



The Pipeline 2016

Water Quality Report

Published June 2016



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

Wow!... What a time to be in the water industry. The old Detroit Water and Sewerage Department hands over the reins to the Great Lakes Water Authority. This transfers the control of the suburban customers from the City of Detroit to the Authority. Continually changing technology has allowed us to interact with the residents easier through our new on-line payment program. And a thought on everybody's mind, the Flint Water Crisis.

In the 2016 edition of "The Pipeline" we address the safety and quality of your municipal drinking water. This issue 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 you all that we are making every effort to insure the safety and reliability of our water and sewer systems. 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

There is **NO** New Water!

In its purest form, it's odorless, nearly colorless and tasteless. It's in your body, the food you eat and the beverages you drink. You use it to clean yourself, your clothes, your dishes, your car and everything else around you. You can travel on it or jump in it to cool off on hot summer days. Many of the products that you use every day contain it or were manufactured using it. All forms of life need it, and if they don't get enough of it, they die. Political disputes have centered around it. In some places, it's treasured and incredibly difficult to get. In others, it's incredibly easy to get and then squandered. What substance is more necessary to our existence than any other? **Water!**

Most people are aware that quite literally, water is life, but globally 884,000,000 people lack a suitable water source. Water related disease is the largest cause of death

for children under 5 years old, worldwide. As the population of the world continues to rise so does the scarcity of a usable water supply.

How can this be true when everywhere we look we see water? Nearly 71% of the earth's surface is covered with water; proportionately that is very little water in comparison to the volume of the earth. The total water on earth can be contained within a sphere that is 860 miles in diameter (the distance from Salt Lake City, Utah to Topeka, Kansas). Of the total water on earth, only 2.5% is fresh water. 98.8% of the fresh water is located in ice (glaciers), in groundwater or in the atmosphere. This leaves less than 1% of the world's water supply available for use.

But the available domestic water supply is even smaller. It is estimated that 69% of the

fresh water supply is used for agricultural purposes, 22% is used for industry and approximately 1% for recreational and environmental uses. Throughout this quagmire of numbers and percentages the bottom line is that only 8/100ths of one percent of the world's water supply is available for domestic use.

So how does this affect us in Shelby Township, as we are nestled in the middle of the Great Lakes Basin, which contains 21% of the world's fresh water supply? When we get up in the morning, most of us brush our teeth, take a shower and make that first pot of coffee. We often take for granted that the water will come out of the taps for all these purposes, and more.



Fortunately, the availability of water in our area is not a major concern but the ability to distribute that water throughout the region in a manner that meets domestic, fire suppression and irrigation needs is a huge undertaking. Just as there is a finite amount of water on earth, there is also a limited amount of water that can be pumped safely through the distribution system at any given time. In 2015, our residents and businesses used approximately 2.9 billion gallons

of water, that's 104 gallons per day for each person in Shelby Township, making our consumption about 20% higher than the national average.

The majority of Shelby Township's water is supplied by the Great Lakes Water Authority via the Lake Huron treatment plant. To insure a reliable and adequate supply, Shelby is connected to the GLWA system by 6 meter pit connections throughout the Township.

Once the water enters Shelby Township, it is in the capable hands of our 22 maintenance and administrative employees. This includes 10 licensed distribution system operators who manage and maintain the various water mains and appurtenances necessary to deliver the water to the majority of residence and businesses within the community. For a majority of the time this is done without interruption to our normal routines.

On the rare occasion that the morning headline indicates that a major water main has broken or that a boil water alert has been implemented, we realize that what may be a potential health concern or at the least an inconvenience to us, is a normal way of life for many around the world.

The fact is that there is **NO NEW WATER**. The SAME water is continually being recycled all over the world. The water you used to make your morning coffee may have been consumed by a dinosaur 200 million years ago. It is up to us to utilize this finite water supply in a manner that insures that this life sustaining resource is available for future generations.



THE DEPARTMENT OF PUBLIC WORKS

The Shelby Township Department of Public Works is dedicated to maintaining a safe, potable water supply for domestic use and fire suppression while providing a quality of service above the expectations of our customers.

In doing so, our crew of trained individuals maintains an expansive infrastructure that provides water and sewer service to 25,400 households throughout the township. This includes over 375 miles of water mains and 180 miles of sanitary sewer mains. 3550 gate valves, 4500 fire hydrants, two pressure reducing vaults and a booster pump station.

In addition to maintaining the infrastructure, the department personnel are handling service calls for high and low water bills, final reads, meter testing and replacements, service line inspections, sidewalk concerns, storm sewer and drainage issues.

The DPW reads 30,500 meters quarterly then produces and mails over 120,000 bills and final notices per year. Payments are mailed to the DPW where they are processed and posted to the individual accounts.

If you have any questions, or if we can help you out in any way, please contact us at (586) 731-5990.

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.shelbytwp.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)



Water 101

Did you know that lawn irrigation is the largest residential water use, utilizing over 2 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 reduce these costs?

First, the Shelby Township Board of Trustees recognized the potential savings to customers with the adoption of the voluntary Odd/Even sprinkling ban ordinance. Homeowners with addresses ending in an even number should water on even number dates and homeowners with addresses ending in an odd number should water on odd numbered dates.

Second, we suggest that anyone who has water and sanitary sewer service to his or her home purchase

an Area Maintenance Meter. This eliminates sanitary sewer charges for lawn irrigation, which results in a cost savings to the homeowner.

Finally, most lawn irrigation is done between the hours of 5:00 a.m. – 9:00 a.m. and 5:00 p.m. – 9:00 p.m. This concentrated use of water causes a peak demand up to 5 times greater than the normal usage. This peak is a primary factor in the determination of future water rates.

As part of our contract with the Great Lakes Water Authority, water used between the hours of 12:00 midnight and 5:00 a.m. will not be factored 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.

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.

Paying Your Water Bill

ON LINE PAYMENTS

– SHELBY TOWNSHIP WEBSITE

You may now pay your water bill through Shelby's online service with Chase Bank's Pay Connexion™. Payments accepted are eChecks, Visa, Mastercard and Discover. The convenience fee for eChecks is \$1.00 and the fee for credit/debit cards is 2 ½% of the payment. Visit the DPW Department at www.shelbytwp.org to begin!

ON LINE PAYMENTS

– CUSTOMER'S BANK

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

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 and 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/money orders can be paid at the DPW at 6333 23 Mile and at the Treasurer's Department at 52700 Van Dyke

• Credit card/debit card payment can be made at the DPW using our countertop computer.

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.shelbytwp.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.

VIA PHONE

• Credit card payments (Visa, Discover, American Express) can be made by calling Official Payments at (800) 272-9829 or online at www.officialpayments.com. Use Jurisdiction Code 7006.
• A convenience fee of \$6.50 must be paid to Official Payments for this service.

DELIQUENT 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.



MOVING?

**Please contact the
Shelby Township DPW at
586-731-5990 Ext. 1853
or finalread@shelbytwp.org**

for a final bill. If our office is obtaining the read, we request 24-48 hours to obtain the read (from the outside of the home) and prepare a final read bill.

If a read is provided to us, the process can be expedited. The read needs to be the 6- digit read off the face of the meter (located in the home). Once the read is obtained, we will 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.

For additional information regarding final reads, please visit our Department of Public Works page at www.shelbytwp.org.



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

Electronics Recycling

Shelby Township, in conjunction with Green Tech Recyclers, offers a safe and secure electronics recycling program the last Saturday of each month, except December. This program is in effect for 2016. 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 (near the intersection of 24 Mile & Van Dyke).

There is a \$5.00 fee per car to drop off any electronics (one CRT TV or monitor is included in this fee). A charge of \$10.00 will apply to each additional CRT. One dollar (\$1.00) of the fee will go to the volunteer group working the event.

The following items will be accepted: flat screen TV's and monitors, computers, laptops, printers, fax machines, copiers, VCR's, keyboards & mice, DVD & CD players, microwaves, stereos, speakers, misc. cables, computer parts, cell phones, game consoles, handheld electronics, and holiday lights. To verify acceptable items, call 586-726-7272 or email DPW@Shelbytwp.org .



ELECTRONICS RECYCLING FUNDRAISING

Shelby Township, through the Solid Waste and Recycling Committee, offers fundraising opportunities for volunteer groups who work the events. The Committee looks for assistance from the organizations in marketing and advertising the 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: https://outreach.glwater.org//homer/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.shelbytwp.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.Shelbytpw.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 8, 2016 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.



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.

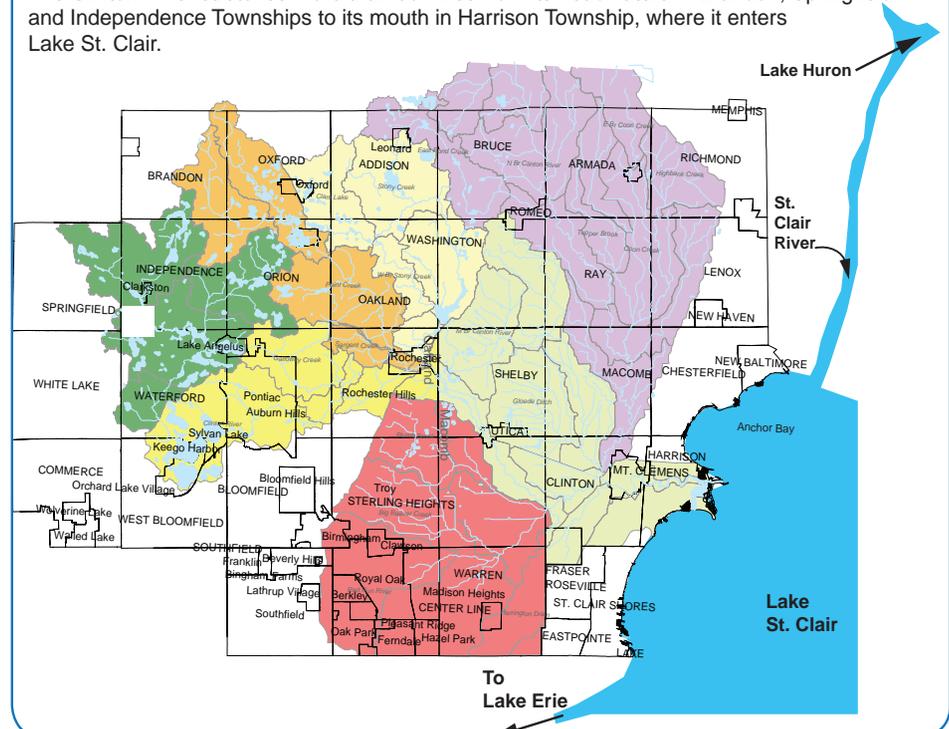
Under the National Pollutant Discharge Elimination System Phase II, communities in southeastern Michigan have banded together to plan for and accomplish storm water management.



Heritage Gardens at the Shelby Township Offices

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.



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.

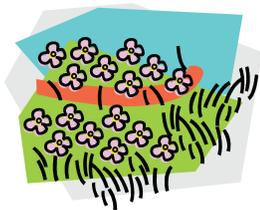


FERTILIZE CARINGLY AND SPARINGLY

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 Great Lakes Water Authority and is surface water from Lake Huron which has been treated at the 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).

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.



Beautiful Lilly Pads are abundant at Holland Ponds

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, 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.



Holland Ponds is home to a flourishing Heron population

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.

In 2015, DWSD received a grant from The Michigan Department of Environmental Quality to develop a source water protection program for the Lake Huron water treatment plant intake. The program includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential of source water protection area, management approaches for protection,

contingency plans, siting of new sources and public participation. If you would like to know more information about the Source Water Assessment report or a complete copy of this report please, contact your water department (586) 731-5990.

Safe Drinking Water is a Shared Responsibility

Drinking water quality is important to our community and the region. The Shelby Township Department of Public Works and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. Shelby Township Department of Public Works operates the system of water mains that carry this water to your home’s service line.

This year’s Water Quality Report highlights the performance of GLWA and Shelby Township Department of Public Works water professionals in delivering some of the nation’s best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water.

Shelby Township Department of Public Works and the Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. Please contact us with any questions or concerns about your water.



Water Testing

The Great Lakes Water Authority monitors for approximately 200 regulated and unregulated contaminants in drinking water, including pesticides and radioactive contaminants.

All monitoring data in this report is from 2015.

Water Quality Matters

We all play a role in maintaining the quality of our drinking water. The Great Lakes Water Authority, local municipalities and customers are connected through a complex water infrastructure system that is designed to protect public health.

The Great Lakes Water Authority operates five water treatment plants that treat water drawn from Lake Huron and the Detroit River to meet Safe Drinking Water Act requirements. Our commitment to deliver the best water quality possible is evident in our use of proven treatment techniques and a comprehensive monitoring program. We set target treatment standards that are stricter than state regulatory requirements and test more frequently during treatment.

The 126 communities that receive drinking water from Great Lakes Water Authority operate a local distribution system that includes a network of water mains, fire hydrants and sometimes booster stations and pressure reducing valves.

These communities keep water flowing through local piping at the right pressure, maintain pipes and valves, flush and maintain fire hydrants, monitor the distribution system for specific contaminants, and address customer concerns.

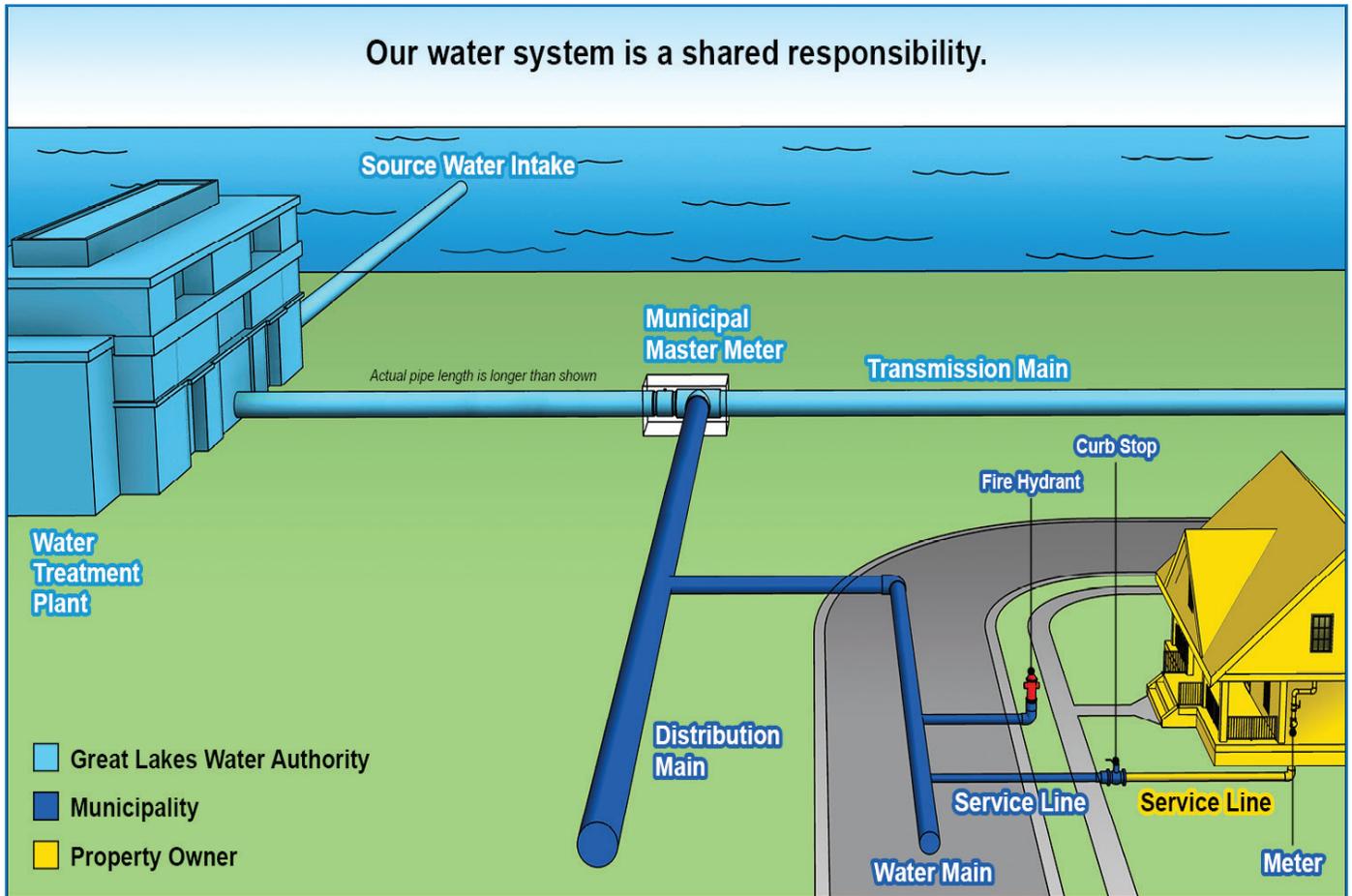
The nearly 4 million customers that receive GLWA water rely on this service each day to drink, cook, clean, flush toilets, wash clothes and water their lawns. Customers have a responsibility to maintain the plumbing in their homes and to follow steps to support good water quality. These steps include running water if it hasn't been used for a while, cleaning faucet aerators and shower heads, and flushing hot water heaters.

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



Our water system is a shared responsibility.



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

Safe drinking water is a shared responsibility.

The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business.

The Shelby Township Department of Public Works performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead.

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

MCL - Maximum Contaminant Level

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal

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

MRDL - Maximum Residual Disinfectant Level

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

n/a - Not Applicable

ND - Not Detected

NTU - Nephelometric Turbidity Units

Measures the cloudiness of water.

PCi/L - Picocuries Per Liter

A measure of radioactivity.

ppb - Parts per Billion (one in one billion)

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

ppm - Parts per Million (one in one million)

The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.

RAA - Running Annual Average

TT - Treatment Technique

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

TTHM - Total Trihalomethanes

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

µmhos

Measure of electrical conductance of water.

°C

A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.

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
2015 Regulated Detected Contaminants Tables**

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
Inorganic Chemicals – Monitoring at the Plant Finished Water Tap								
Fluoride	5/11/15	ppm	4	4	0.43	n/a	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	5/11/15	ppm	10	10	0.30	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								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2015	ppb	n/a	80	16.275	7.5-26	no	By-product of drinking water chlorination
Haloacetic Acids Five (HAA5)	2015	ppb	n/a	60	11.087	5.9-16	no	By-product of drinking water disinfection
Disinfectant Residuals Monitoring in DWSD Distribution System by Treatment Plant								
Regulated Contaminant	Test Date	Unit	Health Goal MRDGL	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2015	ppm	4	4	0.82	0.71-0.91	no	Water additive used to control microbes
Regulated Contaminant	Treatment Technique							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

2015 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
0.2 NTU	100%	no	Soil Runoff
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.			

2015 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.
<i>E.coli</i> Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E. coli</i> positive.		0	no	Human waste and animal fecal waste.

2014 Lead and Copper Monitoring at Customers' Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th 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.								
Regulated Contaminant	Treatment Technique							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 quarter and because the level was low, there is no requirement for TOC removal.							Erosion of natural deposits

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 and 228	5/13/2014	pCi/L	0	5	0.86 + or - 0.55	no	Erosion of natural deposits

2015 Special Monitoring

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	4.00	Erosion of natural deposits

Collection, sampling result information and table provided by GLWA 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

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!