

THE CITY OF NILES WATER DIVISION
333 NORTH SECOND STREET • NILES, MICHIGAN 49120



**IMPORTANT INFORMATION ABOUT YOUR DRINKING
WATER INSIDE.
THIS IS NOT JUNK MAIL
PLEASE READ**

The City of Niles Water Division A WATER QUALITY REPORT 2014 REVISED



General Facts about Niles Water

It is our goal to provide you with the best drinking water possible. Our test results verify we have achieved our goal. We have met the State of Michigan requirements. The information found in this report is representative of our source water, which is ground water. Within our water system there are seven wells available to provide water to the City, an Iron Filtration Plant, a Booster Pumping Station and five Elevated Storage Tanks. Your drinking water comes from the St. Joseph River Glacial Outwash Aquifer System.

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. The City of Niles 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 1-800-426-4791 or at <http://water.epa.gov/drink/info/lead>.

Source Water Assessment

In 2003, the State of Michigan completed a Source Water Assessment. Ground water susceptibility is determined in large part by the number and type of contamination sources within the Wellhead Protection Area (WHPA), with additional consideration to aspects of well construction and the chemical monitoring history of individual production wells. Information from the WHPA delineation for the seven production wells indicates the aquifer from which the City obtains groundwater is characterized as "leaky-confined". Leaky-confined aquifers possess a "moderate" geologic sensitivity.

The Contaminant Source Inventory, current as of October 2011, indicates several existing and potential sources of contamination. Potential sources of contamination include Underground Storage Tank (UST) sites; small and large quantity hazardous waste generators; a former City dump that is adjacent to the golf course; Michigan Baseline Environmental Assessment sites; groundwater discharge permit sites; former gas stations; agriculture sites and other industrial and agriculture sites.

The City of Niles seven production wells possess a "moderately high" susceptibility based on the above-mentioned geologic sensitivity analysis, listed potential contamination sources within the WHPA, and the following:

- No Maximum Contaminant Level (MCL) violations have occurred.
- The well construction meets standards.
- There are no potential contamination sources within the standard isolation zone.
- Our community has an active WHPA that supports management of existing or potential sources of contamination.
- Known sources of contamination within the WHPA are being remediated to prevent movement of contamination to municipal wells.

Unregulated Contaminants

We have conducted a sampling of unregulated contaminants. The USEPA has revised the federal regulations affecting the monitoring of unregulated contaminants within public water systems. The purpose of monitoring unregulated contaminants is to provide data to support the EPA Administrator's decisions concerning whether or not to regulate these contaminants in the future for the protection of public health. This basically lets the EPA know what is in drinking water and to what levels they appear.

With the completion of our Water Filtration Plant we are able to eliminate low levels of contaminants from the water. The results of this unregulated contaminant monitoring are available at the City of Niles Utilities Department, 333 N. Second Street. They are available through Mark Bachman, Operator-in-Charge. Please call 269-684-3901 for details.

Wellhead Protection Program

The City of Niles cares about the quality of water we provide. We are taking precautionary measures to ensure our source water does not become vulnerable to contamination. The Wellhead Protection Program was updated this year. This plan defines the recharge area. We have established goals to continue to protect our wellhead recharge area. There are Wellhead Protection Program signs located throughout the City of Niles. These signs indicate the groundwater capture areas, and inform citizens where accidental spills of dangerous chemicals, if left unattended, could contaminate our drinking water. For further information, please contact Mark Bachman, Operator-in-Charge, at 269-684-3901.



Contaminants Found in Untreated 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 the 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 (800-426-4791).

The sources of drinking water (both tap water and bottled) 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 might be expected to be in source water (untreated 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 storm water runoff and residential uses.
- 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 stormwater runoff and septic systems.

Distribution System

Our sole source of drinking water is ground water wells. We treat water differently in our water system. In the two east zones we add chlorine to prevent the growth of harmful water-borne bacteria, we add phosphate to sequester the iron that accumulates in the distribution system and we add fluoride to help reduce dental cavities in children. In the west zone we only add fluoride.

Every year we conduct cross connection inspections on commercial and industrial businesses to safeguard our water supply. It is important to observe how our water is used by our customers and to prevent backflow from back-siphonage and back pressure.

The City of Niles Water Division is operated by the City of Niles Utilities Department, a community-owned utility.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that the tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. EPA regulations establish limits for contamination in bottled water which must provide the same protection for public health.

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 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 the appropriate means to lessen the risk of infection by Cryptosporidium and microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or visiting their website at <http://www.epa.gov/safewater>.

We have tested for over 200 parameters regulated by the EPA and the State of Michigan. Included in these tests were metals, volatile organics, pesticides, herbicides, synthetic organic carbons and cyanide. Due to groundwater contamination contained in the upper aquifer, we are monitoring three wells on a quarterly basis to further safeguard our water supply.



The City of Niles provides water, wastewater and electric service to the greater Niles area, Bertrand Township, Niles Township and Howard Township. Our main office is located at 333 N. Second Street. Our mailing address is P.O. Box 217, Niles, MI 49120-0217. Our fax number is 269-683-3540. Visit our web site at www.ci.niles.mi.us. Jeff Dunlap is the Utilities Manager, 269-683-4700 extension 2070. Mark Bachman is the Operator-in-Charge at 269-684-3901. You may address any utility concern at our Utilities Board Meeting, which is open to the public. The meeting is held every third Monday of the month, at 5:00 PM, in the second floor City Hall Conference Room at 333 N. Second Street, Niles.



WATER QUALITY DATA

The table below lists the regulated and unregulated contaminants detected in Niles' drinking water during 2013 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, 2013. The State allows 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. All of the data is representative of the water quality, but, some are more than one year old.

Regulated at the Point of Entry (Well)

Regulated Contaminant	MCL	MCLG	LEVEL DETECTED	RANGE OF DETECTION	SAMPLE DATE	VIOLATION YES/NO	Source of Contamination
Arsenic (ppb)	10*	0*	0	0	8/7/2012	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste
Selenium (ppb)	50	50	0	0	8/7/2012	NO	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Barium (ppm)	2	2	0.07	0.04 - 0.07	8/7/2012	NO	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Nitrate (ppm)	10	10	1.1	0.0 - 1.1	8/6/2014	NO	Erosion of natural deposits; leaching from septic tanks and sewage; runoff from fertilizer
Fluoride (ppm)	4	4	1.30	0.69 - 1.3	8/6/2014	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Radioactive Contaminant	MCL	MCLG	LEVEL DETECTED	RANGE OF DETECTION	SAMPLE DATE	VIOLATION YES/NO	Source of Contamination
Alpha emitters (pci/l)	15	0	1.9	0.22 - 1.9	8/6/2013	NO	Erosion of natural deposits
Beta emitters (pci/l)	--	0	1.0	3.0 ± 1.0	8/6/2013	NO	Erosion of natural deposits
Combined radium (pci/l)	5	0	1.23	0.43 - 1.23	8/6/2013	NO	Erosion of natural deposits

Regulated at Customer's Tap

Special Monitoring and Unregulated Contaminant**	MRL	Average Level Detected	Range of Detection	Sample Date	VIOLATION YES/NO	Source of Contamination	
Sodium (ppm)	5	7	5 - 14	8/6/2014	NO	Erosion of natural deposits	
Strontium	0.3	84	75-91	10/7/2014	NO	Erosion of natural deposits	
Molybdenum	1	1	<1.0-2.2	10/7/2014	NO	Erosion of natural deposits	
Vanadium	0.2	0.35	<0.2 - 0.7	10/7/2014	NO	Erosion of natural deposits	
Dioxane	0.07	0.04	0 - 0.16	10/7/2014	NO	Leaching from septic tanks and sewage; runoff of area water sheds	
Contaminant Subject to All	Action Level	90% of Samples ≤ ppb	Range of Detection	Sample Date	Number of Samples Required	Source of Contamination	
Copper (ppm) - distribution	1300	140	16 - 530	8/8/2014	30	Corrosion of household plumbing systems.	
Lead (ppb) - distribution***	15	2.6	<1.0 - 7.5	8/8/2014	30	Corrosion of household plumbing systems.	
Distribution System	MRDL	MRDLG	Highest	Range of Detection	Annual Running Average	Violation (Yes/No)	Source of Contamination
Free Chlorine (ppm)	4	4	1.36	0.09 - 1.36	0.73	No	Water additive used to control microbes
Total Chlorine (ppm)	4	4	1.38	0.13 - 1.38	0.81	No	Water additive used to control microbes
Distribution System Disinfection By-Products	MRDL	MRDLG	Running Annual Average	Range of Detection	Date	Violation (Yes/No)	Source of Contamination
Total Trihalomethanes (TTHM)	80	N/A	0.0188	.0085 - .0188	8/6/2014	No	Drinking water disinfection byproduct
Total Haloacetic Acids (five)	60	Per Indv.	0.001	0.0 - 0.001	8/6/2014	No	Drinking water disinfection byproduct

DEFINITIONS

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
(MCL) - Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
(MCLG) - Maximum Contaminant Level Goal (MCLG) is 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.
(MRDL) - Maximum Residual Disinfectant Level is 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRL - Method Reporting Limit - The amount of contaminant present is less than the lab instrument used to measure it could detect.
ppm - Parts per million or 1 in 1,000,000
ppb - Parts per billion or 1 in 1,000,000,000
90th Percentile - 90 percent of the samples were below the number listed. (Copper = .29 ppm; Lead = 1.00 ppb)
N/A - Not Applicable
***** - These arsenic values after January 23, 2006, are 10 parts per billion.
****** - 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.
******* - Infants and children who drink water containing lead, in excess of the action level, could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, flush your tap for 30 seconds to 2 minutes before using tap water. You may wish to have your water tested. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791. 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.

The Michigan Department of Environmental Quality allows us to monitor on a three-year cycle. This means that three of nine wells are monitored, once in three years, for limited metals and volatile organics. The City conducted contaminant sampling in 2003 and UCMR2 sampling in 2009. The first portion of UCMR3 sampling was performed in April of 2014 and the second set of sampling was completed in October of 2014. Please contact City Hall at 269-683-4700, if you wish to have a copy of the results.