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New Baltimore Water Department
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New Baltimore, Mi 48047

City of New Baltimore



2009 Consumer Confidence Report

Our Goal

The City of New Baltimore Water Department strives to produce the highest quality water for our customers. This report will cover the source of our water, list the results of our tests, and give you important information about water and health.

Due to the introduction of zebra mussel, the clarity of the lake water has improved greatly. With the clear water comes increased algae blooms, which cause taste and odor problems. The earthy, musty taste associated with algae blooms does not pose a health risk, but creates an unpleasant taste and odor to the water. Powdered activated carbon is being added to our water to eliminate taste and odor problems.

SOURCE WATER ASSESSMENT

The purpose of the Source Water Assessment is to analyze the sensitivity and determine susceptibility of a community's source of drinking water to potential sources of contamination.

Sensitivity is determined from the natural setting of the source water (raw water to the water treatment plant), and indicates natural protection afforded the source water.

Using procedures established in the Great Lakes Protocol, Michigan Source Water Assessment Program, and the results of a two-dimensional hydrodynamic model of the St. Clair River-Lake St. Clair-Detroit River Waterway, and considering the effects of flow and mixing in the St. Clair River, the New Baltimore Water Treatment Plant intake has a high degree of sensitivity to potential contaminants. When the effects of lake currents in Lake St. Clair are considered, the New Baltimore intake has a high degree of sensitivity to potential contaminants. Susceptibility identifies factors within the community's source water area that may pose a risk to the water supply. The susceptibility determination provides information with respect to listed facilities and land areas within the source water area that should be given greater priority and oversight in implementing a source water protection program

The source water area for the New Baltimore intake was delineated using the results of a two-dimensional hydrodynamic model of the St. Clair River-Lake St. Clair – Detroit River Waterway and an associated particle tracker. Backtracking theoretical particles from the intake up current to adjacent shorelines defined the contributing shoreline area. The source-water area includes 26 potential contaminant sources, 16 listed potential contaminant sources within the susceptible area, numerous storm-sewer drainage areas, urban and agricultural runoff from Marsac and Crapeau Creeks, the Lake St. Clair and upstream watersheds, and shipping in Lake St. Clair. These potential contaminant sources and commercial and transportation activities, in combination with the highly sensitive intake, indicate that the New Baltimore source water is highly susceptible to potential contamination.

The New Baltimore source water is highly susceptible, given land uses and potential contaminant sources, and commercial and transportation activities within the source water area. However, historically, the New Baltimore Water Treatment Plant has effectively treated this source water to meet drinking water standards. The City of New Baltimore has instituted pollution prevention programs, but should also be cognizant of additional potential threats to its source of drinking water identified in this report. This report explains the background and basis for these determinations

SUBSTANCES FOUND IN SOURCE WATER

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 radioactive material, and can pick up substances resulting from the presence of animals or from 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, oil and gas production or farming.

OTHER MONITORING

In 2009 New Baltimore Water Dept. tested for specific contaminants as required by the EPA Unregulated Contaminant Monitoring Rule. None of the contaminants were detected. 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 those contaminants.

In addition to testing we are required to perform, our water system voluntarily tests for additional substances and microscopic organisms to make certain our water is safe and of the highest quality.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In 2009 The City of New Baltimore conducted additional monitoring for Cryptosporidium, Giardia, and E-coli in our raw water. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration cannot guarantee 100 percent removal. Our monitoring did not indicate the presence of these organisms in our source water. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause

**INFORMATION FOR
VULNERABLE POPULATIONS**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune compromised people such as a person undergoing chemotherapy, having undergone an organ transplant, have 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 the EPA'S safe drinking water hotline, 1-800-426-4791.

**HEALTH AND SAFETY
INFORMAION**

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 include 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 material and also substances resulting from animal or human activity.

WHERE WE'RE HEADING

Over the past few years The City of New Baltimore has seen rapid growth; because of this our water usage has increased tremendously especially in the summer months. We have completed our expansion, and we are no longer under any watering restrictions. Sprinkler meters are available at City Hall. We have changed our plant from a rapid sand filtration plant to a membrane filtration plant. Membrane filtration is the newest most advanced form of filtration available. The company supplying us with this new technology is G.E., you can visit their website for information on membrane filtration at www.ge.com. We will also be increasing our treatment capacity from 2 MGD (Million Gallons per Day) to 6 MGD. We are very excited about this upgrade and the new technology.

WE WANT TO HEAR FROM YOU

The City of New Baltimore council meets the

second and fourth Monday of every month at the New Baltimore city hall at 7:00 p.m. The meetings are open to the public.

If you have any questions regarding the information in this report or our expansion please don't hesitate to call Andrew Messina jr. at (586) 725-7300. Again thank you for letting us serve you.

KEY TERMS

- **MCLG – Maximum Contaminant Level Goal** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **MCL – Maximum Contaminant Level** – The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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 a 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 a billion)** – The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
- **Ppm – Parts per million (one in a million)** – The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
- **NTU – Nephelometric Turbidity Units** – Measures the cloudiness of water
- **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 of other requirements which a water system follow.
- **HAA5 – Haloacetic Acids** – The total of monochloroacetic, dichloroacetic, trichloroacetic, monobromoacetic, and dibromoacetic acids. Compliance is based on the total.
- **TTHM – Total Trihalomethanes** – The sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total.

Test results for 2009							
Regulated Contaminant	MCLG	MCL	Detection Range		Highest Avg.	Violation	Typical Source
Regulated Inorganic Parameters (ppm)							
Fluoride (ppb)	Jan. to Dec. 4	4	.80-1.25		1.12	No	water additive, which promotes strong teeth erosion
Nitrate	10	10	Not Detected	N/A	N/A	No	Runoff from fertilizer Leaching from septic Erosion
Regulated Organic Parameters							
Total Trihalomethanes (ppb)	NA 07/20/09	0.08	0.0032		N/A	No	By-product of Chlorination
HAA5 Haloacetic Acid (ppb)	NA 07/20/09	0.06	0.019		N/A	No	By-product of Chlorination
Chlorine (ppm)	MRDLG 4	MRDLG 4	.10-1.05		0.87	No	Water Additive Used to control microbes
Turbidity - Monitored every 2 hours at Plant Finished Water							
Highest single Measurement Cannot exceed 1 NTU			Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)			Violation	Typical Source
0.41			100%			No	Soil Runoff
Turbidity is the cloudiness caused by the presence of suspended solids in water.							
We monitor the turbidity because it is a good indicator of the effectiveness of our filtration system							
Special Monitoring and Unregulated Parameters							
Unregulated Contaminant*	MCLG	MCL	Date	Level Detected	Violation	Typical Sources	
Sulfate	N/A	N/A	8/24/2009	17 ppm	No	Erosion	
Hardness as CaCO3	N/A	N/A	8/24/2009	96 ppm	No		
Chloride	N/A	N/A	8/24/2009	13 ppm	No		
Sodium	N/A	N/A	8/24/2009	9 ppm	No		
Microbiological Contaminants - Monthly Monitoring in Distribution System							
Contaminant	MCLG	MCL	Highest Number Detected		Violation	Typical Sources	
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	In one month 0%		No	Naturally present in the environment	
<i>E.coli</i> or fecal coliform bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive	In entire year 0		No	Human waste and animal fecal waste.	
Lead and Copper Monitoring							
Contaminant	Test Date	Health Goal	Action Level AL	90th Percentile Value*	Number of samples over AL	Violation	Typical Sources
Lead (ppm)	June to Sept. 2008	0	15	2	1	No	Corrosion of household plumbing, Erosion of natural Deposits. Leaching of Wood Preservatives
Copper (ppb)	June to Sept. 2008	1300	1300	57	0	No	

*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.