



## **THE CITY OF NEW BUFFALO ANNUAL DRINKING WATER QUALITY REPORT FOR THE YEAR 2009**

In 1998, a new federal rule was passed to ensure that customers of community water supplies receive annual documentation of drinking water quality. The City of New Buffalo is your water supplier and we are pleased to present you with this annual water quality report. Our goal is to provide you with a safe and dependable drinking water supply that meets all federal and state requirements. **The results of this report show that we are reaching our goal.**

### **Source Water Assessment**

Your water comes from Lake Michigan (a surface water source). Our raw water is pumped to our water treatment plant which treats and delivers finished water to storage tanks, distribution mains and finally to your household water tap. The State of Michigan performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from "very-low" to "high" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source water is rated "**moderately high**".

**Susceptibility Determination:** The source water assessment for the City of New Buffalo's Water Intake includes **8 listed potential contaminant sources within the susceptible area, plus agricultural, urban and industrial runoff from the New Buffalo River Source Water Area.** Combining these potential contaminant sources with the moderately sensitive intake yields a **moderately high susceptibility determination for the City of New Buffalo's source water.**

**This assessment provides the city with a basis to institute a source water protection program as another tool to assure the continued safety of our water supply.**

A copy of the full Source Water Assessment Report can be obtained by contacting the City of New Buffalo at (269) 469-1500.

### **Health and Safety Information**

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. The sources of both tap and bottled drinking water includes: rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and in some cases, radioactive materials, and can pick up substances resulting from animal or human activity.

**Contaminants** that may be present 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 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, septic systems, and urban or agricultural runoff (i.e., pesticides and herbicides); or **Radioactive Contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities. **All of these contaminants were below the level of concern in your water supply.**

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at (1-800-426-4791 or visit ([www.epa.gov/ogwdw](http://www.epa.gov/ogwdw)).

To ensure that tap water is safe, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water, provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health.

**Information for Vulnerable Populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons 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. Federal guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from EPA's Safe Drinking Water Hotline, (1-800-426-4791).

**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. The City of New Buffalo Water Department 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 or at <http://www.epa.gov/safewater/lead>.

The City of New Buffalo maintains a state certified microbiological laboratory that tests your water 365 days a year. If you have any questions concerning your water utility, or need a copy of this Water Quality Report mailed to you, please contact Mr. Ken Anderson, Water Superintendent, at (269) 469-0381. You may also attend our monthly City Council Meeting on the 3<sup>rd</sup> Tuesday of each month at 7:00 p.m. at 224 West Buffalo Street (New Buffalo City Hall).

### 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 2009. Unless otherwise noted, the data presented is from January 1, 2009 to December 31, 2009. **All of the contaminants detected are well below allowable levels.**

Detected Substance (units)	Highest Level Detected	Range Of Detects	EPA's MCL	EPA's MCLG's	Violation Yes / No	Likely Sources of Substance
<b>Regulated Monitoring (Sampled At Water Treatment Plant)</b>						
Turbidity * (ntu)	0.17	0.09-0.17	< 0.30 ( See Notes)	N/A	No	Soil Runoff
Fluoride (ppm)	0.96	0.96 (Single Sample)	4.0	4.0	No	Water Additive Which Promotes Strong Teeth; Erosion of Natural Deposits
Nitrate (ppm)	0.50	0.50 (Single Sample)	10.0	10.0	No	Erosion of Natural Deposits
<b>Regulated Monitoring ( Sampled In Water Distribution System )</b>						
Detected Substance (units)	Running Annual Average	Range Of Detects	EPA'S MCL	EPA'S MCLG	Violation Yes / NO	Likely Source of Substance
TTHM (Total Trihalo-methanes) (ppb)	52.0	37.0-94.0	80	N/A	No	By-Product of Drinking Water Chlorination
HAA5 (Total Haloacetic Acids) (ppb)	23.0	21.0-40.0	60	N/A	No	By-Product of Drinking Water Chlorination
<b>Additional Regulated Monitoring ( Sampled In Water Distribution System )</b>						
Detected Substance (units)	Highest Running Annual Average	Range Of Detects	MRDL	MRDLG	Violation Yes / No	Likely Source of Substance
Total Chlorine Residual (ppm)	0.96	0.18-1.15	4.0	4.0	No	Water Additive Used For Disinfection
<b>Regulated Lead and Copper Monitoring (Sampled At Customer's Tap)</b>						
Detected Substance (units)	90 <sup>th</sup> Percentile Detected	Sites Found Above AL	EPA's MCL	EPA's MCLG	Violation Yes / NO	Likely Source of Substance
Copper Lead (ppb)	64 4.7	0 0	1300 15 AL	1300 0	No No	Corrosion of Household Plumbing Corrosion of Household Plumbing

<b>Unregulated Monitoring ( Sampled At Water Treatment Plant )</b>		
Detected Substance (units)	Highest Level Detected	Likely Source of Substance
Sodium (ppm)	10	Erosion of Natural Deposits
<b>Additional Unregulated Monitoring ( Sampled At Water Treatment Plant )</b>		
Detected Substance (units)	Highest Level Detected	Likely Source of Substance
Hardness as CaCO <sub>3</sub> (ppm)	166	Erosion of Natural Deposits
Sulfate (ppm)	34	Erosion of Natural Deposits
PH (ph units)	7.8	Measurement of Acidity of Water
Chloride (ppm)	14	Erosion of Natural Deposits

Note 1: Definitions are below and on page number 5.

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.

### **DEFINITIONS**

**RAA** – Running Annual Average.

**Maximum Residual Disinfectant Level (MRDL)** – 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.

**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** – Parts per billion

**ppm** – Parts per million

**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. (Copper = 64 ppb, Lead = 4.7 ppb).

**N/A** – Not applicable.

\* - **Turbidity** – 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. **100 percent of our samples met the required limits of < 0.3 NTU.**

**This concludes our report for the calendar year 2009. Your 2010 Water Quality Report can be expected before July 1, 2011.**