



The Pipeline 2014

Water Quality Report

Published June 2014



The Great Lakes at 80.3% ice cover, on February 19, 2014, taken by the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Aqua Satellite (Jeff Schmaltz, LANCE/EOSDIS MODIS Rapid Response Team, NASA).
Ours to Protect.

Loving Shelby Township



THE DEPT OF PUBLIC WORKS

The Shelby Township Department of Public Works is located at 6333 23 Mile Road (between Van Dyke and Mound) just west of the Fire Station. We are open from 8:00 a.m. to 4:30 p.m., Monday through Friday.

You may pay your bill at our office or at the Township Treasurer's Office in the Municipal Building at 52700 Van Dyke. Both locations also have 24 hour drop boxes located outside the front entrances.

Water Department policies are set by the Shelby Township Board of Trustees. The Board meets on the first and third Tuesday of each month at 7:00 p.m. at the Township offices. These meetings are open to the public.

The Department of Public Works is here to serve you and answer your questions. If you have any concerns about your water or sewer service, please contact us at (586) 731-5990.

Drinking water regulations require that Shelby Township produce and distribute the information in this report each year because Congress and the EPA want to be sure that you know what is in your drinking water.

Once you have read this booklet, we would appreciate your feedback. Please call us at (586) 731-5990 or e-mail us at dpw@shelbytpw.org with your comments and/or suggestions.

On behalf of the Shelby Township Department of Public Works, it is my privilege to present to you the 2014 "Pipeline", our annual report regarding the safety and quality of your municipal drinking water. In addition to the material mandated by the United States Environmental Protection Agency, we are including information regarding responsible water usage and environmental issues, along with other tips we believe you will find interesting and helpful.

I hope that you will find our new method of electronically distributing the consumer confidence report convenient and effective. By utilizing this process, we are able to save thousands of dollars bringing the CCR to each household electronically. As in the past, hard copies of the reports are still available by calling the DPW at 586 731-5990.

As we continue to bring new technology to the table you will see efficiencies such as on-line bill payments and payments by credit and debit cards put in place. If you have any recommendations for the implementation of new technologies or if you have any questions regarding any of the topics that you read throughout this report, please feel free to contact me.

David Miller, Director of Public Works
Shelby Township DPW

THE COST OF WATER

(You Can Make a Difference)



During these tough economic times, no one is looking forward to receiving large summer water bills. The Shelby Township Water Department works diligently to supply water at an affordable rate, while continuing to provide a safe and sufficient supply to each household. Fortunately, two primary causes for extraordinarily high bills are controllable. These causes are leaks (which you will read more about in this document) and lawn irrigation.

Lawn irrigation is a major factor during the summer billing period. Not only is the homeowner increasing the amount of water he or she is paying for, but the increased demand between the hours of 5 a.m. and 9 a.m. is a primary driver for water rates.

Residents often come into the water department looking for advice on ways to reduce their summer bills. After reviewing their consumption history, the answers are often quite simple.

The first, and often the easiest solution, is to adjust the frequency and duration of watering. Many residents will inform us that they water every day for a half hour or more per zone. We recommend to them that, by cutting down the frequency and duration to every other day and no more than 20 minutes per zone,

they could potentially cut the irrigation portion of their bill by 50% or more.

We suggest homeowners check their irrigation system. They should assure that there are no leaks, that all sprinklers are in working

order, and that they water landscaped areas only, not driveways, sidewalks, and streets. Remember, if you see water seeping from the lawn area onto the edge of the road or if the lawn squishes under your feet as you walk on the grass you are watering too much.

PEAK HOUR AND MAXIMUM DAY DEMANDS ARE PRIMARY DRIVERS IN THE RATES FROM DETROIT AND THEY ARE CONTROLLABLE.

When should I water?

YES!!

WATER BETWEEN MIDNIGHT - 5AM



**DO NOT WATER
BETWEEN 5AM - 9AM OR 5 PM - 9PM**

We also suggest the purchase of an Area Maintenance Meter by those customers who are connected to sanitary sewer. You will find additional information regarding these meters in this document.

As indicated above, lawn irrigation has an impact on our rates. Most irrigation systems are set to run between the hours of 5 a.m. and 9 a.m. and 5 p.m. and 9 p.m. Because of this concentrated use of water, the demand during this time can be up to 5 times more than the average demand. Since the Detroit Water and Sewerage Department must be prepared to meet this peak demand, they pass on the additional pumpage and energy costs to the Township in our rates. Peak hour and maximum day demands are primary drivers in the rates from Detroit and they are controllable.

The City of Detroit has indicated that, in its new contract with Shelby Township, water

use between the hours of 12 midnight and 5 a.m. will not be used in the calculation of peak demands. Therefore, if we can shift the majority of our lawn irrigation to this time period, we can possibly lower the rates from Detroit or at the very least minimize future rate increases. Our usage patterns can make a difference in this time of need.

The Township Board of Trustees has also recognized this potential savings to the residents with the adoption of the voluntary odd / even sprinkling ban ordinance. This ordinance states that homeowners with addresses ending in an even number should water on even numbered calendar dates and homeowners with addresses ending in an odd number should water on odd numbered calendar dates. It also recommends that **lawns should not be watered between the hours of 5 a.m. and 9 a.m. and 5 p.m. and 9 p.m.**

Should you invest in a second water meter?

**IF YOU ARE CONNECTED TO THE WATER & SEWER SYSTEM,
IT COULD MEAN A SIGNIFICANT SAVINGS**

Shelby Township offers a second meter to those customers who are connected to both water and sanitary sewer. The use of this area maintenance meter eliminates sanitary sewer charges for lawn irrigation, which means a cost savings to the homeowner.

Please call the department at (586) 731-5990 for information regarding cost.

MISS DIG:

“know what’s below”

MISS DIG is Michigan’s one-call utility notification organization. Before residents or contractors do any digging, they should call Miss Dig which will then notify its member utilities to mark the approximate location of their underground public utility lines.

MISS DIG can be reached at **800 482-7171** or by simply dialing:

8-1-1

Should you find stakes on your property, please do not remove them until work has been completed. Should they be accidentally removed, please contact Miss Dig.

MICHIGAN’S UTILITY COLOR CODE

RED		Electric
YELLOW		Gas, Oil, Steam or Petroleum
ORANGE		Communications
BLUE		Potable Water
PURPLE		Reclaimed Water Irrigation
GREEN		Sewer & Drain Lines
WHITE		Proposed Excavation
PINK		Temporary Surveying



Residents Can Now Access Their Accounts Online!

Viewing your account information just got easier with the recent introduction of online account access via the Shelby Township DPW website. You may view the current account summary, view/print your current or past bill, view the account history for billing and payment history. To review your account information, you may go to the Shelby Township DPW website and click on the "Bill Payment" tab to access the link or to access the website directly:

<https://esuites.shelbytwp.org/eSuite.Utilities> You will need to enter your account number and name exactly as it appears on your water bill.

Using your smart phone, click the QR code to be automatically directed to the above website for account information.



Understand Your Water Meter



Are you Flushing Water down the drain?

We've all heard it. The persistent drip of a leaky faucet, or the toilet that seems to run on a bit longer than it used to....we tighten up the faucet handle, jiggle the flusher lever and hope that's going to do the job.

...Shelby Township **cannot** adjust your bill for water wasted through leaks!

STOP!

Those annoying little sounds are indications of a leak which can be a costly waste that will be reflected in your water bill.

A leaky faucet or toilet can waste hundreds of gallons of water every day. If your faucet drips, even a little, replace the rubber washer in the faucet head -- a few cents and a few moments will save you money every day. If you suspect a leaky toilet, put a little food coloring in the tank (not the bowl). Don't flush for fifteen minutes. If the color begins to appear in the bowl (without flushing), you have a leak that needs to be fixed right away.

If your faucets and toilets pass the leak tests, but you

still suspect a leak somewhere, it's time to check your water meter. Water meters are typically located in the basement, laundry room

or utility closet. Reading your meter is like reading a car

odometer. For billing purposes, we use only the first four digits on the left.

The first and easiest method is to use the red diamond or triangle-shaped leak detector equipped on most meters. If your meter is not equipped with a leak detector, the second method of checking for leaks is to put a piece of tape across the "sweep second hand" on the face of the meter. Make sure all the water is turned off in and outside your house,

A leaky faucet or toilet can waste **hundreds of gallons of water** every day.

then mark the location of the hand. After a short time, movement of this dial indicates a leak.

If your meter indicates a

leak, it's time to become a water detective. You have checked the faucets and toilets, so now look at the shower heads, water heater, furnace humidifier, ice cube maker, outside faucets, water softener, water purifier and lawn irrigation system.

Having a leak repaired will be less costly in the long run than the amount you will pay for wasted water. Please remember that Shelby Township cannot adjust your bill for water wasted through leaks!

To determine how much water a leak may be wasting, go to the Water Wiser Drip Calculator at: <http://www.awwa.org/advocacy/learn/conserves/dripcalc.cfm>.

If you have a water powered back-up sump pump, make sure it is in good working order. A mal-

functioning pump can use an exorbitant amount of water. You may want to exercise the pump periodically to ensure that it is functioning properly.

Paying Your Water Bill

Plus, options to save time & avoid late fees!

The Shelby Township Department of Public Works processes over 100,000 mail payments a year!

We have worked to make bill payments easy and flexible. You can remit your water bill payments by mail, by online bill payment service, through automatic bill payment, or in person.

If you are mailing a check, please note the following which will ensure that your payment is properly credited:

- **Mail the bill stub, from your bill, with your payment**
- **Fill your check out completely and sign it**
- **Include your account number on your check**

If you are using a bank payment service, a check will be mailed to us. Make sure that your account number and the service address are included on the check. THERE MAY BE A PERIOD OF SEVERAL DAYS BETWEEN THE TIME A PAYMENT IS MAILED AND WHEN WE RECEIVE IT.

Automatic Bill Payment is also available. Customers

PLEASE ALLOW ENOUGH TIME FOR YOUR PAYMENT TO REACH OUR OFFICE BY THE DUE DATE.

can authorize payment to be withdrawn automatically from their checking or savings accounts. Enrollment forms are available online at www.shelbytpw.org or you may call (586) 731-5990. There is a one time \$2.00 enrollment fee as well as a charge of \$.35 per quarterly transaction.

If you are an automatic bill payment customer, you will receive a statement indicating the date on which payment will be withdrawn from your account. It will include the notation "Do Not Pay".

If you would prefer to pay by credit card, arrangements can be made by phone at (800) 272-9829 or online at www.officialpayments.com up to a maximum of \$500.00 per transaction. A convenience

fee of \$6.50 must be paid to Official Payments for this service. You will be asked for Shelby Township's Jurisdiction Code, which is 7006.

If paying in person, we accept cash, checks or money orders at the Department of Public Works and at the Treasurer's office. We cannot process a credit or debit payment.

Should you overpay and have a credit on your account, it will be indicated as follows: (\$135.00). Do not pay a credit bill.

Coming Soon!!

Watch for online Water Bill Payment Options -

The Department of Public Works is currently working on providing online payment options through its website. These payment options will include online payments from checking/savings accounts and credit card payments. Please check the website for updates.

Delinquent Water Bills:

Any past due balances which are six months delinquent as of October 31st will be added to the current year's tax roll.



MOVING?

Please contact the Shelby Township DPW at 586-731-5990 Ext. 1853

If you are moving out of your home, we request 24-48 hours to obtain a read (from the outside of the home) and prepare a final read bill. To expedite the final read process, you can provide us with the 6-digit number off the face of the meter (located in the home) when you call. We will then prepare a final bill that can be emailed, mailed, faxed, or picked up in our office at 6333 23 Mile.

If you are a new resident moving into Shelby Township, please contact us to place your name on the account and to verify that a final read was completed by the previous owner.

If you are moving in or out of an apartment or mobile home, please handle any final reads through your main office. If you are moving out of a condominium, please note that your meter may be located in another unit, therefore, we will obtain the read for you.



View Website for Updates

FREE Electronics Recycling

Shelby Township, in conjunction with Vintage Tech Recyclers, offers a free, safe and secure electronics recycling program the last Saturday of each month, except December. This program is in effect for 2014. The electronics recycling program is open to both residents and non-residents and takes place from 9:00 a.m. to 1:00 p.m. at the Shelby Township Municipal Grounds, 52700 Van Dyke (located southeast of the intersection of 24 Mile Road and Van Dyke). Please visit the Solid Waste and Recycling Committee's website, shelbytw.org/recycle for any questions regarding the current program.

Items accepted can be found at www.shelbytw.org/recycle.



Any questions please call
1-(586)-731-5990 Ext. 1855.



ELECTRONICS RECYCLING FUNDRAISING

Shelby Township, through the Solid Waste and Recycling Committee, has negotiated a revenue reimbursement program for eligible electronics with Vintage Tech Recyclers.

The "Community Give-Back Program" has three primary goals:

- Provide 501(c) service organizations and school organizations located in the township the opportunity to raise funds.
- Obtain assistance from the organizations for marketing and advertising the event.
- Comply with hosting the event requirement of the contract by requiring the organization to be the primary host of their event.

Information and applications for interested organizations may be obtained by calling 586-731-5990, Ext. 1855.



Disposable Does Not Mean Flushable!



Recently, we have experienced an increase in sanitary sewer blockages caused by disposable diapers, cleaning cloths, etc. Please remember that these items should be disposed of in a waste container and not in the toilet. Flushing these items can cause a blockage in your internal system, leading to a backup of sewage into your home. They can also cause blockages in the sanitary sewer mains, leading to backups of sewage into your neighbors' homes. Clearing such blockages is costly and time consuming. Even if the box indicates that they are flushable, disposable diapers should not be put in the toilet.

Remember -- when in doubt, throw it out!

GREASE!! Blockages caused by grease have become an increasing problem. Please DO NOT put grease in your disposal, sinks or toilets. It will harden in the pipes and cause a backup! Please go to shelbytw.org/recycle for the proper disposal method for grease.

DISPOSAL OF MEDICATIONS



Please do not flush your outdated or excess medications down the toilet. Remember that anything you flush eventually makes its way into our water system. Do not put your medications into the garbage—this can lead to consumption by children or pets.

The Shelby Township Police Department now has a MedReturn drug collection unit for discard of prescription medications. It is available 24 hours in the lobby of the police department. Accepted items include prescription medications, patches and ointments, over the counter medications, vitamins, and pet medications.

The environmental division of the Macomb County Health Department also accepts unwanted and outdated medications from Macomb County residents through their Household Hazardous Waste collection program. Please remove unwanted pills from their bottles or blister packs and combine them in a container such as a Ziploc bag. Do not bring pills in their original packaging. For liquid prescriptions use a black marker to block out all identifiable data from the bottle, such as your name and those of the doctor and the drug. Contact the Health Department HHW Hotline at 586-466-7923 for the times and dates of collection. No controlled substances are accepted. Contact your local pharmacy for disposal of these items.

YOUR TRASH IS IMPORTANT TO US



Rizzo is the current waste hauler for Shelby Township single family residential customers. They provide curb side pickup for trash, yard waste, and recyclables. Commercial, industrial and multifamily sites will contract privately for trash collection.

The contact number for trash, yard waste, and recycling is 866-772-8900 and their website is www.RizzoServices.com.

As of July 1, 2014 rates are \$13.58 per month. If you are a residential customer 60 years old and older, you are eligible for a 10% discount. Please call (866) 772-8900 for more information.

An annual pay incentive is also in place. At the beginning of each contract year, starting July 1, 2012 residents who choose to pay their entire year up front will receive one month free. To be eligible for the discount, Rizzo must receive advance payment by the due date of July 1.

A recycling incentive program is in place. This program will award discounts and offers from local merchants. Log on to www.Rizzorewards.com for further information and to activate your account.

IMPORTANT REMINDERS!

- Please place your trash, yard waste, bulk waste and recycling at the curb by 7:00 a.m.
- Please write your address on your trash and yard waste carts with permanent marker. In the event they leave your property, they can be returned to you.
- Yard waste collection begins on April 1 each year and continues through Friday of the second week of December.
- There is no pick up on New Year's Day, Memorial Day, 4th of July, Labor Day, Thanksgiving or Christmas. Should your pick up fall on or after one of those days, it will be one day later for that week only.

What do I do with...

There is a comprehensive list of items and how to dispose of them on the Shelby Twp. website www.Shelbytwp.org. Use the search engine and type in **What Do I Do with** for the list. Some of the items addressed are Propane Cylinders, carpet, car batteries, electronics, fire extinguishers, furniture, gasoline cans, household batteries, latex paint and many other items.



Shred Day

The Shelby Township Police Department is hosting a shred day on Saturday, October 18, 2014 from 9:00 am to 1:00 pm at the Shelby Township Municipal Building. This is open to all residential and business customers. Business customers are urged to bring no more than two boxes to be shredded.

In compliance with Public Act 222 of 2001, please be advised of the following:

Please contact the Shelby Township Department of Public Works at (586) 731-5990 immediately upon discovery of an overflow or backup. After normal business hours, contact the Shelby Township Police Department at (586) 731-2121. If you experience an overflow or backup of a sewage disposal system or storm water system, you must file a written claim with the Shelby Township Department of Public Works within 45 days after the overflow or backup was discovered. Failure to do so will prevent the recovery of any damages that may be due to you under the provisions of Act 222. To receive a Notice of Claim form, contact the DPW at (586) 731-5990, ext. 1850.

STREETLIGHTS



If you are a Detroit Edison residential or business customer, you can now report a streetlight problem online at dteenergy.com/streetlight. With the new online system, reporting an outage and getting it fixed is easier and faster than ever. Simply fill in the address of the outage and your contact information -- it only takes a minute but can make a big difference in getting repairs done quickly.

In addition, customers can report streetlight problems by calling Detroit Edison toll free at (800) 477-4747. If you are unable to make the report using these methods, the Shelby Township DPW, as always, will be happy to assist you. Please call Ext. 1855 or 1850 at (586) 731-5990 and we will report the problem to DTE on your behalf. Please provide us with the address where the light in question is located, or the nearest intersection. There is a tag on each light post with a streetlight number -- it will be very helpful if you can provide that number as well.

MACOMB COUNTY ROADS

All public roads and road right-of-ways within Shelby Township fall under the jurisdiction of the Macomb County Department of Roads. This department is responsible for issues regarding road repairs, ditches, snow plowing, street signs, etc. To request a replacement street sign or for issues regarding snowplowing and/or road maintenance, contact the Department of Roads at (586) 463-8671.

OVER THE LAST DECADE WE HAVE BECOME MORE AWARE OF OUR WORLD, THE ENVIRONMENT AND OUR IMPACT ON IT. THERE ARE SMALL CHANGES WE CAN MAKE IN OUR EVERYDAY ACTIVITIES THAT WILL HELP ENSURE WE ARE DOING OUR PART TO CONSERVE OUR BEAUTIFUL TOWNSHIP AND THE RESOURCES WE ALL ENJOY IN IT.

Eco-friendly Tips Can Help Save Our Environment



Spring Lake

We reside in the Clinton River watershed. A watershed is an area of land that drains into a common body of water. The area of southeastern Michigan which flows into the Clinton River, and eventually into Lake St. Clair, covers 760 square miles including over 1,000 miles of streams as well as the 80 mile long main branch.

Storm water runoff, which is the water that enters the storm drains from your property and street, is the largest source of pollution in our watershed.

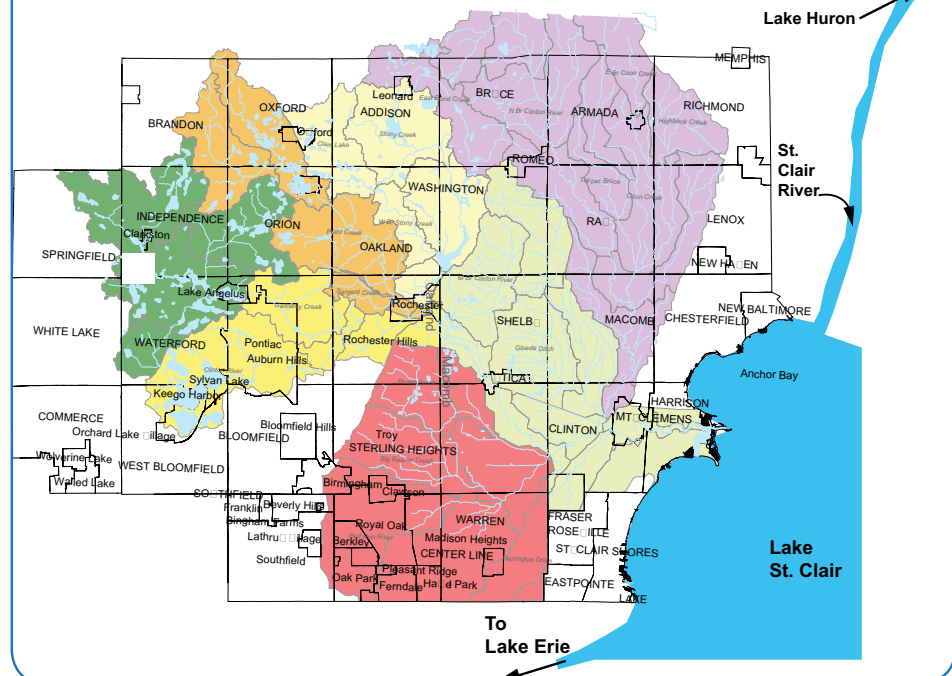
Storm drains are the openings you see along curbs, in streets and in parking lots. Water and debris which enter the

storm system do not go to a treatment facility; instead, they flow directly to our lakes and streams.

Under the National Pollutant Discharge Elimination System Phase II, communities in southeastern Michigan have banded together to plan for and accomplish storm water management.

The Clinton River Watershed

A watershed is another word for a river or lake basin. It is the area of land that drains into a body of water. Rain and snowmelt within this area flows down the rivers and streams and into the lake below. The Clinton River Watershed is an area over 760 square miles in four southeastern Michigan counties (Lapeer, Macomb, Oakland, and St. Clair) that flows into the Clinton River. More than 1.4 million people in 60 communities inhabit the watershed area. The Clinton River stretches more than 80 miles from its headwaters in Brandon, Springfield and Independence Townships to its mouth in Harrison Township, where it enters Lake St. Clair.



Heritage Gardens
at the Shelby Township Offices

DID YOU KNOW THAT 4.9 MILLION PEOPLE LIVE IN SOUTHEAST MICHIGAN?

The actions of each and every one of us affects the quality of life in our watershed. We can all pitch in and do our part to protect our precious water supply. The Southeast Michigan Council of Governments has developed some suggestions we can follow to help keep our water clean.



HELP KEEP POLLUTION OUT OF STORM DRAINS

Storm drains lead directly to our lakes and streams. Don't dump oil, pet waste, leaves, dirty water or anything else down a storm drain. **Remember, only rain in the drain!**

CLEAN UP AFTER YOUR PET

Whether on a walk or in your yard, promptly clean up after your pet. Not only will you be a good neighbor, you will also protect our water from harmful bacteria.

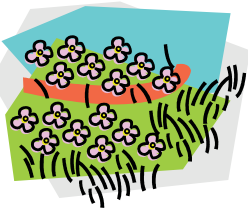


FERTILIZE CARINGLY AND SPARINGLY

Excess fertilizer that gets into storm drains pollutes our lakes by causing algae blooms and using up oxygen fish need to survive. If you think you need fertilizer, have your soil tested, then follow the manufacturer's instructions. **Remember, the use of phosphorous fertilizer is banned in Michigan.** Blow excess fertilizer off your driveway and walkway and back onto the lawn to KEEP IT OUT OF THE DRAINS!

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 (See shelbytwp.org/recycle for the next scheduled date and for alternative disposal information).



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.

PRACTICE GOOD CAR CARE

Consider taking your car to a car wash or washing your car on the grass.



SAVE WATER

Over watering 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.

For more information visit www.semCog.org.



or www.crw.org.



h₂O

The Water We Drink

Shelby Township's water is purchased from the Detroit Water and Sewerage Department and is surface water from Lake Huron which has been treated at Detroit's Lake Huron Treatment Plant.

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).



Beautiful Lilly Pads are abundant at Holland Ponds

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, 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,



Holland Ponds is home to a flourishing Heron population

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).

Your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal

streams that drain to Lake Huron. 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 a seven-tiered scale ranging from “very low” to “very high” based primarily on geologic sensitivity, water chemistry, and contaminant sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards. If you would like to have more information about this report or a complete copy of this report please, contact the Shelby Township Department of Public Works at 586-731-5990.

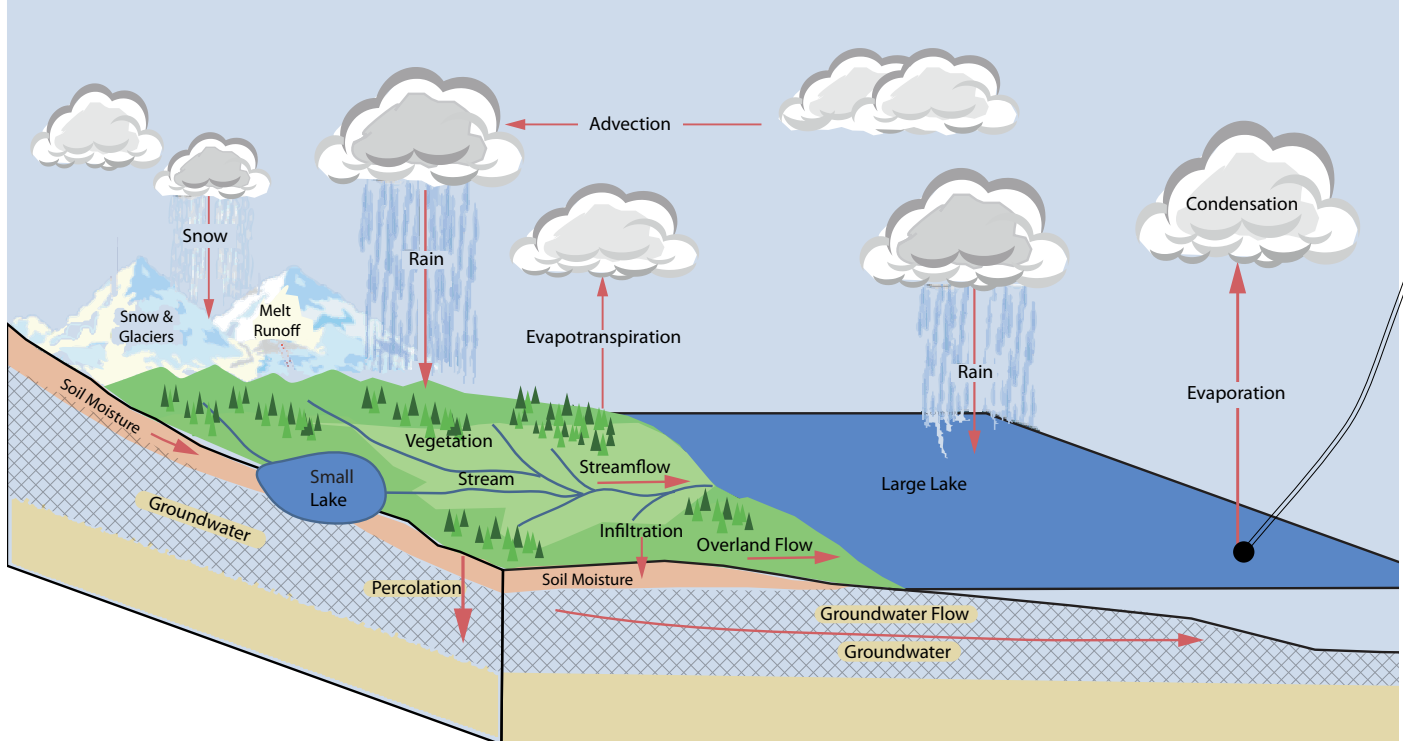


Water Testing

The Detroit Water & Sewer Department monitors for approximately 200 regulated and unregulated contaminants in drinking water, including pesticides and radioactive contaminants.

All monitoring data in this report is from 2013.

So, how exactly does water get from the “forest to the faucet”?

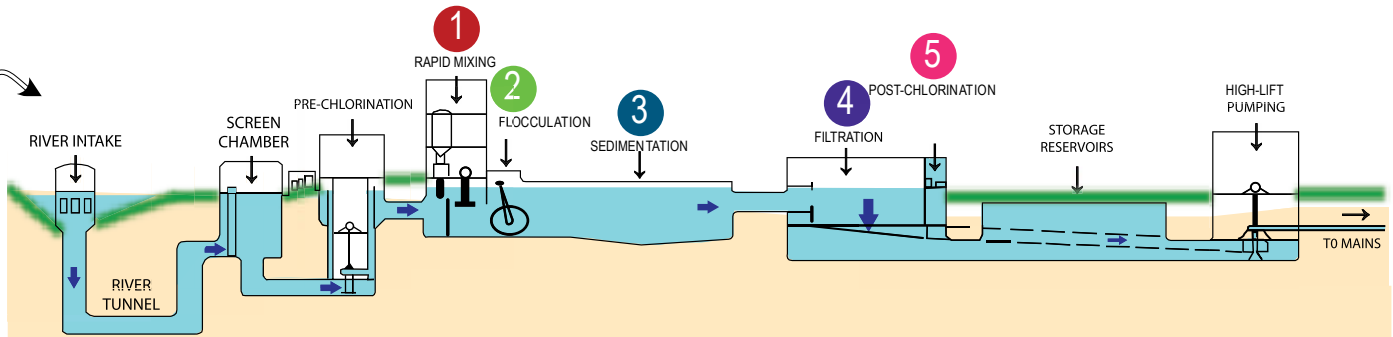


Lead was not detected in Shelby Township’s Water Sources

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. Shelby 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 or at: www.epa.gov/safewater/lead



Following the water....



Water goes through a 5-step Treatment Process:

- 1) After river or lake water flows through screens to remove bulk material and fish, and is pre-chlorinated, low lift pumping sends water to the first treatment step where rapid mixing is conducted by vertical turbine impellers, hydraulic turbulence or a pump mixing system.
- 2) Flocculation is a chemical process where smaller particles combine to form larger particles. Alum and other chemicals are added to form tiny sticky particles called “floc” that attract the dirt particles.
- 3) The dirt and floc become heavy enough to sink to the bottom of the tank during sedimentation.
- 4) The clear water moves on for filtration where it passes through filters to remove even smaller particles.
- 5) Chlorination or ozonation is used as a disinfectant to kill bacteria or microorganisms that remain before the water is sent to the storage reservoir and distribution system.

When you turn on the faucet, you get clean, fresh drinking water! *This is why it is so important that we do not pollute the ground and the storm drains!*

WHY A RAIN BARREL?

As we all think a little “greener”, now might be the time to consider a rain barrel for your yard. It’s a great way to save money and the environment.

Over 70% of the Great Lakes pollution is a result of storm water runoff. Rain barrels can be used to collect some of this run off. When it rains, the rain barrel collects water from the roof via a downspout into an opening in the barrel. There is typically a faucet near the bottom of the barrel which allows water to be removed by means of a watering can or hose.



Many people find this naturally soft and chemical free water most useful in the garden. By irrigating your plants with rainwater, you are also saving the cost of using municipal water for this purpose.

Rain barrels are readily available online and in some local home stores.

For more information about rain barrels or to purchase a rain barrel go to www.greatlakesrainbarrel.com. Great Lakes Rain Barrel is a local company out of Livonia.



Key to Detected Contaminants Tables

Action Level (AL)

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

Greater than (>)

Haloacetic acids (HAA5)

HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.

Location Running Annual Average (LRAA)

The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level (MCL)

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.

Maximum Contaminant Level Goal (MCLG)

The level of contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level (MRDL)

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.

Maximum Residual Disinfectant Level Goal (MRDLG)

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.

Nephelometric Turbidity Units (NTU)

Measures the cloudiness of water.

Not Applicable (n/a)

Not Detected (ND)

Part per Billion (ppb)

One in one billion. The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram. *(Corresponds to one penny in \$10,000,000.)*

Part per Million (ppm)

One in one million. The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram. *(Corresponds to one penny in \$10,000.)*

Running Annual Average (RAA)

Total Trihalomethanes (TTHM)

Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total.

Picocuries Per Liter (PCi/l)

A measure of radioactivity

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

We are proud that your drinking water currently meets or exceeds all Federal and State requirements. We have learned through our monitoring that some constituents have been detected. The EPA has determined that our water IS SAFE at these levels.

Lake Huron Water Treatment Plant - Regulated Contaminants Detected in 2013

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
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Inorganic Chemicals - Monitoring at Plant Finished Water Tap:

Fluoride	5/13/2013	ppm	4	4	0.55	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	0.32	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

Total Trihalomethanes (TTHM)	Jan-Dec 2013	ppb	n/a	80	31.25	9.9-54.0	no	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	Jan-Dec 2013	ppb	n/a	60	11.45	6.0-15.0	no	By-product of drinking water disinfection.

Disinfectant Residuals Monitoring in Distribution System

Disinfectant (Total Chlorine Residual)	Jan-Dec 2013	ppm	MRDGL 4	MRDL 4	0.81	0.65-0.93	no	Water additive used to control microbes.
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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 yes/no	Major Sources in Drinking Water
.26 NTU	100%	no	Soil Runoff

Turbidity is a measure of the cloudiness of the 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:

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.	in one month 0	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.	entire year 0	no	Human waste and animal fecal waste.

2011 Lead and Copper Monitoring at Customers' 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	0 ppb	0	no	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2011	ppm	1.3	1.3	.029 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.

2013 Special Monitoring:

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.52	Erosion of natural deposits.

Collection, sampling result information and table provided by Detroit Water and Sewerage Department (DWSD) Water Quality Division, ML Semegen.



Charter Township of Shelby
Department of Public Works
6333 23 Mile Road
Shelby Township, MI 48316
Monday - Friday 8:00 am - 4:30 pm

Richard Stathakis, Supervisor
Stanley Grot, Clerk
Mike Flynn, Treasurer
Paula Filar, Trustee
Paul Viar, Trustee
Nick Nightingale, Trustee
Douglas Wozniak, Trustee



Making RUNNING WATER Run

Men work on earth at many things:
Some till the soil, a few are kings;
But the noblest job beneath the sun
Is making RUNNING WATER run!



Some may extol the glamor boys
Who bring you heat and light and noise,
Delivered through a pipe or wire
To make your living standard higher.

Now kilowatts may light your house
And gas may cook your quail or grouse,
And fry your meat or even boil it –
But neither one will flush your toilet!



Let's not forget old Doctor Bell
Who showed us how to talk so well
Through many miles of tiny wire –
But talk's no good to quench a fire!

Your radio blares forth each day
To bring you music, joke and play,
Or sell you soap if you would rather –
But soap alone won't make a lather!



Now none of this is really news
About utilities you use;
You know, if you could choose but one,
You'd have your RUNNING WATER run!

We're on the job both night and day
And yet we work for more than pay,
Because, to us it's really fun
To make your RUNNING WATER run!



Sometimes it's easy to take for granted how easily we access water and the many ways we're able to use it, while some areas of the world lack water fit for drinking. The poem above was written by John L. Ford, Sr. of The Ford Meter Box Company. Compliments on his RUNNING WATER horse illustration inspired him to compose this poetic verse, which is a good reminder to be thankful for our most basic and yet most vital resource.

Note: The poem (with art) was first published as a poster in 1953.