

CITY OF NEW BALTIMORE



WATER DEPARTMENT

2008 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 exceed drinking water standards. The City of New Baltimore has instituted pollution prevention programs, but should be also 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.

For more information or a copy of this report contact Andrew Messina at (586)725-7300.

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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems
- Radioactive contaminants, which are naturally occurring or the result of oil and gas production.

INFORMATION ON LEAD

Infants and young children are typically more vulnerable to lead in drinking water than general population. It is possible that lead levels at your home may be higher than others in the community as a result of material used in your homes plumbing. If you are concerned about elevated lead levels in you homes water, you may:

- Run your water for 30 seconds to 2 minutes or until it feels colder. You may also want to run your water any time it has not been used for more than 6 hours.
- Always use cold water for drinking, cooking, or making baby formula.
- Use faucets and plumbing material that are either lead free or will not leach unsafe levels of lead into your water.

Call EPA'S Safe Drinking Water Hotline, 1-800-426-4791 for more information.

OTHER MONITORING

In 2008 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.

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.

WATER CONSERVATION TIPS

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions.

Conserving water inside your home:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.

- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers
- Turn off water while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

Conserving water outdoors:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water saving nozzles.
- Use water from a bucket to wash your car; save the hose for rinsing.

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 now 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 Zenon, you can visit their website for information on membrane filtration at www.zenon.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.

New Baltimore Water Treatment Plant Test Results for 2008

| Regulated Contaminant | MCLG | MCL | Test Date | Detection Range | Highest Average | Violation | Typical Source |
|---|---------|---------|-----------------|-----------------|-----------------|-----------|--|
| Regulated Inorganic Parameters (ppm) | | | | | | | |
| Fluoride (ppm) | 4 | 4 | Jan to Dec 2008 | 0.65 - 1.20 | 1.09 | No | Erosion of natural deposits; water additive, which promotes strong teeth |
| Regulated Organic Parameters | | | | | | | |
| Total Trihalomethanes (ppb) | NA | 80 | 06/20/08 | 39 | N/A | No | By-product of Chlorination |
| HAAS Haloacetic Acid (ppb) | NA | 60 | 06/20/08 | 25 | N/A | No | By-product of Chlorination |
| Chlorine Residual (ppm) | MRDLG 4 | MRDLG 4 | Jan to Dec 2008 | 0.10 - 1.30 | 0.83 | 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 |
| 0.18 NTU | 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 | 6/20/2008 | 19 ppm | No | Erosion |
| Hardness as CaCO3 | N/A | N/A | 6/20/2008 | 97 ppm | No | |
| Chloride | N/A | N/A | 6/20/2008 | 11 ppm | No | |
| Sodium | N/A | N/A | 6/20/2008 | 9 ppm | No | |

* Unregulated Contaminants are those for which EPA has not established drinking water standards.
Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

| 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 and a repeat sample are total coliform | In entire year 0 | | No | Human waste and animal fecal waste. |

| Lead and Copper Monitoring | | | | | | | |
|-----------------------------------|-------------------|------------------|-----------------|------------------------|---------------------------|-----------|---|
| Contaminant | Test Date | Health Goal MCLG | Action Level AL | 90th Percentile Value* | Number of samples over AL | Violation | Typical Sources |
| Lead (ppm) | June to Sept 2008 | 0 | 15 | 2 | 2 | No | Corrosion of household plumbing; Erosion of natural deposits. |
| Copper (ppb) | June to Sept 2008 | 1300 | 1300 | 57 | 0 | No | Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives. |

* 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.

Unless otherwise noted, the data presented in this table is from testing done Jan. 1 - Dec. 31, 2008. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

Key To Terms

| Symbol | Abbreviation for | Definition/Explanation |
|--------|--|---|
| 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. MCLs are set as close to the MCLGs 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 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 one billion) | The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram. |
| ppm | Parts per million (one in one 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. |
| N/A | Not Applicable | |
| RAA | Running Annual Average | |