

# VILLAGE OF MONTPELIER WATER PLANT DRINKING WATER CONSUMER CONFIDENCE REPORT FOR “2009”

To comply with the Safe Drinking Water Act amendments, the Village of Montpelier is annually issuing a report about monitoring performed on its drinking water. The purpose of this report is to provide information to you, the consumer, on the quality of your drinking water.

## **What's the source of your drinking water?**

The Village of Montpelier's 2 MGD Water Treatment Plant at 333 Porter Road was commissioned on the first day of September 2005. It's water supply comes from four (4) wells that are between 190 - 200ft. deep. Three of the wells are 16" in diameter and the fourth is an 8". The well production rates are two at 750 gpm and two at 350 gpm. The treatment process consists of lime softening, carbon dioxide and poly-phosphate stabilization, filtration, and chlorine disinfection. Your treatment plant is operated by two State Licensed Class III Water Supply Operators; Bill Blakely (Water Treatment Superintendent) and Josh Fritsch (Water Plant Chief Operator).

The Ohio EPA recently completed a study of the Village of Montpelier's source of drinking water, to identify potential contamination sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water rich zone) that supplies water to the Village of Montpelier has a low susceptibility to contamination based on; 1) presence of a thick layer of clay overlying the aquifer, 2) significant depth (over 90') of the aquifer, 3) no evidence to suggest that ground water has been impacted by any significant levels of chemical contaminations from human activities, and 4) no apparent potential contaminant sources in the protection area. This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is relatively low. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what costumers can do to help protect the aquifer is available by calling 419-485-0936.

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the proper authorities. Only by working together can we insure an adequate safe supply of water for future generations.

## **What are sources of contamination to drinking 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, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals and human activity.

Contaminants that may be present in source water include: **(A)** Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; **(B)** Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oils and gas production, mining, or farming; **(C)** Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban water runoff, and residential uses; **(D)** 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 storm water runoff, and septic systems; **(E)** Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

The sources of drinking water (both tap water and 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 Safe Drinking Water Hotline (1-800-426-4791)

## Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as people undergoing chemotherapy for cancer, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorder, some elderly, and infants can be particularly at risk for infection. These people should seek advice about drinking water from their health care providers. The EPA and Center of Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## About your drinking water.

Montpelier's drinking water has been nationally recognized for its wonderful taste by winning the gold medal in the Berkeley Springs International Water Tasting Competition in 2003, 2006, and 2007.

The EPA requires regular sampling to ensure drinking water safety. The Montpelier Water Treatment Plant conducted sampling for 18 different regulated contaminants in 2009; most of which were not detected in Montpelier's water supply. These samples were for total coliform and E-coli bacteria, Nitrate, Total Chlorine, 4 Synthetic Organic Chemicals, 5 Haloacetic acids and 5 Trihalomethane compounds. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

Listed below is information on those contaminants that were found in the Village of Montpelier's drinking water within the last 5 years.

### Inorganic Contaminants

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Fluoride, F	4 mg/L	4 mg/L	0.66 mg/L	0.66 mg/L	no	2007	Erosion of natural deposits.
Barium, Total	2 mg/L	2 mg/L	0.0176 mg/L	0.0176 mg/L	no	2007	Erosion of natural deposits.
Nitrate, NO <sub>3</sub>	0 mg/L	10 mg/L	0.30 mg/L	0.20 mg/L	No	2009	Erosion of natural deposits; Runoff from fertilizer use.

### Lead and Copper

Contaminant	MCLG	MCL (AL)	Reported Level	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Lead, Pb	0	15 ug/L	<5.0 ug/L	<5.0 (19) 13.3 ug/L (1)	no	2007	Corrosion or leaching of interior home plumbing
Copper, Cu	0	1350 ug/L	61 ug/L	<50.0 (15) 58 - 72 ug/L (5)	no	2007	Corrosion or leaching of interior home plumbing

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 Village of Montpelier 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>.

## Volatile Organic Contaminants

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
<b>Haloacetic Acids (HAA<sub>5</sub>)</b>	*	60 ug/L	<b>14.7 ug/L</b>	-	<b>no</b>	2009	By-product of drinking water chlorination
Dichloroacetic Acid	*	*	4.7 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of HAA <sub>5</sub> )
Dibromoacetic Acid	*	*	4.9 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of HAA <sub>5</sub> )
Monochloroacetic Acid	*	*	3.1 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of HAA <sub>5</sub> )
Trichloroacetic Acid	*	*	2.0 ug/L	-	<b>No</b>	2009	By-product of drinking water chlorination (part of HAA <sub>5</sub> )
<b>(TTHM) Total Trihalomethanes</b>	*	80 ug/L	<b>63.7 ug/L</b>	-	<b>no</b>	2009	By-product of drinking water chlorination
Bromodichloromethane	*	*	20.0 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of TTHM)
Bromoform	*	*	8.0 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of TTHM)
Chloroform	*	*	14.8 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of TTHM)
Dibromochloromethane	*	*	20.9 ug/L	-	<b>no</b>	2009	By-product of drinking water chlorination (part of TTHM)

\*There is no MCLG and/or MCL for this contaminant.

### Stage 1 Disinfectant/Disinfection Byproducts Rule IDSE Sample (SM1)

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Haloacetic Acids (HAA <sub>5</sub> )	*	60 ug/L	13.13 ug/L	12.5-14.0 ug/L	<b>no</b>	2009	By-product of drinking water chlorination
(TTHM) Total Trihalomethanes	*	80 ug/L	59.47 ug/L	55.8-63.9 ug/L	<b>no</b>	2009	By-product of drinking water chlorination

\*There is no MCLG and/or MCL for this contaminant.

### Stage 1 Disinfectant/Disinfection Byproducts Rule IDSE Sample (SM2)

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Haloacetic Acids (HAA <sub>5</sub> )	*	60 ug/L	8.87 ug/L	5.6-11.7 ug/L	<b>no</b>	2009	By-product of drinking water chlorination
(TTHM) Total Trihalomethanes	*	80 ug/L	55.77 ug/L	44.2-75.4 ug/L	<b>no</b>	2009	By-product of drinking water chlorination

\*There is no MCLG and/or MCL for this contaminant.

### Stage 1 Disinfectant/Disinfection Byproducts Rule IDSE Sample (ST1-1)

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Haloacetic Acids (HAA <sub>5</sub> )	*	60 ug/L	9.97 ug/L	7.0-14.7 ug/L	<b>no</b>	2009	By-product of drinking water chlorination
(TTHM) Total Trihalomethanes	*	80 ug/L	55.07 ug/L	36.0-65.5 ug/L	<b>no</b>	2009	By-product of drinking water chlorination

\*There is no MCLG and/or MCL for this contaminant.

## Total Chlorine Running Annual Average

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contamination
Total Chlorine Residual	<4 mg/L	4 mg/L	0.88 mg/L	0.63-1.20 mg/L (12)	<b>no</b>	2009	Chlorine added for disinfection.

## **We have a current, unconditioned license to operate our water system.**

The EPA establishes an annual monitoring schedule for each public water system. They regulate the testing of many types of contaminants on a regular basis. The Village of Montpelier Water Plant is regulated to routinely monitor for the following contaminants: Total Coliform Bacteria, E-coli Bacteria, Inorganic Chemicals, Synthetic Organic Chemicals, Volatile Organic Chemicals, Nitrates, Nitrites, Radiological, Lead & Copper, Mercury, and Radon. Throughout all this testing, **Montpelier has never had any violations on its drinking water.**

## **How do I participate in decisions concerning my drinking water?**

Public participation and comment are encouraged at regular meetings of the Village Council, which meets every second and fourth Monday of the month. The meetings are held at the Montpelier Police Dept. conference room and start at 7:30 p.m.

**For more information** on your drinking water, contact Bill Blakely (Water Plant Superintendent) or Josh Fritsch (Water Plant Chief Operator) at 485-0936. Normal working hours are 6:30 a.m. to 3:00 p.m. everyday of the week. Tours of the water plant can also be scheduled.

## **Definitions of some terms contained within this report.**

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 contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. In most cases, the USEPA sets MCLs at one in one million level. This means that if a person drinks two liters (approximately half a gallon) of water containing a contaminant at the MCL per day for 70 years, the risk for developing some adverse reaction to the substance is one in one million.

Action Level (AL): The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Parts per Million (ppm) or Milligrams per Liter (mg/L): Units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days, 1 (one) ounce of seasoning in 62,500 pounds of hamburger, or 1 (one) penny of \$10,000.

Parts per Billion (ppb) or Micrograms per Liter (ug/L): Units of measure for concentration of a contaminant. A part per billion corresponds to 1 (one) second in approximately 31.5 years, 1 (one) ounce of dye in 7,812,500 gallons of water, or 1 (one) penny of 10 million dollars.

Microsiemens per Centimeter (uS/cm) or Micromhos per Centimeter (uMho/cm): A measurement of conductance or the ability to carry an electrical current.

Gallons Per Minute (gpm): Rate of water flow.

IDSE: Initial Distribution System Evaluation

**See the next page for the average general analysis and chemical make-up of the Village of Montpelier's drinking water .**

**Listed below is the general analysis and chemical make-up of the Village of Montpelier's drinking water in 2009.**

<u>Test</u>	<u>Results</u>
<b><u>Annual Tests</u></b>	
Calcium, Ca.....	13.9 mg/L
Manganese, Mn.....	none detected
Chloride, Cl.....	24.3 mg/L
Iron, Fe.....	none detected
Magnesium, Mg.....	20.5 mg/L
Sodium, Na.....	30.2 mg/L
Silica, (Molybdate Reactive) ....	14.8 mg/L
Sulfate, SO4.....	39 mg/L
Solids, Suspended.....	none detected
Total Dissolved Solids.....	208 mg/L
Conductivity.....	365 uS/cm

**Weekly Tests**

Water Stability.....Stable to slightly  
scale forming

**Monthly Tests**

(average)

Phosphorus as PO4.....0.24 mg/L

**Daily Operational Tests**

(average)

Water Hardness, Total.....123 mg/L\*  
Alkalinity, Phenol.....3 mg/L  
Alkalinity, Total.....116 mg/L  
pH.....8.46  
Chlorine, Free.....0.73 mg/L  
Chlorine, Total.....0.84 mg/L

\* divide by 17.1 to achieve grains per gallon.

(The addition of poly-phosphate added to the water, sequesters the remaining hardness minerals and makes the water react more soft than it is.)