Public Utilities Department
Annual Water Quality Report

May, 2009

We are pleased to present to you this year's Annual Water Quality Report. Our goal is to provide you with a safe and dependable supply of drinking water. Tecumseh's water is supplied by 7 wells owned by the City, ranging from 80 to 260 feet below the surface. We introduce chlorine for disinfection, fluoride to promote strong teeth and polyphosphate in an effort to make the water less corrosive to your plumbing fixtures. The City of Tecumseh wells draw from the glacial outwash deposit known as the Adrian Drainage System. The outwash deposit that our wells draw from dissects the Defiance Moraine System with the Inner Defiance Moraine east of Tecumseh and the Outer Defiance Moraine to the west.

We are required to develop a ground water protection program at Federal, State, and local levels. As a result, the Wellhead Protection Program (WHPP) was created. The objective of the WHPP is to define an area surrounding a public water supply well or well field and to control potential sources of contamination within the designated area. This area is known as the wellhead protection area (WHPA). The WHPA has been defined as the surface and subsurface area surrounding a public water supply well or well field through which contaminants, if spilled or deposited, will most likely pass and eventually reach the well field.

The City of Tecumseh's drinking water is safe and meets Federal and State requirements. We routinely monitor for contaminants in your drinking water according to Federal and State laws. The following information shows the results of our monitoring for the period of January 1st to December 31st, 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 a year old. The most recent results of these are also listed in the table.

Terms and Abbreviations

Maximum Residual Disinfectant Level (MRDL) – 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 Disinfectant Level Goal (MRDLG) – the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Non-Detects (ND) – laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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 Contaminant Level Goal - The "Goal"(MCLG) is 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.

Contaminants	**Susceptible Vulnerable Subpopulation**	**Level of Concern**
Fecal Coliform/*E. Coli*	Infants, young children, and people with severely compromised immune systems	Confirmed presence (any confirmed detect)
Copper	People with Wilson's Disease	1.3 mg/l (ppm)
Fluoride	Children	4.0 mg/l (ppm)
Lead	Infants and children	15.0 ug/l (ppb)
Nitrate	Infants below the age of 6 months.	10.0 mg/l (ppm
Nitrite	Infants below the age of 6 months	1.0 mg/l (ppm)

Susceptibility Determination	
Based on source geology, well construction, water chemistry and potential contaminant sources	
The MDEQ has done a susceptibility determination on each of the two well fields Copies of the assessments for all city wells are at the public utilities department **Results are as follows**	
North well field	Low
South well field	Moderately High

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that

some constituents have been detected. The EPA has determined that **YOUR WATER IS SAFE** at these levels.

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 Hot line (800-426-4791).

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, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water:

- 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, mining or farming.

- Pesticides and herbicides, which may occur in various sources such as agriculture, urban storm water 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 storm water 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, 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 services lines and home plumbing. The City of Tecumseh 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.

This report will not be mailed out to each individual customer but the entire report can be obtained at the Public Utilities Department, 710 East Chicago Blvd. or at City Hall, 309 East Chicago Blvd. If you have any questions about this report or concerning your water utility, please contact Todd Amstutz, Superintendent of Utilities at 517-423-0402 or at tamstutz@tecumseh.mi.us. You also could attend the city council meeting on the first or third Monday of each month and ask questions at the public comment area on the agenda. We want our valued customers to be informed about their water utility.

The City of Tecumseh Utilities Department works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Respectfully submitted,

Todd M Amstutz
City of Tecumseh
Superintendent of Utilities

TEST RESULTS								
Date Tested	**Contaminant**	**Violation Y/N**	**Level Detected**	**Unit Measurement**	**Range Detected**	**MCLG**	**MCL**	**Likely Source of Contamination**
Detected Contaminants from the Well House								
2008	Fluoride	N	0.55	ppm	0.46-0.63	4	4	Erosion of natural deposits; additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2008	Sodium	N	26	ppm	20-31	NA	NA	Naturally present in ground water Sodium does not have an MCL associated with it.
2008	Barium	N	0.12	ppm	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Detected Contaminants from the Distribution/Consumers' Tap								
2008	Lead[1]	N	0	ppb	0 out of 20 homes exceeded the action level	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
2008	Copper[1]	N	0.641	ppm	0 out of 20 homes exceeded the action level	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
2008	TTHM	N	5.3	ppb	0-5.3	80	NA	By-product of drinking water disinfection
2008	Chlorine	N	0.1	ppm	0.06-0.12	MRDL 4	MRDLG 4	Disinfectant used to control microbes

1 Lead and copper results list the number of samples that exceeded the AL, rather than the range detected.