2009 Water Quality Report for City of Three Rivers

This report covers the drinking water quality for the City of Three Rivers, for the calendar year 2009. This information is a snapshot of the quality of the water that we provided to you in 2009. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 5 groundwater wells located in various locations around the City. The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from "very-low" to "high" base primarily on geologic sensitivity, water chemistry and contamination sources. The susceptibility of our source is moderately high on all of our wells. We are making efforts to protect our water sources by investigating a Wellhead Protection plan, which is, a plan to protect the public water wells by controlling or managing all potential sources of contamination within a designated area surrounding the well field.

- **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 **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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 systems 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/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 (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.

- 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 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 and residential uses.
  Radioactive contaminants*,* which are naturally occurring.
  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.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2009 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 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.

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.
- 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.

Regulated Contaminant	MCL	MCLG	Our Water	Sample Date (If not in '99)	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10ppb ***	0 ***	ND	12/07/2009	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate	10	10	ND	12/07/2009	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	ND-0.12	12/07/2009	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Unregulated Contaminant **						
Sodium (ppm)	NA	NA	6-20 mg/l	12/07/2009	No	Erosion of natural deposits
Contaminant Subject to AL	**Action Level**		**90% of Samples ≤ This Level**		**Number of Samples Above AL**	
Lead (ppb)	15		2 ppb	2008	1	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1300		220 ppb	2008	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

* EPA considers 50 pCi/l to be the level of concern for beta particles.

** Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

*** These Arsenic values are effective January 23, 2006. Until then, the MCL is 50 ppb and there is no MCLG.

Microbial Contaminants	MCL	MCLG	Number of Detections	Violation Y / N	Typical Source of Contaminant
Total Coliform Bacteria	No more than 1 positive sample per month	0	5	Y	Naturally present in the environment
Fecal Coliform and *E. coli*	Routine and repeat sample total coliform positive, and one is also fecal or *E. coli* positive	0	0	N	Human and animal fecal waste

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Arsenic: EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations. Beginning in January 2006, supplies must comply with the new arsenic maximum contamination level (MCL) of 0.010 milligrams per liter, or 10 parts per billion (ppb). Until then the MCL is 50 ppb.

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. The City of Three Rivers 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.

Coliform: Bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Chlorine Residuals: The City of Three Rivers began to continuously chlorinate the water system in December of 2009. Based on system wide sampling for the month, the average residuals calculate to 0.06 parts per million in December. In November the City chlorinated for three weeks with an average residual of 0.05 parts per million for the month. The City will continue to chlorinate the system indefinitely.

Last year, we conducted tests at our entry points for over 70 contaminants and all were not detected or were below regulated limits for the City drinking water.

We are committed to providing you reliable, and healthy water. We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report annually, and will also keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at City Hall, Three Rivers DPS, Three Rivers Library, and on the City of Three Rivers Web page at www.threeriversmi.org. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. City Commission meeting are held the first and third Tuesdays of each month. For more information about your water, or the contents of this report, contact Mark Glessner, Water System Superintendent at (269) 273-1845. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.