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The Gateway of Michigan

New Buffalo Township Water Department Water Quality Report 2022

This past year, as in all past years your drinking water has met all EPA and State drinking water standards. Everyday New Buffalo Township strives to provide their Township water customers with the safest drinking water possible. This report will show that we have been meeting those goals. The Township purchases its drinking water from Michigan City, Indiana. We also pump City of New Buffalo water into our system for use at the Four Winds Casino. Both communities use Lake Michigan as their water source.

Source Assessment

Because our water source is Lake Michigan, the State of Michigan has performed an assessment to determine how susceptible that source would be to contamination. Because of the “open” source that it is, it rated at “moderately high” level. It is important that you know both Michigan City and the City of New Buffalo sample and test their respective waters 365 days a year. New Buffalo Township is also required by EGLE and the EPA to take various samples on a regular basis. This is a combined effort to make sure your drinking water is safe. New Buffalo Township feels very confident with our source suppliers. This report includes both Water Quality Data sheets from our two suppliers.

Health and Safety

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).

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.

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

To ensure that the tap water is safe to drink, EPA prescribes regulations which limit the number 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 appropriate means to lessen the risk of infection by *Cryptosporidium* and microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791) or visit (www.epa.gov/ogwdw).

Information about Lead: 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. Infants and children who drink water containing lead 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. New Buffalo 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 and 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, 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

If you have any questions regarding this report or any questions regarding your water utility you may attend any New Buffalo Township Board meeting or contact Alex Keen, Water Superintendent, at 269-231-5250 or email akeen@newbuffalotownship.org. Board meetings are scheduled on the 3rd Monday of every month at the Township Hall at 17425 Red Arrow Highway.

New Buffalo Township Water Quality Analysis

The Table below list all the EPA regulated contaminants detected in the Townships drinking water during 2022. All contaminants detected were below allowable limits.

Distribution system							
Substance	MRDL	MRDLG	Annual Running Average	Highest	Range of Detection	Violation Yes/No	Sources of Substance
Free Chlorine Residual	4.0	4.0	0.69	0.78	.65-.78	no	Water additive used
Total Chlorine Residual	4.0	4.0	0.88	1.00	.82-1.00	no	Water additive used

Additional Distribution						
Substance	MRDL	Annual Running Average	Highest single sample	Range of Detection	Violation Yes/No	Sources of Substance
Total Trihalomethanes	80	56.7	56.7	56.7 (single sample)	no	By-Product of Disinfection
Total Haloacetic Acids	60	<2.0	<2.0	<2.0 (single sample)	no	By-Product of Disinfection

Per-and Polyfluoroalkyl substances (PFAS)							
Regulated Substance	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	N/D	N/A	2022	No	Discharge and waste from industrial facilities utilizing Gen X chemical process.
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	N/D	N/A	2022	No	Discharge and waste from industrial facilities; Stain resistant treatments.
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	N/D	N/A	2022	No	Firefighting foam; Discharge and waste from industrial facilities.
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	N/D	N/A	2022	No	Firefighting foam; Discharge and waste from industrial facilities.
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	N/D	N/A	2022	No	Discharge and waste from industrial facilities; breakdown of precursor compounds.
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	N/D	N/A	2022	No	Firefighting foam; Discharge from electroplating facilities; Discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	N/D	N/A	2022	No	Discharge and waste from industrial facilities; Stain resistant treatments.

Regulated at Customers Tap						
Substance	EPA's Action Level	EPA's MCLG	90th percentile detected	Range of Results	Number of Samples Above AL	Typical Source of Contaminant
Copper* (ppb)	1300	1300	2	0-3	0	Corrosion of household plumbing
Lead* (ppb)	15	0	0.2	0.0-1.1	0	Corrosion of household plumbing

*Lead & Copper- some monitoring is done less than once a year. Lead & Copper results were from 2022, our next sampling cycle will be 2025.

WATER QUALITY DATA

The table below lists the EPA's regulated and unregulated contaminants detected in The City of New Buffalo's drinking water during 2022. Unless otherwise noted, the data presented is from January 1, 2022 to December 31, 2022.

Regulated Monitoring (Sampled at Water Filtration Plant)						
Detected Substance (units)	Highest Level Detected	Range Of Detects	EPA's MCL	EPA's MCLG's	Violation Yes / No	Likely Sources of Substance
Turbidity (ntu)	0.18	0.02-0.18	0.3 or no sample above 1.00	N/A	No	Soil Runoff
Chlorine Residual - Free (ppm)	1.61	1.00-1.61	4.0	4.0	No	Water additive used to control microbes
Fluoride (ppm)	0.77	0.77 (Single Sample)	4.0	4.0	No	Water Additive Which Promotes Strong Teeth; Erosion of Natural Deposits
Radioactive Contaminants						
Radium (combined 226/228) (pCi/L) Sample Date - 8/14/2020	1.32	1.32	5	0	NO	Erosion of natural deposits
Regulated Monitoring for Disinfection By-Product Rule (Sampled in Water Distribution System)						
Detected Substance (units)	Highest Running Annual Average	Range Of Detects	EPA'S MCL	EPA'S MCLG	Violation Yes / NO	Likely Source of Substance
THM (Total Trihalo-methanes) (ppb)	29	29 (Single Sample)	80.0	N/A	No	By-Product of Drinking Water Chlorination
HAA5 (Total Haloacetic Acids) (ppb)	23	23 (Single Sample)	60.0	N/A	No	By-Product of Drinking Water Chlorination
Additional Regulated Monitoring (Sampled in Water Distribution System)						
Detected Substance (units)	Highest Running Annual Average	Range Of Detects	MRDL	MRDLG	Violation Yes / No	Likely Source of Substance
Total Chlorine Residual (ppm)	0.77	0.53-1.18	4.0	4.0	No	Water Additive Used For Disinfection

Note 1: Definitions are on page 6.

Note 2: The EPA requires monitoring over 80 drinking water contaminants. Those listed above are only those contaminants detected in your drinking water. For a complete list contact the Water Filtration Plant.

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Regulated Lead and Copper Monitoring (Sampled at Customer's Tap - 2021)						
Detected Substance (units)	90 th Percentile Detected	Sites Found Above AL	EPA's AL	EPA's MCLG	Violation Yes / NO	Likely Source of Substance
** Copper (ppb)	100	0	1300	1300	No	Corrosion of Household Plumbing
** Lead (ppb)	3	0	15	0	No	Corrosion of Household Plumbing
Special Unregulated Monitoring (Sampled at Water Filtration Plant)						
Detected Substance (units)	Highest Level Detected	Likely Source of Substance				
Sodium (ppm)	8.9 (Single Sample)	Erosion of Natural Deposits				
Additional Unregulated Monitoring (Sampled at Water Filtration Plant)						
Detected Substance (units)	Highest Level Detected	Likely Source of Substance				
Hardness as CaCO ₃ (ppm)	134 (Single Sample)	Erosion of Natural Deposits				
Sulfate (ppm)	34 (Single Sample)	Erosion of Natural Deposits				
PH (ph units)	7.6	Measurement of Acidity of Water				
Chloride (ppm)	19 (Single Sample)	Erosion of Natural Deposits				

Per- and polyfluoroalkyl substances (PFAS) - Sampled at Water Filtration Plant							
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Dates Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	N/D	N/A	1/26/22 - 6/8/22- 8/1/22- 12/14/22	NO	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	N/D	N/A	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	N/D	N/A	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	N/D	N/A	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	N/D	N/A	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	N.D. N/D 2 2	N/A N/A 2 2	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	3 2 2 2	3 2 2 2	1/26/22- 6/8/22- 8/1/22- 12/14/22	NO	Discharge and waste from industrial facilities; stain-resistant treatments

Note 1: Definitions are on page 6.

Note 2: The EPA requires monitoring over 80 drinking water contaminants. Those listed above are only those contaminants detected in your drinking water. For a complete list contact the Water Filtration Plant.

Water Quality Analysis

The chart that follows the definitions lists the highest recorded level in Michigan City in 2022 and the highest allowed by the USEPA. Michigan City water has met all EPA requirements.

Definitions

MCL: Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water, if applicable.

MCLG: Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health, if applicable.

MRDL: Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.

MRDLG: Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected risk to health.

AL: Action level, the concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

TT: Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

NTU: Nephelometric Turbidity Unit, is the measure of clarity of the water

mg/l: milligrams per liter, a measurement for concentration equivalent to ppm = one part per million

ug/l: micrograms per liter, measurement for concentration equivalent to ppb = one part per billion

pCi/l: picocuries per liter, a measurement of radiation

P*: Potential violation, one that is likely to occur in the near future, subject to other applicable requirements.

ND: Not detected, the result was not detected at or below the analytical method detection level.

TT:** **Special Note on Turbidity:** The turbidity treatment technique (TT) requires that at least 95% of the total combined effluent turbidity samples shall not exceed 0.3 NTU (1.0 NTU for slow sand and diatomaceous earth filtration systems). At least 95% is required to be in compliance. In addition, the maximum turbidity level cannot exceed 1.0 NTU at any time.

Date	Contaminant	MCL	MCLG	Unit	Result	Min	Max	Sites over AL	Violation	Likely Sources
2022	Barium	2	2	mg/L	0.021	0.021	0.021		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2022	Fluoride	4	4	mg/L	0.78	0.78	0.78		No	Water additive that promotes strong teeth; Erosion of natural deposits; Discharges from fertilizer and aluminum factories.
2022	Nitrate-Nitrite (as N)	10	10	mg/L	0.41	0.41	0.41		No	Erosion of natural deposits; Runoff from fertilizers; Leaching from septic systems and sewers.
2022	Sodium	N/A	N/A	mg/L	8.9				No	Metals; Erosion of natural deposits.
2022	Chromium	100	100	ug/L	0.94	0.94	0.94		No	Byproduct of drinking water chlorination
2022	Total Trihalomethanes	80	0	ug/L	12	5.9	17.4		No	Byproduct of drinking water chlorination
2022	Total Haloacetic Acids	60	0	ug/L	1	0	3.7		No	Byproduct of drinking water chlorination
2022	Chloramines	MRDL = 4	MRDLG = 4	mg/L	1	1	1		No	Water additive used to control microbes
2022	Total Organic Carbon	TT	TT	mg/L	1.34	0.684	1.55		No	Naturally present in the environment
2022	Turbidity (lowest percentage)	TT**	TT**	%	96.7%	96.7%	100%		No	Soil runoff
2022	Turbidity (Maximum level)	1	1	NTU	1.00	0.03	1.00		No	Soil runoff
Valid until 12/31/2023	Lead (90th percentile)	15 (AL)	0	ug/L	3	ND	9.1	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Valid until 12/31/2023	Copper (90th percentile)	1.3 (AL)	1.3	mg/L	0.23	ND	1.17	0	No	Erosion of natural deposits; Corrosion of household plumbing systems; Leaching from wood preservatives

DEFINITIONS

Maximum Residual Disinfection Level (MRDL) - 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.

Maximum Residual Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

AL (action level) — The concentration of a contaminant which, if exceed, 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.

NTU - Nephelometric Turbidity Units ppb

PPM - Parts per million

PPB - Parts per Billion

MG/L-milligrams per liter

UG/L-micrograms per liter

pCi/L –picocuries per liter

TT - Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminants - Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of the unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

90th Percentile - 90 percent of the samples were below the number listed.

N/A - Not applicable.

N/D – None Detected

Turbidity- Turbidity is a measurement of the cloudiness of the water.

RAA- Running Annual Average.

***Lead & Copper**- the state allows us to monitor for these substances less than once per year, so some data may be more than 1 year old, current results were collected from 1/1/2019 thru 12/30/2019. Infants and children who drink water containing lead higher than action levels 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.

Attention New Buffalo Township Water Customers

Your 2021 Consumer Confidence Report may be
picked up the New Buffalo Township Hall,
copies will not be mailed.