford Township's 2005 Lead and Copper Monitoring at Customers' Tap (next scheduled monitoring will be in 2008)								
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	2005	ppb	0	15	0	1	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2005	ppb	1300	1300	198 ppb	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.								

Health & Safety Information

The following information is mandatory language provided by the Environmental Protection Agency regarding contaminants reasonably expected to be found 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. 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.

In order to ensure that tap water is safe to drink, the 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.

Warning about the vulnerability of some populations to contaminants in drinking water



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).

Health Information About 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. Redford Township 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 at (800) 426-4791 or on the internet at <http://www.epa.gov/safewater/lead>.

Monitoring & Reporting Requirements

The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2007. We will update this report annually and will keep you informed of any problems that may occur throughout the year as they happen. Additional copies of this report are available at Townhall at 15145 Beech Daly and at the Department of Public Services Building at 12200 Beech Daly. You will also find this report on our website at www.redfordtwp.com.

For more information about your water, or the contents of this report, contact the Redford Township Water & Sewer Department at (313) 387-2670 or contact us online at the Township website. Additional information about safe drinking water can be found by visiting the U.S. Environmental Protection Agency at www.epa.gov/safewater.

Important Notice About Sewer Backups

In compliance with Public Act 222, be advised of the following. Any resident experiencing an overflow or backup of a sewage disposal system or storm water system should immediately upon discovery, or in the exercise of reasonable diligence should have discovered, contact the Water Department at (313) 387-2670. If it is after normal business hours, contact the Redford Township Police Department at (313) 387-2553 and they will contact the Water Department foreman.

You should also file a written claim with the Redford Township Water Department at 12200 Beech Daly, Redford, MI 48239, within 45 days of discovery of the overflow or backup. Failure to provide the required notice will limit your rights under the law. A claim form is available by calling the Water Department at (313) 387-2670. **PLEASE NOTE: In order for a claim to be viable, the source of the problem must be the Municipal sewer. Problems caused by your property's plumbing or in your sewer lead are your responsibility.**

Storm Water Information

Did you know that more than one-third of the pollution in the Rouge River and its tributaries comes from storm water runoff? As rainwater flows over land it picks up a variety of pollutants, including eroded soil, trash, fertilizers and pesticides. Automobile fluids, including motor oil, antifreeze, gasoline and brake fluid, contain trace metals and poisons that often leak from vehicles onto streets and parking lots. These pollutants may make their way into storm sewers and ultimately into our Rouge River.

Redford Township is entirely located within the Rouge River Watershed, and all creeks and streams within the community flow into the Rouge River. Redford Township is committed to protecting water quality and is working with other communities in the Watershed to develop proactive methods of controlling water pollution.



The Rouge River Watershed, in which Redford Township is located, was once considered one of the most polluted rivers in the Nation. However, great strides have been made in cleaning up the Rouge at a cost of many millions of dollars. Despite advances in technology, environmental clean-up costs continue to increase every year. Redford Township has already spent well over \$20 million with many more millions to be spent.

Preventing pollution is much easier and less costly to implement than trying to correct environmental damage after it has occurred. However, much can still be done with a little preventative care on everyone's part. Educational materials are available to residents and business owners on the Township's website at www.redfordtwp.com or in the lobbies of Townhall, the Public Services Building and the Community Center relating to Using Pesticides & Controlling Garden Pests; Pet Care & Animal Waste Disposal; Natural Mulches & Compost; Landscaping Near the Water's Edge; Using Fertilizers & Maintaining Healthy Lawns, Shrubs & Trees; Maintaining Septic Systems; Our Actions Affect the Rouge River; and Catch Basin Care. Additional information is also available from the Friends of the Rouge at www.therouge.org or by calling them at (313) 792-9900.

Helpful Tips for Saving Money on Your Water Bill

Dripping faucets costs money. . . don't waste it!

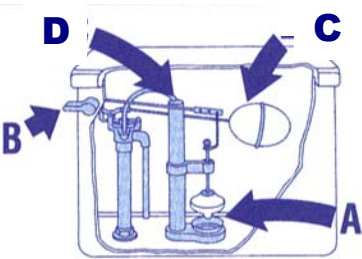
A dripping faucet or fixture can waste 3 gallons of water a day - a total of 1095 gallons a year. A continuous leak from a hole would waste water amounts shown at the right. Currently Redford's water is billed to its consumers at a total fee of \$5.33 per unit, which includes water, sewer, CSO fees, etc. (1 unit = 748 gallons) In addition, if you lower your water consumption you will also be lowering the sewer charge on your water bill. (Note: Redford's water rate changes on July 1st of every year.)



Waste per quarter at 60 psi water pressure

	Waste per quarter at 60 psi water pressure				
●	1/4"	1,181,500 gallons	158,000 cubic feet		
●	1/8"	666,000 gallons	89,031 cubic feet		
●	1/16"	296,000 gallons	39,400 cubic feet		
●	1/32"	64,000 gallons	9,850 cubic feet		

Toilet leaks, undetectable to the naked eye or the human ear, can add \$25 or more to your monthly bill.



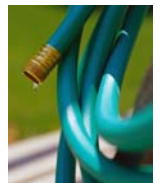
This type of leak tends to get larger and cost you more the longer you wait. You can test your toilet by simply removing the cover to your tank and adding a few drops of food coloring or a dye tablet to the water. Do not flush the tank. Leave the dye in the tank for several hours (overnight if possible). If the dye appears in the toilet bowl, you have a leak! In most cases, the leak is caused by the flapper in the tank not sealing properly (A).

Other causes of the leak may be the flushing handle is stuck or the flushing arm and lift chain in the tank are not working properly (B); the float rod, ballcock and or float ball are corroded (C); or the water level in the tank is too high and spills into the overflow

tube (D). Replacement parts are available at local hardware and plumbing supply stores or consult a local plumbing professional.

Outdoor water usage, when done smartly, will help control water rates for everyone in our Community.

The amount of money Redford Township has to pay for water from the Detroit Water & Sewerage Department is partially based on how much water is used during our peak hours. Any increase in our cost is then passed on to our consumers. Peak demand during the spring and summer are usually 5 am to 9 am and again from 5 pm into the evening. By watering your lawn, garden and flowers at times when there is less demand (between 9 am and 5 pm) you will help keep our rates down. Remember to check hoses and outdoor faucets for leaks. Even a small leak in a garden hose may waste as much as 700 gallons per day.



Frequently Asked Questions

What causes water to sometimes appear discolored or rusty? In some cases, rusty or dirty water may come from the distribution system as a result of a water main break or fire hydrant use. It may take several hours for stirred up sediments to settle. In the event of a main break or disturbance, it is best to wait until the problem is fixed before running your water. Then you should periodically run a cold water faucet for 3-5 minutes at the lowest point in your house (usually the basement) until the water runs clear. If it is still rusty or dirty, wait 1-2 hours and then try again. Do not run your hot water, as this will draw the discolored water into your hot water tank and may discolor clothing if you are using your washer. Another cause of discolored water could be from rusting in galvanized pipes in home plumbing systems. **Also, remember that every year, during the months of September thru November, Redford Township conducts its hydrant flushing program.** This may cause rusty or dirty water for those in the areas being flushed.

My drinking water often looks cloudy when first taken from a faucet and then it clears up. Why is that? Cloudy water is caused by tiny air bubbles in the water similar to the gas bubbles in beer and carbonated soft drinks. If you let it sit for a while, the bubbles will rise to the top and dissipate. Cloudy water occurs most often in the fall and winter months when the water is colder.

Why is the sewage charge on by bill higher than the previous bill? The charge for sewage disposal is based on the number of units of water you are billed for. This amount will vary on each bill if your water usage also varies. If you lower your water consumption, you will also lower your sewage disposal charge. Especially during summer months, when your water usage is higher, you will see higher charges for sewage disposal.

Whose sewer is it? The Water & Sewer Department cleans and maintains main line sanitary sewers that are generally located within the public right-of-ways. The sanitary sewer lateral line that runs from your home or building to the Township's main line is installed and maintained in its entirety by the property owner per Township ordinance.

Who do I call to clean my sanitary sewer lead? We recommend that you call three drain cleaner specialists to compare prices. Ask a friend if they know someone or look in the phone book. Redford Township cannot endorse any drain cleaning company. When you call, ask each of them what the minimum cost will be? How many feet of sewer cleaning this includes? How much for each additional foot? Do they offer a warranty? If so, how long and what does it include? If one bid is extremely low, you may want to ask for references (Better Business Bureau or previous customers of the company). Once they have opened up the drain, ask them to clean it with the largest cleaning tool they can safely use.

Did you know . . .

- The average person uses 50 - 100 gallons of water a day
- Flushing a low flow toilet uses 1.6 – 3.2 gallons of water
- Flushing a regular toilet uses 5 gallons of water
- The average five minute shower uses 25 – 50 gallons of water
- The average dishwasher load uses 9-12 gallons, while hand washing averages 10 -20 gallons
- Washing a load of clothes can use 30-32 gallons of water
- Outdoor irrigation, especially those automated sprinkler systems, can account for 60 percent of your water use

6



R. Miles Handy II
Township Supervisor

Charter Township of Redford
Water & Sewer Department
12200 Beech Daly, Redford MI 48239
(313) 387-2670

Presort
Standard
US Postage PAID
Livonia, MI
Permit #1316

ECRWSS
POSTAL PATRON

Attention: This is our annual report to residents and businesses on the quality & safety of Redford Township's water.