City of Big Rapids Water Quality Report

April 2015

Why Do You Get This Report?

The Environmental Protection Agency (EPA) requires every community water supply throughout the United States to report specific details regarding water quality along with any contaminants which may be found in our tap water and source water. This report identifies our source water and the results of our January – December 2014 water tests. In order to ensure this information reaches all of our customers, the EPA requires this report be made available to each household and business we supply at the City link http://cityofbr.org/water/forms/Water Quality Report.pdf. A copy of this 2015 Consumer Confidence Report will be mailed to anyone by calling Carmen Johnson at 231-796-6231 and requesting one.

Do I Need To Take Special Precautions?

The EPA sets legal limits and regulates the amount of contaminants allowed in drinking water provided by all public water systems. Sources of drinking water worldwide (both tap and bottled) may reasonably be expected to contain at least small amounts of some contaminants. Though contaminants are present, it does not necessarily indicate that the water poses any kind of health risk. We treat our water according to EPA regulations.

While EPA's health-based standard for drinking water are generally safe, some people may be more sensitive to contaminants in drinking water than the general population. Some infants, children or elderly, individuals who have undergone organ transplants, people with HIV/AIDS or persons receiving chemotherapy can be at risk for infections. These people should seek advice from their health care providers. More information on potential health effects of specific contaminants can be obtained by contacting the EPA's Safe Drinking Water hotline at 1(800)426-4791 or at their website at http:www.epa.gov/safewater/dwhealth.html.

About 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 though the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or 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, 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 storm water runoff and septic systems; and Radioactive contaminates which can be naturally-occurring or be the result of oil and gas production and mining activities.

Lead and Drinking Water

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 Big Rapids 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 for the Safe Drinking Water Hotline at 1-800-426-4791 or at http://water.epa.gov/drink/info/lead/index.cfm.

Source Water Assessment

The Big Rapids water supply system provides residents of the City of Big Rapids and parts of Big Rapids Township with high-quality drinking water, drawn from four groundwater wells at Roben-Hood Airport. Big Rapids has initiated a Wellhead Protection Program to study the quality of our groundwater and the steps we as a community can take to protect it.

In addition, the Michigan Department of Environmental Quality recently performed a Source Water Assessment (SWA) of the Big Rapids water system; our source water susceptibility to contamination was determined to be "moderate".

A copy of both the Wellhead Protection Plan and the Source Water Assessment can be viewed at City Hall, Department of Public Works, 226 N. Michigan. Or call Public Works Director Mark Gifford at (231) 592-4018.

If you are interested in learning more about the water department and water quality, contact Water Plant Superintendent Carmen Johnson at (231) 796-6231. Should you seek more information about our water supply, the City Commission meets the first and third Mondays of each month at 7:30 pm in Big Rapids City Hall.

	Test Date	Violation (Y/N)	Level Detected	Unit of Meas.	MCLG	MCL	Likely Source of Contamination
Regulated Contaminates							
Microbiological Contaminants							
Turbidity	2014	N	Max: 0.07 NTU Lowest Monthly Average meeting limits = 100%	NTU	0	1 NTU: 99% of samples less than 0.3 NTU	Soil runoff
Total Coliform Bacterial	2014	N	0		0	> 1 Positive Monthly sample (5% of monthly samples Positive	Naturally present in environment
Radioactive Contaminants							
Gross Alpha	2014	N	0.25 ± 0.65	pCi/L	0	15 pCi/L	Decay of uranium and thorium
Radium 226	2014	N	0.10 ± 0.05	pCi/L	0	5 pCi/L	Decay of uranium and thorium
Radium 228	2014	N	0.11 ± 0.41	pCi/L	0	5 pCi/L	Decay of uranium and thorium
Inorganic Contaminants							
Arsenic	2011	N	0	ppb	0	10	Erosion of natural deposits: run off from orchards, glass, & electronic production waste
Barium	2008	N	0.3	ppm	2	2	By-product of drilling waste, discharge from metal refineries, erosion of natural deposits
Chlorine	2014	N	Highest Monthly AVE. = 1.5 Range: 1.1 to 1.8	ppm	MRDLG equals 4	MRDL=4	Water additive to control microbes
Copper 90th Percentile	2014	N	0.347 ppm (90th Percentile) 0 sites exceed the AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	2014	N	0.61	ppm	4	4	Additive that promotes strong teeth, erosion of natural deposits
Lead 90th percentile	2014	N	0.0 ppb (90th Percentile) 1 site exceeded the AL	ppb	0	AL=5	Corrosion of household plumbing systems, erosion of natural deposits
Volatile Organic Contaminants							
Haloacetic Acids (HAAS)	2014	N	2	ppb	n/a	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2014	N	7.4	ppb	n/a	80	By-product of drinking water disinfection
Unregulated Contaminants / Water Characteristics							
Chloride	2014	N	Not Detected	ppm	n/a	250	Salt, naturally present
Hardness as CaCo3	2014	N	167	ppm	n/a	n/a	Naturally occurring minerals, controlled by water treatment process
Iron	2014	N	Highest Monthly AVE. = 20 Range: 0.0 to 70	ppb	n/a	300	Naturally present in environment
Manganese	2014	N	Highest Monthly AVE. = 19 Range: 2 to 90	ppb	n/a	50	Naturally present in environment
Sodium	2014	N	Not Detected	ppm	n/a	n/a	Naturally present in environment

Key

MRDL Maximum Residual Disinfection Level - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG Maximum Residual Disinfection Level Goal - The level of 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 contamination.

MCLG Maximum Contaminant Level Goal - The level of a substance below which there is no known or expected risk to human health.

AL Action Level - The amount of a substance when exceeded requires a treatment change or other response by a water system.

n/a Not applicable

n.d. Not detected

MCL Maximum Contaminant Level - This is the highest level of a substance allowed in drinking water.

NTU Nephelometric Turbidity Units - Measurements of the minute suspended particles in the water. Used to judge water clarity.

ppm Parts Per Million - You win one million dollars in the lottery. You give a friend on dollar. That's 1 ppm.

ppb Parts Per Billion - You inherit $10 million dollars. When counting it you discover that one cent is missing. That is 1 ppb.

TT Treatment Technique - A required process intended to

NR Reduce the level of a substance in drinking water. Monitoring not required, but recommended.

MNR Monitored Not Regulated

MPL State Assigned Maximum Permissible Level