



The Pipeline 2015

Water Quality Report

Published June 2015





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@shelbytp.org with your comments and/or suggestions.

Once again, I have the pleasure of presenting to you "The Pipeline", our annual report regarding the safety and quality of your municipal drinking water. Our 2015 edition will include information mandated by the United States Environmental Protection Agency, as well as information regarding responsible water usage, environmental issues and other tips and services I believe you will find interesting and helpful.

I would like to assure all of you that we are exploring every option to reduce costs, as well as making every effort to insure the safety and reliability of our water and sewer systems. Please pay particular attention to the section entitled "The Magnitude of Water" to see how water impacts the many facets of our lives. You will also find information on electronic payment options, the Great Lakes Water Authority, storm water management and changes to the MISS DIG rules.

Please take the time to read this report and keep it for reference throughout the year. If you have any questions or recommendations, feel free to call our office or email us at dpw@shelbytp.org.

David G. Miller
Director of Public Works

The Magnitude of Water

After that hard workout, after that long bike ride, after cutting the grass, many of us reach for a cool glass of water. We put some ice in a glass, turn on the faucet and amazingly the water comes out right on cue. But what would happen if it didn't? Isn't it incredible that we take one of the most vital life sustaining elements so much for granted. How is it that we just trust the product that is being delivered to our homes? How much do we really know about the source of the water we drink? In order to answer these questions let's explore the magnitude of water.

How does this water supply get from Lake Huron to our faucets?

First, let's take a look at the water supply that surrounds us. We are nestled in the middle of the Great Lakes basin.

This is the world's largest body of fresh water, holding nearly 20% of the total available supply. Shelby Township's water is supplied by the Detroit Water and Sewerage Department from the Lake Huron treatment plant. From the 16' diameter inlet pipe located 5 Miles out in

Lake Huron the water is delivered to the plant where it is treated, then pumped through a series of water mains that range in size from 10 feet to 3 feet in diameter. (To put this in perspective, most of us could walk through the larger mains with outstretched arms and not be able to touch the top or sides of the main.) Shelby Township has 6 connections to these distribution mains that provide the water for our use.

It is from these connection points that

Shelby Township residents receive an average 3.38 billion gallons of water per year. Again to put this into perspective, that is enough water to cover the entire Township with 5.5" of water or enough water to fill 169,000 – 20,000 gal swimming pools.

From these connection points (metering pits) the water is distributed throughout the Township through a series of smaller

(6" to 24" diameter) water mains that run in front of the homes within the Township. The Shelby Twp. DPW maintains approximately 375 miles of water main within the Township. This is equal to running one continuous water main along I-75 from the southern Michigan



border to Sault Ste. Marie.

Finally, the individual water services connect to the mains at the road bringing the water into the home, through the meter to the point it will be used in the house.

How does the water delivered to our homes get used?

As water enters the home it will be used in one of two ways, either for domestic (inside the house) or for irrigation. For domestic use the average person in Shelby Township uses 64 gallons per day. Again to put this into perspective, this is the same as filling 13 five gallon buckets per person, every day. But this doesn't answer the question, where does the water go? Approximately 65.5% of the domestic water is used in the bathroom (showers, toilet, faucets, etc.), 8.5% is used in the kitchen and 25.2% is used in the laundry room. Amazingly, only 1/2 gallon per person, per day is used for human consumption. This is equal to less than one percent of the total domestic water used.

As the summer temperatures come to a peak the demand for water increases tremendously. Lawn irrigation is the primary

driver. During the summer months the average home will use approximately 222 gallons of water per day to water the lawn. As you can see this is often 3 times more than we use for domestic purposes. As you read through this you may realize that the task of bringing a fresh water supply from the treatment plants to your homes is an enormous undertaking. Please be assured that throughout the whole process there are dedicated teams of people insuring that the water delivered to you meets or exceeds all regulatory requirements. The water is tested at the treatment plant and routinely monitored throughout the community. The Shelby Township DPW takes great pride in the water that is delivered to each of our residential, commercial and industrial customers (27,000 in all). We realize how important it is that every person in the Township can rely on the availability and quality of this most valuable resource when it is used for human consumption, domestic needs, lawn irrigation or fire protection. Should you have any concerns with your water supply please feel free to contact us.

Water 101



What can tell us that summer is here quicker than seeing the sprinklers water our green luscious lawns? Truth is that lawn irrigation is the largest residential water use, often using over 3 times what we use for domestic consumption. It is also a major contributor to those larger water bills we receive during the warmer months. What can be done to ease the burden? Let's look at three steps to help.

First, the Shelby Township Board of Trustees recognized the 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.

Secondly, we suggest that anyone who has water and sewer service to their home, look into purchasing an Area Maintenance Meter. The use of this second meter eliminates sanitary sewer charges for lawn irrigation, which means a cost savings to the homeowners.

Finally, most lawn irrigation is done between the hours of 5:00a.m. and 9:00 a.m. and 5:00 p.m. and 9:00 p.m. Because of this concentrated use of water, the peak demand can be up to 5 times larger than the normal usage. This peak is a primary factor in the determination of future water rates. In January of this year the Township signed a contract with the city of Detroit to provide water to our residents. As part of this contract no water use between the hours of 12:00 midnight and 5:00 a.m. will be used in the calculation of peak demands. Therefore, if we can shift the majority of our lawn irrigation to this period, we can minimize future rate increases.

When should I water?

YES!!
WATER BETWEEN MIDNIGHT - 5AM

Midnight 5am

Midnight 9:00 5:00

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

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.

Viewing Your Water Bill

VIEWING BILLS/ ACCOUNT INFORMATION ONLINE

You can view your past and present water bills in the following manner:

- Go to www.shelbytp.org
- Click on "DPW " under Departments
- Click on "Bill Payment"
- Click on the esuites link under "Check your Water Bill"
- The account number needs to be put in exactly as it appears on the bill
- The last name needs to be put in exactly as it appears on the bill (primary customer only)

DRIP, DRIP, DRIP



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.

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, 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/conserve/dripcalc.cfm>.

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

PAYMENTS BY MAIL

- Mail the bill stub containing the bar code with your payment
- Fill your check out completely, sign it and include the account number on your check
- Mail to: Shelby Township DPW
6333 23 Mile
Shelby Township MI 48316

DROPBOX

- A 24-hour drop box is available at our circle driveway at 6333 23 Mile Rd and at the Township main offices at 52700 Van Dyke (the 24 Mile entrance)
- Do not deposit cash in the drop box.

IN PERSON

- Cash, check, or money orders can be used to pay your bill at the DPW and at and at the Treasurer's Department at 52700 Van Dyke
- Credit and debit payments will be accepted soon! (watch our website for updates)

ONLINE BANK PAYMENTS

- Enter your account number **EXACTLY** as shown on your bill for electronic payment (see your bank for details).

AUTOMATIC BILL PAYMENTS

- Customers can authorize payments to be withdrawn automatically from their

checking or savings accounts.

- Enrollment forms are available at our office or online at www.shelbytpw.org on the DPW page.
- There is a one-time \$2.00 enrollment fee as well as a charge of \$.35 per quarter transaction.
- A statement indicating the date on which payment will be withdrawn, and a notation "Do Not Pay" will be sent.
- Any changes to banking information need to be submitted in writing.

CREDIT CARD PAYMENTS

- Payments can be made by calling Official Payments by phone at (800) 272-9829 or online at www.officialpayments.com.
- 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.

OVERPAYMENTS / CREDITS

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

DELINQUENT WATER BILLS

- Unpaid balances which are six months delinquent as of October 31st will be added to the owner's current year's tax roll.

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



[View Website for Updates](#)

Coming Soon!!

The DPW is currently working on providing additional payments options!

These will include online payments and use of debit and credit cards.

Please check our website for updates and fees



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.

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 2015. The electronics recycling program is open to all communities 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/recycling for any questions regarding the current program.

The following items will be accepted: televisions, monitors, computers, laptops, printers, fax machines, copier combo's, VCR's, keyboards & mice, DVD & CD players, microwaves, stereos, speakers, miscellaneous cables, computer parts, telephones, cell phones, game consoles, handheld electronics (iPods, Game Boys, etc.) and holiday lights. To verify acceptable items, call 586-726-7272.



ELECTRONICS RECYCLING FUNDRAISING

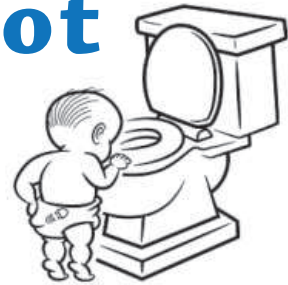
Shelby Township, through the Solid Waste and Recycling Committee, has negotiated a revenue reimbursement program for eligible electronics with Vintage Tech Recyclers.

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 586-726-7272.

Please Do Not Use Your Toilet As A Trash Can!



Flushing inappropriate items can cause plumbing problems and harm the environment.

Things NOT to flush:

- Medications, vitamins
- Hypodermic needles
- Cloth, rags, towels
- Dental floss
- Feminine products
- Plastic bags & bottles
- Chemicals, solvents
- Grease
- Baby wipes
- Fats, cooking oil
- Condoms
- Diapers
- Cigar tips, cigarette butts
- Paper towels
- Butane lighters

Did you know that the water you flush goes through the pipes and sewers, to our wastewater treatment plants, and then into our lake and river? **Protect our environment.**

Please dispose of diapers, paper towels, and other non-flushable items in the waste bins, not in the toilets. For more information go to: http://www.dwsdoutreach.org/Home/News/OCW_Flushables_1/tabid/211/Default.aspx

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.

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.

NIXLE

Nixle is a free community information service which allows messages to be delivered to subscribers instantly via cell phone text message and/or e-mail.

Get information regarding:

- Siren Testing
- Local Traffic Alerts (accidents, road closures)
- Police Emergencies
- Water/Sewer Emergencies



There is no spam and no hidden costs. Standard text messaging rates do apply. There is no charge for e-mail. Please use the link on the homepage of the Township website (www.shelbytw.org) to subscribe.

YOUR TRASH IS IMPORTANT TO US



Rizzo Services 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 contract privately for their trash collection.

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

As of July 1, 2015, Shelby Township has entered into a 10 year contract with Rizzo Services. Customers will be charged a flat rate of \$16.50 per month for the life of the contract.

Residential customers 60 years and older continue to be eligible for a 10% discount by calling the Rizzo offices. Residents who choose to pay for an entire year up front will receive one month free. To be eligible for this discount, Rizzo must receive advance payment by July 1st of each year.

A recycling incentive program is also offered. This program awards 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 approximately 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, July 4th, 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...

To answer questions on how to dispose of certain items, please access the Shelby Twp. website www.Shelbytwp.org/recycling and type "what do I do with" in the search engine. Some of the items addressed on this list are propane cylinders, carpet, car batteries, electronics, fire extinguishers, furniture, gasoline cans, household batteries, latex paint, etc.



Shred Day

The Shelby Township Police Department is hosting a shred day on Saturday, October 17, 2015 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



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.

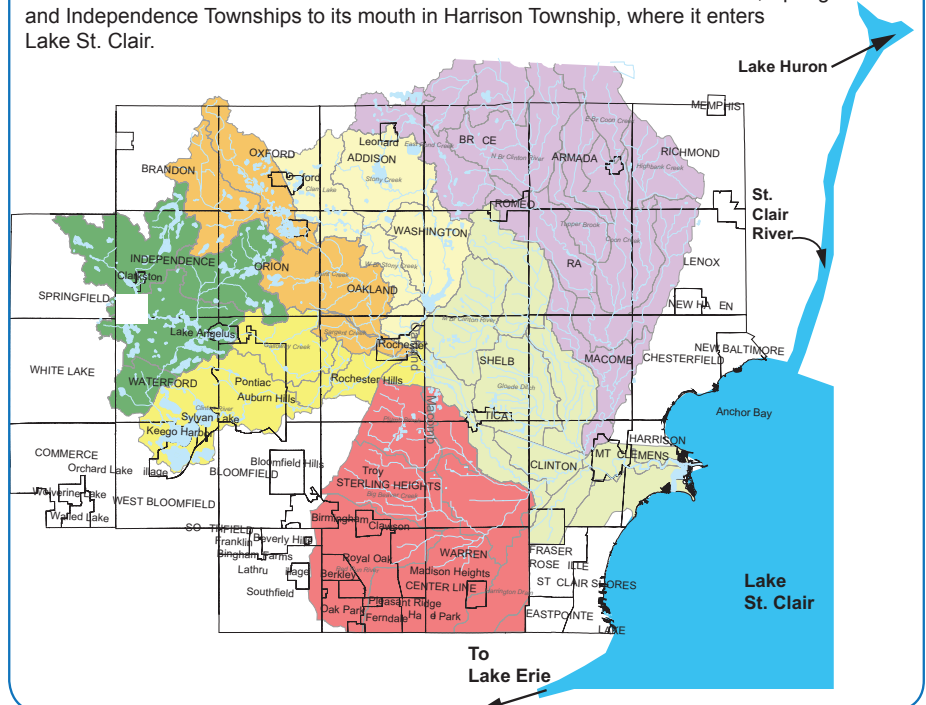
Storm drains are the openings you see along curbs, in streets and in parking lots. Water and debris which enter the

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.

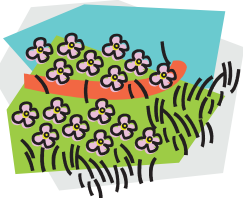


FERTILIZE CARINGLY AND SPARINGLY

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.



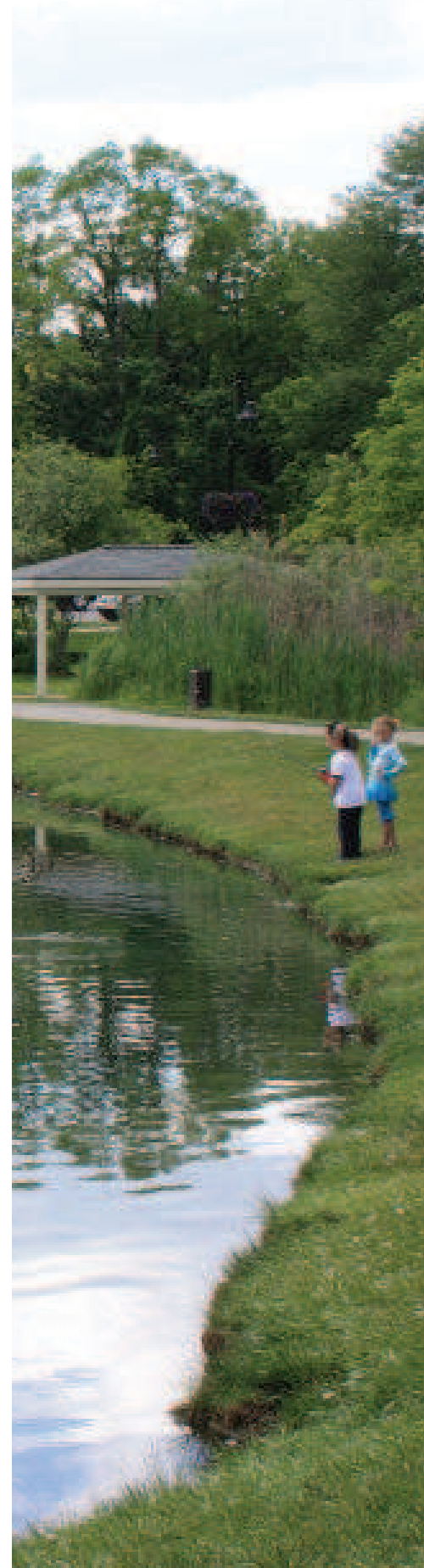
SAVE WATER

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.semco.org.



or www.crowc.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.

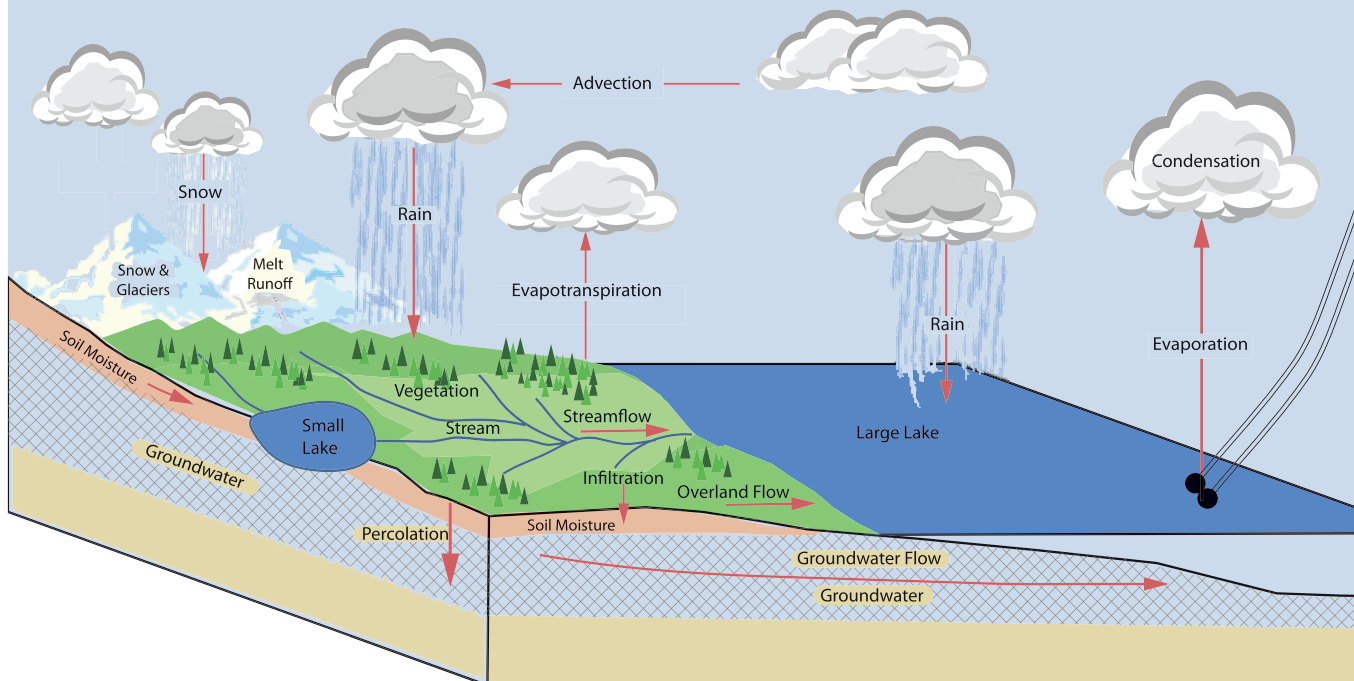


Water Testing

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 2014.

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

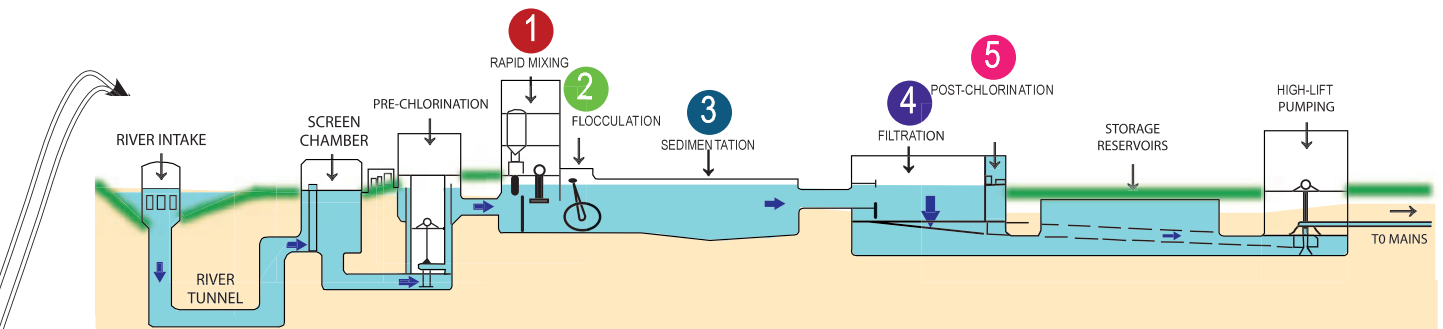


Lead was not detected in Shelby Township's Water Sources

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!*

The Great Lakes Water Authority: Welcome to history in the making!

For decades, the relations between the Detroit Water and Sewerage Department and their suburban customers have been strained. In recent years there has been an increased level of cooperation and collaboration leading to where we are today.

Welcome to 2015. Welcome to history in the making.

In 2014, as a central part of Detroit Emergency Manager Kevyn Orr’s plan of adjustment in pulling the city out of bankruptcy, regional operation and control of the Detroit Water and Sewerage Department (DWSD) was proposed, in exchange for annual lease payments from Wayne, Oakland and Macomb counties—an arrangement that, after some intense but cooperative negotiations, finally brought all parties together in support of the newly-formed Great Lakes Water Authority (GLWA).

On November 26, 2014, the once pie-in-the-sky idea of

a regional water authority became reality when the three counties and the city of Detroit formally signed the Articles of Incorporation, thus approving the formation of the GLWA.

The GLWA held its first official board meeting on December 12, 2014.

The GLWA is comprised of six board members: two from the City of Detroit, and one each from Wayne, Oakland and Macomb counties, plus one representing the State of Michigan.

For more Information please visit : <http://glwater.org/>

Key to Detected Contaminants Tables

> - 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 - Location Running Annual Average

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

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 MRDL

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

NTU - Nephelometric Turbidity Units

Measures the cloudiness of water.

PCi/L - Picocuries Per Liter

A measure of radioactivity. Picocurie (pCi) means the quantity of radioactive material producing 2.22 nuclear transformations per minute.

ppb - Parts per Billion

The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.

ppm - Parts per 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 the total.

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 2014

Regulated Contaminant	Test Date	Unit	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	5/13/2014	ppm	4	4	0.59	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	5/13/2014	ppm	10	10	0.31	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfection By-Products – Monitoring in Distribution System Stage 2 Disinfection By-Products

Total Trihalomethanes (TTHM)	2014	ppb	n/a	80	LRAA 18	11-34	no	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2014	ppb	n/a	60	LRAA 9	6.-12	no	By-product of drinking water disinfection

Disinfectant Residuals Monitoring in Distribution System

Total Chlorine Residual	Jan-Dec 2014	ppm	MRDGL 4	MRDL 4	RAA 0.82	0.64-0.94	no	Water additive used to control microbes
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Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
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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.
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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
0.19 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.

2014 Microbiological Contaminants - Monthly Monitoring in Distribution System:

Regulated 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.
E.coli Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	0	no	Human waste and animal fecal waste.

2014 Lead and Copper Monitoring at Customers' Tap:

Regulated 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	2014	ppb	0	15	.78	0	no	Corrosion of household plumbing system; Erosion of natural deposits.
Copper	2014	ppm	1.3	1.3	.0442	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.

2014 Radionuclides:

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Level Detected	Violation yes/no	Major Sources in Drinking Water
Combined Radium Radium 226 & 228	5/13/14	pCi/L	0	5	0.86 + or - 0.55	no	Erosion of natural deposits.

2014 Special Monitoring:

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.78	Erosion of natural deposits.
Strontium (ppm)*	n/a	n/a	94.2	Naturally present in the environment
Chromium (ppm)*	n/a	n/a	0.2	Naturally found in rocks, plants, soil and volcanic dust, and animals
Chromium (VI) (ppm)*	n/a	n/a	0.11	Erosion of natural chromium deposits
4-Androstene -3, 17-dione (ppm)*	n/a	n/a	0.0006	Steroidal hormone naturally produced in the human body

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

* In 2014, Shelby Township tested for this contaminant as part of the EPA's Unregulated Contaminant Monitoring Rule 3. Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring these helps the EPA determine where certain contaminants occur and whether they need to regulate those contaminants.



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

What is MISS DIG?

MISS DIG System, Inc. is the Utility Safety Notification System for the state of Michigan, and is a not-for-profit corporation made up by Member Facility Owners.



MISS DIG is a FREE service that homeowners and contractors use to notify facility owners of their intent to dig.



ITS THE LAW.


MISSION

The mission of MISS DIG System, Inc. is to safeguard the public, environment, property, and utility infrastructures and promote utility damage prevention through a quality, cost-effective process for our customers.

HOW TO PLACE A LOCATE REQUEST

Excavators, landscapers, farmers, homeowners and contractors can contact us 7 days a week, 24 hours a day!

You can place your FREE locate request via our web based application, [e-Locate](#), for a single address if you have a valid email. You will receive a confirmation email from MISS DIG along with general information pertaining to the excavation project.

-OR-
 by placing a toll free call to  or 800-482-7171

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

When to Place



According to Public Act 174 of 2013, an excavator shall provide a dig notice to the MISS DIG System at least 3 business days, but not more than 14 calendar days, before the start of any blasting or excavation.



"Blasting"

means changing the level or grade of land or rendering, tearing, demolishing, moving, or removing earth, rock, buildings, structures, or other masses or materials by seismic blasting or the detonation of dynamite or any other explosive agent.

"Excavation"

means moving, removing, or otherwise displacing earth, rock, or other material below existing surface grade with power tools or power equipment, including, but not limited to, grading, trenching, tiling, digging, drilling, boring, augering, tunneling, scraping, cable or pipe plowing, and pile driving; and wrecking, razing, rending, moving, or removing a structure or mass of materials.



BEFORE YOU DIG CONTACT MISS DIG- IT IS THE LAW!