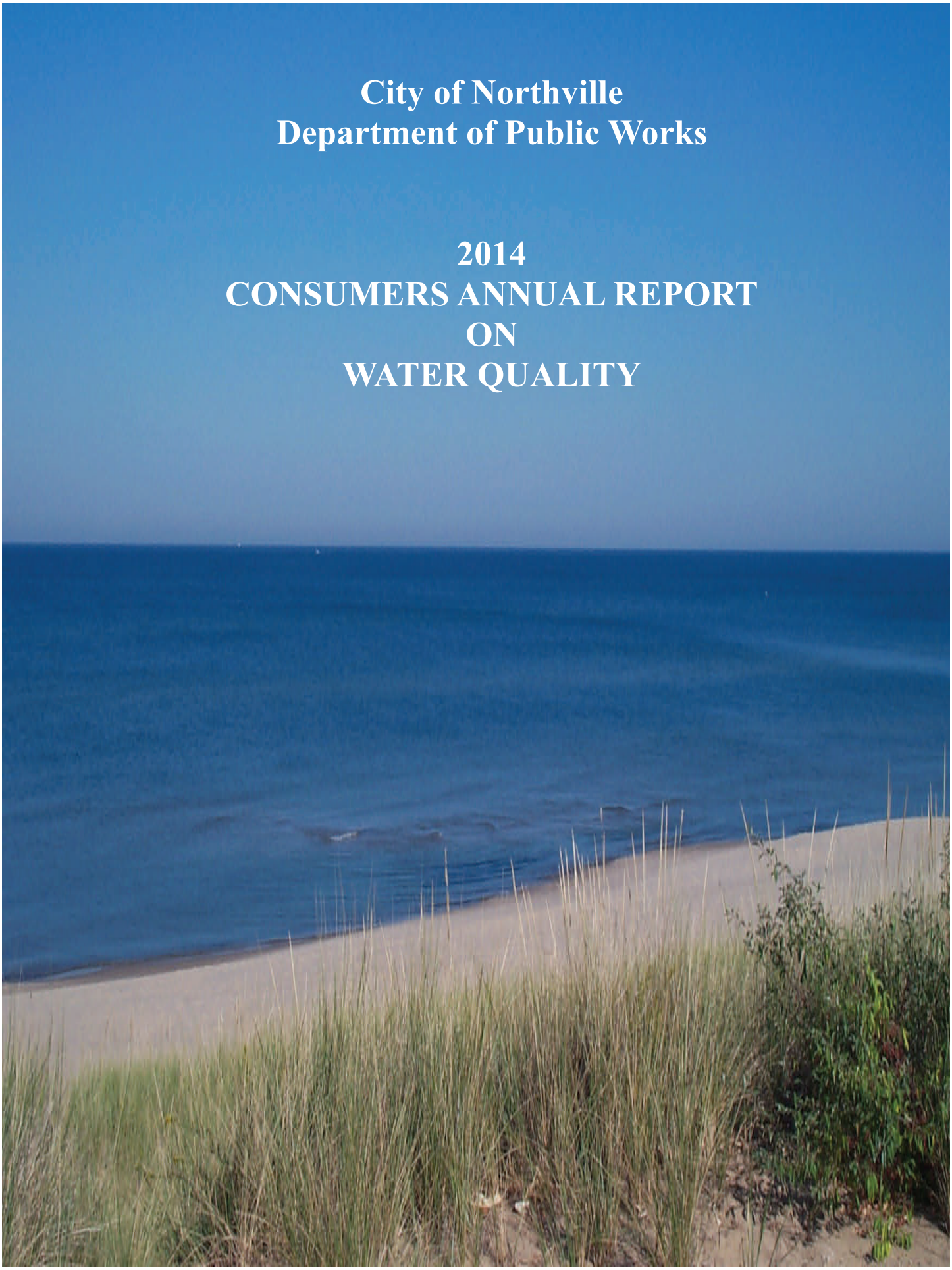
City of Northville
Department of Public Works

2014
CONSUMERS ANNUAL REPORT
ON
WATER QUALITY



City of Northville
2014 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 2014 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, 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 2014 Federal and State standards for quality and safety."

NORTHEAST AND SPRINGWELLS WATER TREATMENT PLANTS

2014 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	5/13/2014	ppm	4	4	.64	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	0.39	n/a	**NO**	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium	6/9/2008	ppm	2	2	.01	n/a	**NO**	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium	6/9/2008	ppm	50	50	1.0	n/a	**NO**	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Disinfection By-Products – Monitoring in Distribution System Stage 2								
Total Trihalomethanes (TTHM)	2013	ppb	n/a	80		See page 5		By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2013	ppb	n/a	60		See page 5		By-product of drinking water disinfection
Disinfectant Residual - Monitoring in Distribution System								
Disinfectant Chlorine residual	2014	ppm	MRDGL 4	MRDL 4	0.70	0.64 - 0.74	**NO**	Water additive used to control microbes

Turbidity – Monitored Every 4 hours at Plant Finished Water Tap

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.

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
0.59 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.
E.coli or Fecal Coliform Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli 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.
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. Picocurie (pCi) means the quantity of radioactive material producing 2.22 nuclear transformations per minute.
LRAA	Local Running Annual Average	
n/a	Not applicable	
>	Greater than	
RAA	Running Annual Average	

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	0	15	.0010 ppb	0	NO	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	2013	ppb	1.3	1.3	.15 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.

2014 SPECIAL MONITORING				
Contaminant	**MCLG**	**MCL**	**Level Detected**	**Source of Contamination**
Sodium (ppm)	n/a	n/a	5.15	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.

Monitoring Requirements Not Met for City of Northville

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During July, 2014, we did not monitor or test for Disinfectants or Disinfection Byproducts (DDBP's) and, therefore, cannot be sure of the quality of our drinking water during that time.

What Should I Do?
There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time.

The table below lists the contaminants and how many samples we did not properly test for during July, 2014, how often we are supposed to sample for these contaminants and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we will collect follow-up samples.

Contaminant	Required Sampling Frequency	Number of samples taken	When all samples should have been taken	Date additional samples will be taken
TTHM[1]	1 sample per year	0	July 1, 2014 to July 31, 2014	September 2014 to July 2015
HAA5[2]	1 sample per year	0	July 1, 2014 to July 31, 2014	September 2014 to July 2015

What Happened? What is Being Done?

Sampling for TTHM and HAA5 did not occur in July 2014 due to an oversight in the sampling schedule. Samples were taken in September 2014, the results were within the acceptable range. The City of Northville has not taken a sample in the past that was outside the acceptable range for these two contaminants.

The testing schedule and procedure has been reviewed with employees charged with sampling to ensure timely samples are taken in the future.

For more information, please contact Mr. James Gallogly at 248-449-9930.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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 and testing that sample for chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

[2] HAA5, also know 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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