

## 2017 WATER QUALITY REPORT FOR NILES TOWNSHIP

Last year, as in the past, your tap water met all EPA and State drinking water health standards. This brochure is a snapshot of the quality of the water that we provided to you in 2017. Included are details about where your water comes from, what it contains, and how it compares to EPA and state standards. We are committed to providing you with information because informed customers are our best allies.

Your water comes from three groundwater wells, each over 160 feet deep drawing water from the St. Joseph River watershed. We have had the wells delineated to show where the water has come from and will come from for a ten-year period of time. This is the area known as the wellhead protection area where we will strive to protect the water from contamination in order to provide safe drinking for the future. For anyone interested in seeing a map of this area you are welcome to come into our office to look at our map.

The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source is "moderately-high". If you would like to know more about the report please contact Dennis Haygood at the Niles Township Department of Public Works, 322 Bell Road, 684-5647 or email [dhaygood@nilestwpmi.gov](mailto:dhaygood@nilestwpmi.gov).

### **Contaminants and their presence in water:**

Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's **Safe Drinking Water Hotline (800-426-4791)**.

**Vulnerability of sub-populations:** Some people may be more vulnerable to contaminants in drinking water than 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 systems 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)**.

### **Sources of Drinking Water:**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. Our water comes from wells. As water travels over the surface of 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 and residential uses.

**Radioactive contaminants**, which are naturally occurring.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

# WATER QUALITY DATA

**Monitoring and Reporting Requirements:** The State of Michigan and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2017.

The table below lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 - December 31, 2017. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

**Terms & abbreviations used below:**

- **Maximum Contaminant Level Goal (MCLG):** the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Maximum Contaminant Level (MCL):** the highest level of contamination that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Action Level (AL):** the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **N/A:** not applicable - **ND:** not detectable at testing limits - **ppb:** parts per billion or micrograms per liter - **ppm:** parts per million or milligrams per liter - **pCi/l:** picocuries per liter (a measure of radioactivity).

Regulated Contaminants	MCL	MCLG	Highest Level Detected	Range	Sample Date	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	N/A	7.4	0 - 7.4	2016	No	erosion of natural deposits
Barium (ppb)	2	2000	73	0 - 73	2016	No	erosion of natural deposits
Selenium (ppb)	50	0	<2	0 - <2	2016	No	erosion of natural deposits
Nitrate (ppm)	10	0.1	0.2	<.01-0.2	2017	No	erosion of natural deposits
Nitrite (ppm)	1	0.01	<0.01	<0.01	2017	No	erosion of natural deposits
Fluoride (ppm)	4	0.1	0.1	<0.01-0.01	2017	No	erosion of natural deposits
Gross Alpha (pCi/l) Combined	15	3.0	0.24 ± 1.49		2016	No	naturally occurs in the environment
Radium (pCi/L)	5	1	1.90 ± 0.48		2016	No	naturally occurs in the environment

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Additional Monitoring And Unregulated Contaminants***	Range	Average	Sample Date	Typical source of contaminant
Chloride (ppm)	6.1 - 7.2	6.6	2013	erosion of natural deposits
Iron (ppm)	0.16 - 0.30	0.23	2014	erosion of natural deposits
Sodium (ppm)	4.5 - 6.4	5.45	2017	erosion of natural deposits
Calcium (ppm)	53 - 58	55.5	2014	erosion of natural deposits
Magnesium (ppm)	21 - 22	21.5	2014	erosion of natural deposits

\*\*\* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Contaminant Subject to AL	Action Level	90% of Samples $\leq$ This Level	Sample Date	Number of Samples Above AL	Typical source of contaminant
Lead (ppb)	15	0.6	2015	0	erosion of natural deposits and corrosion of household plumbing systems
Copper (ppb)	1300	17	2015	0	erosion of natural deposits and corrosion of household plumbing systems

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. Niles Charter 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 your drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/drink/info/lead>.

Microbial Contaminants ****	MCL	MCLG	Number Detected	Violation Yes / No	Typical source of Contaminant
Total Coliform Bacteria	No more than 1 positive monthly sample	0	0	No	Naturally present in the environment

**Note:** Niles Township water has a hardness of approximately 13 Grains per gallon.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen.

Please share this information with all the people who drink this water, especially those who may not receive this notice directly. You can do this by posting this notice in a public place or by distributing copies by hand or mail.

We invite public participation in decisions that affect drinking water quality at our regular Board meetings at 7:00 pm on the first and third Mondays of each month at the Township Hall meeting room. For more information about your water, or the contents of this report, contact Dennis Haygood at 684-5647. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

## **What is stormwater pollution and where does it come from?**

Actually, it comes from all of us. Even if we don't mean to, many of our everyday actions add to stormwater pollution. Stormwater picks up oil, metals and salts, pet waste, fertilizer, grass clippings and other materials left on sidewalks and streets before it enters a catch basin. In areas with stormwater sewer systems, this polluted runoff washes from the catch basins into the nearest lake or river without being treated. In areas without stormwater sewer systems the pollutants may invade your Drinking water, so remember –

**If you won't drink it, Don't dump it!**

### **5 SIMPLE WAYS YOU CAN HELP MICHIGAN RIVERS AND DRINKING WATER**

1. **Use a pooper scooper!** Bacteria, parasites and viruses from pet waste can easily wash into storm drains and end up in the river without being treated.
2. **Limit your pesticide and fertilizer use.** Pesticides are one of the biggest pollutants of all. Limit fertilizer use, and make it habit to sweep your grass clippings onto the lawn rather than into a catch basin.
3. **Check your vehicles for fuel and oil leaks.** When it rains, grease and oil drippings wash into storm drains, and go straight into our rivers and streams.
4. **Wash your car on the lawn or go to a car wash** (where the water goes to a wastewater treatment plant). Dirt and oils you wash off can harm fish and animals if it goes straight in the storm drain. Grass filters pollutants – and you'll water your lawn at the same time!
5. **Compost your yard waste.**  
<http://deq.state.mi/documents/deq-wmd-swp-compostbroch.pdf>

**Only Rain Down the Drain!** In other words, use trash cans! Even if it means a slight inconvenience for you, it's better off for everyone who shares Michigan rivers.

#### **DID YOU KNOW?**

Now, more than 60% of water pollution comes from things like cars leaking oil, failing septic tanks, and fertilizes from lawns, gardens and farms. All these sources add up to a big pollution problem. But each of us can do small things to help clean up our water too - and that adds up to a pollution solution!