

## Southwest & Springwells Water Treatment Plants 2013 Regulated Detected Contaminants Tables

Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
<b>Inorganic Chemicals – Monitoring at Plant Finished Water Tap</b>								
<b>Fluoride</b> Southwest Plant	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.
Springwells Plant	5/13/2013	ppm	4	4	0.66	n/a	no	
<b>Nitrate</b> Southwest Plant	5/13/2013	ppm	10	10	0.69	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Springwells Plant	5/13/2013	ppm	10	10	0.42	n/a	no	
<b>Barium</b> Southwest Plant	6/9/2008	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Springwells Plant	6/9/2008	ppm	2	2	0.01	n/a	no	
<b>Selenium</b> Springwells Plant	6/9/2008	ppb	50	50	1.0	n/a	no	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
<b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System BOTH PLANTS</b>								
<b>Total Trihalomethanes (TTHM)</b>	2013	ppb	n/a	80	25	11 - 32	no	By-product of drinking water chlorination
<b>Haloacetic Acids (HAA5)</b>	2013	ppb	n/a	60	12	6.8 - 16	no	By-product of drinking water disinfection

Disinfectant Residuals Monitoring in Distribution System SPRINGWELLS PLANT								
Disinfectant (Total Chlorine Residual)	2013	ppm	MRDGL 4	MRDL 4	0.70	0.59 – 0.77	no	Water additive used to control microbes
Disinfectant Residuals Monitoring in Distribution System SOUTHWEST PLANT								
Disinfectant (Total Chlorine Residual)	2013	ppm	MRDGL 4	MRDL 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				
<b>Highest Single Measurement Cannot exceed 1 NTU</b>	<b>Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)</b>		<b>Violation yes/no</b>	<b>Major Sources in Drinking Water</b>
Springwells 0.22 Southwest 0.20	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 yes/no	Major Sources in Drinking Water
<b>Total Coliform Bacteria</b>	0	Presence of Coliform bacteria > 5% of monthly samples	in one month 0	no	Naturally present in the environment.
<b>E.coli or Fecal Coliform Bacteria</b>	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	entire year 0	no	Human waste and animal fecal waste.

Contaminant	Treatment Technique	Running annual average	Monthly Ratio Range	Violation Yes/No	Typical Source of Contaminant
<b>Total Organic Carbon (ppm)</b>		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

2013 Special Monitoring BOTH PLANTS				
Contaminant	MCLG	MCL	Level Detected	Source of Contamination
<b>Sodium (ppm)</b>	n/a	n/a	4.62 – 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



### PROTECTING OUR WATER ...

#### SEVEN SIMPLE STEPS

Here are seven simple steps you can take in your home and yard to protect our lakes and streams.

1. Help keep pollution out of storm drains. Storm drains lead directly to our lakes and streams. So, never dump oil, pet waste, leaves, dirty water, or anything down a storm drain. Remember, only rain in the drain.
2. Fertilize sparingly and carefully. Excess fertilizer that gets into storm drains pollutes our lakes by causing large algae blooms and using up oxygen fish need to survive. Sweep excess fertilizer back onto your lawn, use a low or no phosphorus fertilizer, and have your soil tested to see what, if any, fertilizer is needed.
3. Carefully store and dispose of household cleaners, chemicals, and oil. Instead of putting hazardous products like antifreeze, motor oil, and pesticides in the trash, down the storm drain, or on the ground, take them to a local hazardous waste collection day.
4. Clean up after your pet. Whether on a walk or in your yard, promptly clean up after your pet. Not only will be you a good neighbor, you will also protect our water from harmful bacteria.
5. Practice good car care. Consider taking your car to a car wash or washing your car on the grass.
6. Choose earth friendly landscaping. Protect your pets, kids, and the environment by using pesticides sparingly. Also, water your lawn only when it needs it and choose plants native to Michigan.
7. Save water. Overwatering our lawns 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. This will help save our lakes and streams and save you money.

#### Key to Detected Contaminants Table

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. MRDLG's 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 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>ND</b>	Not Detected	
<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>HAA5</b>	Haloacetic acids	HAA5 is the total of bromoacetic, trichloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
<b>TTHM</b>	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on total.
<b>pCi/l</b>	picocuries per liter	a measure of radioactivity
<b>n/a</b>	not applicable	
<b>&gt;</b>	Greater than	



## THE CITY OF TRENTON

# CONSUMERS ANNUAL REPORT ON WATER QUALITY for 2013

The City of Trenton 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 City of Trenton is proud of the fine drinking water it supplies and is honored to provide this report to you.



**ATTENTION:**  
**THIS IS AN IMPORTANT REPORT ON WATER QUALITY**  
WQR NO. 15

# Our System...

The 2013 Consumers Annual Report on Water Quality shows the sources of our water, lists the results of our tests, and contains important information about your water and health.

The City of Trenton and/or the Detroit Water and Sewerage Department will notify you immediately if there is ever any reason for concern about our water. We are pleased to show you how we have surpassed water quality standards as mandated by the Environmental Protection Agency (EPA) and the State of Michigan Department of Environmental Quality (MDEQ).

The City of Trenton, as well as most of our surrounding communities, purchases water from the Detroit Water & Sewerage Department (DWSD). The Detroit Water Department provides drinking water to approximately 4.2 million people in 126 southeastern Michigan communities. The system uses water drawn from two intakes in the Detroit River, one to the north near the mouth of Lake St. Clair and one to the south near Lake Erie. The water is directed to four (4) large water treatment plants for processing. A fifth water treatment plant located in St. Clair County uses surface water from Lake Huron. The four plants that treat water drawn from the Detroit River service Detroit customers as well as most Downriver communities.

## Important 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. The City of Trenton is responsible for providing high quality drinking water, but cannot control the variety of material 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>.

## City of Trenton Residential Lead and Copper Testing

Lead and Copper Monitoring at customer's Tap								
Contaminant	Test Date	Units	Health Goal MCLG	Action Level AL	90th Percentile Value*	Number of Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead	2011	ppb	0	15	2.4	0	No	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2011	ppb	1300	1300	59 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.

## Other Monitoring

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.)

The State allows us to monitor for certain contaminants less than once per year because the concentration of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

In addition to testing which is required to be performed, DWSD voluntarily tests for hundreds of additional substances and microscopic organisms to make certain our water is safe and of the highest quality. If you are interested in a more detailed report, contact the **Water Quality Division at (313)267-3629** or the **City of Trenton** Water Department at **(734) 675-8470**.

## 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 the 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.

# Our Water Is Safe To Drink

We obtain water from the city of Detroit whose treatment facilities operate 24 hours a day, seven days a week. The treatment process begins with disinfecting the water with chlorine to kill harmful 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. These filters 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 old household plumbing systems. The chlorine keeps the water disinfected as it travels through water mains to reach your house.

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. Hundreds of samples are tested each week in certified laboratories by a highly qualified, trained staff. Detroit water not only meets safety and health standards but also ranks among the top 10 in the country for quality and value.

### Opportunities for Public Participation

The Board of Water Commissioners generally meets the fourth Wednesday of each month. There are also public hearings and meetings open to the public. To confirm dates and times or for information on other activities happening in the department, please contact the **Public Relations Department** at **(313) 964-9570** or visit our website at [www.dwsd.org](http://www.dwsd.org). We welcome your comments and opinions about this report and will be happy to answer any questions you may have. Please direct your comments or questions to the **Water Quality Division** at **(313) 267-3629** or the **City of Trenton** Water Department at **(734) 675-8470**.

## National Primary Drinking Water Regulation Compliance

In 2013 Trenton had no monitoring violations. A monitoring violation is not an exceedence of an MCL or health standard. 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.

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 for 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 at (800-426-4791)**.

## 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 more information about this report or a complete copy of this report, please contact your water department at (734) 675-8470.

## Schedule Automatic Lawn Watering to Reduce Future Rate Increases

In order to control increasing wholesale costs for water from the City of Detroit we are requesting that owners of automatic lawn sprinkler systems with pre set timers schedule their sprinklers to come on after 11:00 p.m. and that all automatic lawn watering be complete by 5:00 a.m. These efforts will help limit the City of Trenton's peak daytime water usage and ultimately reduce future rate increases to the City of Trenton, this effort will help control the water rate increases that you are required to pay. Many people believe that watering lawns at night is harmful; Michigan State University's Co-Operative Extension Service states that watering at night does not harm your lawn, and in fact un-irrigated lawns are soaking wet every morning in the summer from dew forming. Additionally watering at night limits losses to evaporation and allows the water to soak into the ground better. Sprinklers need to be timed to correspond to this routine wetting of the grass, and be cycled to be complete before 5:00 A.M.

## Prescription Drug Disposal - DO NOT FLUSH!

The new Federal prescription drug disposal guidelines are designed to reduce the diversion of prescription drugs, while also protecting the environment. These Guidelines urge Americans to:

### DO NOT FLUSH!!

- Contact your local pharmacy to see if they have a take-back program in place for unused, unneeded, or expired prescription drugs.
- Take unused, unneeded, or expired prescription drugs out of their original containers:
- Mix the prescription drugs with an undesirable substance, like used coffee grounds, cat litter, or old latex paint and put them in impermeable, non-descript containers, such as empty cans or sealed bags, further ensuring that the drugs are not diverted or accidentally ingested by children or pets;
- Throw these containers in the trash



West Road Riverfront



Elm Street Riverfront