

City of Northville

2015 Consumers Annual Report on Water Quality

What is the purpose of this report?

Northville Public Works Department wants you to know that your tap water is safe to drink and that it *meets or surpasses* all 2015 Federal and State monitoring and reporting standards for quality and safety.

The City of Northville's source water comes from the Detroit River, situated within Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River in the U.S., and parts of Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality, in partnership with the U. S. Geological Survey, the Detroit Water and Sewerage Department (now known as the Great Lakes Water Authority), and the Michigan Public Health Institute, performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination. *However, all four Detroit water treatment plants that use source water from Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.* DWSD has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. DWSD participates in a National Pollution Discharge Elimination System permit discharge program and has an emergency response management plan. If you would like to know more information about this report or for a complete copy of this report, please visit www.ci.northville.mi.us/services/publicworks or contact the Department of Public Works at 248-449-9930.

Who is responsible for safe drinking water?

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes Regulations, which limit the amount of specific contaminants in water provided by public water systems. In turn, the City annually tests the water to ensure the regulations are being met. Additionally, the Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

What do you mean by "contaminants"?

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. Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate them. Beginning in July 2008-April 2009, DWSD began monitoring for unregulated contaminants under the Unregulated Contaminant Monitoring Rule (UCMR2).

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- *Radioactive contaminants*, which are naturally occurring or the result of oil and gas production and mining activities.

"Northville's tap water meets or surpasses all 2015 Federal and State standards for quality and safety."

NORTHEAST AND SPRINGWELLS WATER TREATMENT PLANTS

2015 Regulated Detected Contaminants Tables

| Contaminant | Test Date | Units | Health Goal MCLG | Allowed Level MCL | Highest Level Detected | Range of Detection | Violation Yes/No | Major Sources in Drinking Water |
|---|--|--|--|----------------------|-------------------------|-------------------------|---------------------------------------|---|
| Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap | | | | | | | | |
| Fluoride | 5/11/2015 | ppm | 4 | 4 | 0.45 | n/a | NO | Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| Nitrate | 5/11/2015 | ppm | 10 | 10 | 0.33 | 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 Byproducts | | | | | | | | |
| Total Trihalomethanes (TTHM) ¹ | 2015 | ppb | n/a | 80 | Highest LRAA 33 | <0.50uq/L-.33uq/L | NO | By-product of drinking water chlorination |
| Haloacetic Acids (HAA5) ² | 2015 | ppb | n/a | 60 | Highest LRAA 7.2 | <1.0uq/L-7.2uq/L | NO | By-product of drinking water disinfection |
| Disinfectant Residuals - Monitoring in Distribution System by Treatment Plant | | | | | | | | |
| Disinfectant Chlorine residual | Jan-Dec 2015 | ppm | Health Goal MRDGL 4 | Allowed Level MRDL 4 | Highest RAA 0.74 | 0.66 - 0.79 | NO | Water additive used to control microbes |
| 2015 Turbidity – Monitored Every 4 hours at Plant Finished Water Tap | | | | | | | | |
| <i>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.</i> | | | | | | | | |
| 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 |
| 0.18 NTU | | 100% | | | | NO | | Soil Runoff |
| Microbiological Contaminants – Monthly Monitoring in Distribution System | | | | | | | | |
| Contaminant | MCLG | MCL | | | Highest Number Detected | Violation Yes/No | Major Sources in Drinking Water | |
| Total Coliform Bacteria | 0 | Presence of Coliform bacteria > 5% of monthly samples | | | in one month 0 | NO | Naturally present in the environment. | |
| <i>E.coli</i> or Fecal Coliform Bacteria | 0 | A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive. | | | entire year 0 | NO | Human waste and animal fecal waste. | |
| 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. | | | | | | | | |
| Symbol | Abbreviation | | Definition / Explanation | | | | | |
| MCLG | Maximum Contaminant Level Goal | | The level of contaminant in drinking water below which there is no known or expected risk to health. | | | | | |
| 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. | | | | | |
| MRDLG | Maximum Residual Disinfectant Level Goal | | The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. | | | | | |
| MRDL | Maximum Residual Disinfectant Level | | The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. | | | | | |
| 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. | | | | | |
| NTU | Nephelometric Turbidity Units | | Measures the cloudiness of water. | | | | | |
| ND | Not Detected | | | | | | | |
| TT | Treatment Technique | | A required process intended to reduce the level of a contaminant in drinking water. | | | | | |
| 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. | | | | | |
| °C | Celsius | | A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions. | | | | | |
| µmhos | Micromhos | | Measure of electrical conductance of water. | | | | | |
| TTHM | Total Trihalomethanes | | Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total. | | | | | |
| pCi/L | Picocuries Per Liter | | A measure of radioactivity. | | | | | |
| LRAA | Locational Running Annual Average | | | | | | | |
| RAA | Running Annual Average | | | | | | | |
| n/a | Not applicable | | | | | | | |
| > | Greater than | | | | | | | |

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

Is the water tested for lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Northville 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 at (800) 426-4791** or at <http://www.epa.gov/safewater/lead>

Other steps to take include:

- * Anytime your water has not been used for more than six hours, run your water for 30 seconds to two minutes.
- * Always use cold water for drinking, cooking, or making baby formula.
- * Use faucets and plumbing material that are either lead free or will not leach unsafe levels of lead into your water.

For more information call the **Safe Drinking Water Hotline at (800) 426-4791** or at www.epa.gov/safewater/lead

City of Northville Lead and Copper Testing

| Contaminant | Test Date | Units | Health Goal MCLG | Action Level AL | 90th Percentile Value* | Number of Samples Over AL | Violation Yes/No | Major Source In Drinking Water |
|-------------|-----------|-------|------------------|-----------------|------------------------|---------------------------|------------------|---|
| Lead | 2013 | ppb | 15 | 15 | 0.5 ppb | 0 | NO | Corrosion of household plumbing systems; erosion of natural deposits. |
| Copper | 2013 | ppb | 1300 | 1300 | 109 ppb | 0 | NO | Corrosion of household plumbing Systems; 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.

| 2015 SPECIAL MONITORING | | | | |
|-------------------------|------|-----|----------------|-----------------------------|
| Contaminant | MCLG | MCL | Level Detected | Source of Contamination |
| Sodium (ppm) | n/a | n/a | 4.74 | Erosion of natural deposits |

Should I be concerned about drinking the City's 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. However, 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 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 and potential health effects can be obtained by calling the Environmental Protection Agency's **Safe Drinking Water Hotline at (800) 426-4791**.

The Northville Department of Public Works will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at Northville City Hall, 215 W. Main Street, Northville, Michigan 48167 or at www.ci.northville.mi.us. The City of Northville invites public participation in decisions that affect drinking water quality. Please refer to the City's website, www.ci.northville.mi.us for meeting dates and agendas of the City Council.

For more information about your water, or the contents of this report, contact the Public Works Department at (248) 449-9930. For more information about safe drinking water, visit the U. S. Environmental Protection Agency at www.epa.gov/safewater.



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Concerns About Lead?

The United States Environmental Protection Agency (EPA) and the City of Northville are concerned about lead in your drinking water. Although most homes may have very low levels of lead in their drinking water, some homes in our community (mostly because of their age) may have lead levels above the EPA action level of 15 parts per billion (ppb). Under Federal law, we are required to have a program in place to minimize lead in your drinking water. Since 1996 the Detroit Water and Sewerage Department, now called the Great Lakes Water Authority, has provided corrosion control treatment for our drinking water, and whenever Northville DPW encounters a lead water service line to a home, we remove it and replace it with copper or plastic lines.

Keep in mind that elevated lead levels, if detected, are primarily from piping materials. This includes the service line to your home and all the plumbing in your home. Lead is colorless, odorless and tasteless. If you are interested in testing your water for lead, you can contact the Department of Public Works (248) 449-9930 to obtain a list of local labs who can do this for you for a fee.

The Michigan Department of Environmental Quality at (586) 753-3700, the Oakland County Health Division at (248) 858-1280, or Wayne County Health Department at (734) 727-7000 can provide you with information about the health effects of lead and how you can have your child's blood tested.

This notice is being sent to you by the City of Northville.

¹ TTHM, also known as total Trihalomethanes, are tested by collecting one sample for chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

² HAA5, also known as haloacetic acids, are tested by collecting one sample and testing that sample for monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, and monobromoacetic acid, and dibromoacetic acid.

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