

## *New Buffalo Township Water Department Water Quality Report 2017*

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 the Michigan DEQ 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 affects 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.

- 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](http://www.epa.gov/ogwdw)).

**Effects of Lead in 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. 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 Archie Barkman, Water Superintendent, at 269-231-5250 or email [abarkman@newbuffalotownship.org](mailto:abarkman@newbuffalotownship.org). Board meetings are scheduled on the 3<sup>rd</sup> Monday of every month at the Township Hall at 17425 Red Arrow Highway.

## New Buffalo Townships Water Quality Analysis

The table below list all the EPA regulated contaminants detected in the Townships drinking water during 2017. **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	1.07	0-1.07	no	Water additive used for disinfection
Total Chlorine Residual	4.0	4.0	0.82	1.23	0-1.23	no	Water additive used for disinfection

Additional Distribution						
Substance	MRDL	Annual Running Average	Highest single sample	Range of Detection	Violation Yes/No	Sources of Substance
Total Trihalomethanes	80	43.65	49.00	38.3-49.0	no	By-Product of Disinfection
Total Haloacetic Acids	60	9.75	11.70	7.8-11.7	no	By-Product of Disinfection

Regulated at Customers Tap				
Substance	Action Level	90th Percentile Detected	Number of Samples Above AL	Sources of Substance
Copper*	1300 ppb	230ppb	0	Corrosion of household plumbing
Lead*	15 ppb	1.6 ppb	0	Corrosion of household plumbing

\*Lead & Copper- some monitoring is done less than once a year. Lead & Copper results were from 1/1/2016 thru 12/30/2016, our next sampling cycle will be 2019.

Below list the EPA's regulated and unregulated contaminants detected in the City of New Buffalo's drinking water during 2017. Unless otherwise noted, the data presented is from January 1, 2017 to December 31, 2017.

Detected Substance (units)	Highest Level Detected	Range of Detects	Range of Detects	Range of Detects	Range of Detects	Range of Detects
<b>Regulated Monitoring (Sample taken at Water Treatment Plant)</b>						
*Turbidity	0.12	.02-.12	.3*-no sample over 1.00	N/A	No	Soil Runoff
Chlorine Residual/Free (ppm)	1.77	0.8	.80-1.77	4.0	No	Water additive to control microbes
Fluoride (ppm)	0.68	0.68 single sample	4.0	4.0	No	Water additive which promotes strong teeth; Erosion of Natural Deposits
<b>Regulated Monitoring (Sampled in Water Distribution System)</b>						
TTHM (Total Trihalomethanes) (ppb)	44 (Highest Running Annual Average)	44 (Single Sample)	80.0	N/A	No	By-product of Drinking Water Chlorination
HAA5 ( Total Haloacetic Acids) (ppb)	25 (Highest Running Annual Average)	25 (Single Sample)	60.0	N/A	No	By-product of Drinking Water Chlorination
Total Chlorine Residual	0.80 Highest Annual Running Average	0.30-1.22	4 (MRDL)	4 (MRDLG)	No	Water additive to control microbes
<b>Unregulated Monitoring (Sampled at Water Treatment Plant)</b>						
Sodium (ppm)	7.0					Erosion of Natural Deposits
Hardness as CaCO3 (ppm)	160.0					Erosion of Natural Deposits
Sulfate (ppm)	29.0					Erosion of Natural Deposits
PH (ph units)	7.6					Measurement of Acidity
Chloride (ppm)	15.0					Erosion of Natural Deposits
<b>Lead and Copper Monitoring (Sampled at Customer's Tap - 2015)</b>						
Detected Substance (units)	90th Percentile Detected	Sites Found Above AL	EPA's AL	EPA's MCLG's	Violation Yes/No	Likely Sources of Substance
**Copper (ppb)	140.0	0.0	1300.0	1300.0	No	Corrosion Household Plumbing
** Lead (ppb)	7.4	1.0	15.0	0.0	No	Corrosion Household Plumbing

**Unregulated Contaminants**, are those for which the EPA has not established drinking water standards. The purpose of this monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water.

**\*Turbidity**-measurement of the cloudiness of the water. 100% of our samples met the required limits of less than or equal to 0.30 NTU in 95% of samples taken monthly and shall not exceed 1.0 NTU at any time.

**\*\* Lead & Copper**- Per State requirement these contaminants are monitored less than once per year because these concentrations do not change frequently. Some of this data, though representative, may be more than one year old.

Copper/Lead samples were collected on 6-3-15 through 6-10-15

**90th Percentile**- 90% of samples taken were below numbers listed, (Copper /140 ppb), (Lead/7.4 ppb)

### Michigan City Water Quality Analysis

The following chart list the highest recorded level in Michigan City in 2017 and the highest allowed by the USEPA.  
Michigan City water **HAS** met all EPA requirements.

Date	Contaminate	MCL	MCLG	UNIT	Result	MIN	MAX	Above AI # Repeats	Violates	Likely Sources
10/19/17	Barium	2	2	mg/l	0.017	0.017	0.017		No	Discharge of drilling waste; Discharge from Metal Refineries; Erosion of natural deposits
Valid until 12/31/2020	Lead (90th percentile)	15	0	ug/l	6	ND	11	0	No	Corrosion of household plumbing systems. Erosion of natural deposits
Valid until 12/31/2020	Copper (90th percentile)	1.3	1.3	mg/l	0.33	ND	0.78		No	Erosion of natural deposits; Corrosion of household plumbing systems; Leaching from wood preservatives
2017	Flouride	4	4	mg/l		0.8	1.20		No	Water additive which promotes strong teeth; Erosion of Natural deposits; Discharge from Fertilizer and aluminum factories
10/19/2017	Nitriate+Nitrite (as N)	10	10	mg/l	0.34	0.34	0.34		No	Erosion of natural deposits, runoff from fertilizers, Leaching from Septic systems - sewers
2017	Total Trihalomethanes	80	0	ug/l	15.6	8.9	23.6		No	By-product of drinking water chlorination
2017	Total Halocetics Acids	60	0	ug/l	2.8	0	7.2		No	By-product of drinking water chlorination
2017	Total Organic Carbon	TT	TT	mg/l		nd	1.6		No	Naturally present in the Enviroment
2017	Turbidity (lowest percentage)	TT**	TT**	%	100%	100%	100%		No	Soil runoff
2017	Turbidity ( Maximum level)	1	1	NTU	0.07	0.03	1.00		No	Soil runoff
10/19/2017	Sodium	N/A	N/A	mg/l	6.7				No	Metals; Erosion of Natural deposits
2017	Chloramine residual	4 MRDL		mg/l	0.9	0.01	1.80		No	Water additive (disinfective) used to control microbiological organisms.
2017	Total Coliform 40/month	5%	0%	%	2.50%	0%	2.50%		No	Naturally present in the Enviroment

We recently completed a round of UCMR monitoring as required by the USEPA. If you should have any questions regarding the UCMR monitoring, please contact our office at (219) 874-3228

## 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.

**90<sup>th</sup> 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 1/1/2016 thru 12/30/2016. 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.