



## City of Brighton 2009 Water Quality Report

This report offers you valuable information on where your water comes from, how it is treated, and a review of our water quality standards that have met all Environmental Protection Agency (EPA) and state standards and requirements for the 2008 calendar year. We are committed to and take pride in providing quality drinking water and service to our customers on a daily basis. If you have any questions or needs for service, please do not hesitate to contact your water utility for assistance. We will provide you with quick and responsive service for your needs, and as always, we are open to your suggestions for how we can improve our public service.

### **Water System Overview:**

The City of Brighton's water supply comes to you from five groundwater wells located on two well fields, each providing treatment facilities for:

- Iron removal
- Adding chlorine for disinfection
- Adding fluoride, to reduce tooth decay
- Adding polyphosphate for corrosion control
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After the treatment process the water is pumped to one of three storage tanks, providing 1,620,000 gallons of water for normal system demand and reserve water for fire protection needs.

### **Source Water Protection:**

In September 2002 the City of Brighton identified the its source water protection area and submitted a Wellhead Protection Program to the Michigan Department of Environmental Quality, which outlined management strategies to minimize the contamination threat to the municipal water supply. Since receiving the WHPP approval in 2003, the city continues to work towards the goal and guidelines outlined within the plan.

A safe and reliable source of drinking water is essential for life. Because our water supply is limited, you can help protect this valuable resource by disposing all household and hazardous waste in a proper and safe manner. Information on the proper disposal of household and hazardous waste is available on the City of Brighton's Comcast Cable Channel - 15, or you may contact the Department of Public Service Office at 810-225-8001, and we will be more than happy to assist you.

## **Contaminants and Their Presence in Water:**

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 that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

## **Sources of Drinking Water:**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity:

## **Vulnerability of Subpopulations:**

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 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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## **Contaminants That May Be Present in Source Water Include:**

- Microbial contaminants, such as viruses and bacteria that 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.

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

### **Additional Information for Lead:**

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. City of Brighton 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>.

### **Water Quality Data:**

The City of Brighton routinely monitors for contaminants in your drinking water according to Federal and State standards. The table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2008. The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. 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 a year old.

### **Terms and abbreviations used below:**

- **Maximum Contaminant Level Goal (MCLG)** – 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.
- **Maximum Contaminant Level (MCL)** – 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.
- **Maximum Residual Disinfection Level (MRDL)** – means 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 Disinfection Level Goal (MRDLG)** – means the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **N/A:** not applicable.
- **ND:** not detectable at testing limit.
- **ppb:** parts per billion or micrograms per liter.
- **ppm:** parts per million or milligrams per liter.

- **pCi/l:** picocuries per liter (a measure of radiation).
- **Action Level (AL):** the concentration of a contaminant which, if exceeded triggers treatment or other requirements that a water system must follow.

<u>Contaminants</u>	<u>MCLG</u>	<u>MCL</u>	<u>Your</u>		<u>Range</u>		<u>Sample</u>	<u>Violation</u>	<u>Typical Source</u>
			<u>Water</u>	<u>Low</u>	<u>High</u>	<u>Date</u>			
<b>Disinfectants &amp; Disinfection By-Products</b>									
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)									
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	0.51	0.14	0.51	2008	No	Water additive used to control microbes	
Haloacetic Acids (HAA5) (ppb)	NA	60	1	ND	1	2008	No	By-product of drinking water chlorination	
TTHMs [Total Trihalomethanes] (ppb)	NA	80	25	15	25	2008	No	By-product of drinking water disinfection	
<b>Inorganic Contaminants</b>									
Arsenic (ppb)	0	10	2	ND	2	2008	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	
Barium (ppm)	2	2	0.26	ND	0.26	2003	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
Chromium (ppb)	100	100	10	ND	10	2003	No	Discharge from steel and pulp mills; Erosion of natural deposits	
Fluoride (ppm)	4	4	0.79	0.69	0.79	2008	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	
Sodium (optional) (ppm)		MPL	185	35	185	2008	No	Erosion of natural deposits; Leaching	
<b>Microbiological Contaminants</b>									
Total Coliform (positive samples/month)	0	1	0	NA		2008	No	Naturally present in the environment	
<b>Radioactive Contaminants</b>									

Radium (combined 226/228) (pCi/L)	0	5	3.35	ND	3.35	2003	No	Erosion of natural deposits
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<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	1.02	2006	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	1	2006	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

**Conservation Tips:**

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

**Request for Emergency Service:**

Monday – Friday 8:00 am – 5:00 pm (810) 225-8001

After hours, holidays, and weekends (810) 227-2968

**Contact and Customer Information:**

We will update this report annually and will keep you informed of any problems that may occur throughout the year. Individual copies of this report will not be mailed this year; copies are available at City hall – 200 N. First Street, DPS office – 420 S. Third Street, or on the City’s web site – [www.brightoncity.org](http://www.brightoncity.org).

For more information about your drinking water, or the contents of this report, contact Tim Krugh, Utilities Superintendent, at 810-227-9479.

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).