# City of New Baltimore

# 2017 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.

## LEAD AND COPPER

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 Baltimore 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 1-800-426-4791 or at http://www.epa.gov/drink/info.

## 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 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 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

The City of New Baltimore does not have any watering restrictions. Sprinkler meters are available at City Hall. We are a membrane filtration plant. Membrane filtration is the newest most advanced form of filtration available. The company supplying us with this technology is G.E., you can visit their website for information on membrane filtration at www.ge.com. We have also increased our treatment capacity from 2 MGD (Million Gallons per Day) to 6 MGD. We are very proud to be utilizing this 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 about your bill please visit us at www.cityofnewbaltimore.org or call (586) 725-2151 ext. 111.

If you have any questions regarding the information in this report please don't hesitate to call Chris Hiltunen 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 2017

| Regulated Contaminant | MCLG | MCL | Detection Range | Highest Avg. | Violation | Typical Source |
|---|---|---|---|---|---|---|
| **Regulated Inorganic Parameters (ppm)** | | | | | | |
| Fluoride (ppm) | Jan. to Dec. 4 | 4 | .21-.85 | .63 | No | Water additive, which promotes strong teeth erosion |
| Nitrate (ppm) | 10 | 10 | | .30 | No | Runoff from fertilizer Leaching from septic Erosion |
| **Regulated Organic Parameters** | | | | | | |
| Total Trihalomethanes (ppb) | 2017 | 80 | 24-70 | 44.5 | No | By-product of Chlorination |
| HAA5 Haloacetic Acid (ppb) | 2017 | 60 | 11-63 | 27.1 | No | By-product of Chlorination |
| Chlorine (ppm) | MRDLG 4 | MRDLG 4 | .20-150 | 1.09 | 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** |
| .36 | 99.9% | 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 | 7/17/17 | 16 ppm | No | |
| Hardness as CaCO3 | N/A | N/A | 7/17/17 | 110 ppm | No | |
| Chloride | N/A | N/A | 7/17/17 | 14 ppm | No | |
| Sodium | N/A | N/A | 7/17/17 | 9.0 ppm | No | Erosion |

| 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 |
| *E.coli* or fecal coliform bacteria | 0 | A routine sample and a repeat sample are total coliform positive, and one is also fecal or *E.coli* 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 (ppb) | June to Sept. 2017 | 0 | 15 ppb | 1.9 ppb | 0 | No | Corrosion of household plumbing, Erosion of natural Deposits. Leaching of Wood Preservatives |
| Copper (ppb) | June to Sept. 2017 | 1300 | 1300 ppb | 0 ppb | 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.