VILLAGE OF LYONS
Annual Drinking Water Quality Report for the Year 2011

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your water.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Your water comes from two groundwater wells, each over 400 feet drawing from the Saginaw Formation, both located within the village limits. 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" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source is **"low"**.

A copy of the full assessment report can be obtained from the **Lyons Village Office, Susan Craft, Water Operator, at 212 Water St., Lyons, MI 48851.**

As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

These substances can be:

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 come from a variety of sources such as agriculture and residential uses.

Radioactive contaminants, which are naturally occurring or be the result of oil and gas production and mining activities.

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.

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 regulations establish limits for contaminants in bottled water which provide the same protection for public health. All 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 the 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 at 1-800-426-4791.

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 service lines and home plumbing. The Village of Lyons 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

The Village of Lyons routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2011. 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 is more than one year old. The table represents the most current testing information available.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Not-Detected (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(ug/l) - 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 - 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. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant 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 Disinfectant Level Goal- MRDLG, means the level of a 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.

Inorganic Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	Average /Range	MCLG (MRDLG)	MCL (MRDL)	Likely Source of Contamination
Barium Results from 2006	N	0.11	mg/l	0.08 - 0.11	2	2	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.
Fluoride	N	0.30	mg/l	0.29 – 0.31	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Disinfection Byproducts

TTHM(Total Trihalomethanes) Results from 2010	N	0.0013	mg/l	0.0013	n/a	0.08	By-product of drinking water chlorination
Chlorine Residual	N	0.20	ppm	0.04 – 0.52	n/a	4	By-product of drinking water chlorination

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

Unregulated Contaminants

Contaminant	Average of level detected	Range of level detected	Unit of measure	
Sodium	15	13-17	Mg/L	

Contaminant	Date Tested	Number of Sites Tested	90th Percentile	# of Sites over Action Level	Action level/ units of Measurement	Likely Source of Contamination
Lead	09-10-09	10	0 ppb	0	15ppb	Corrosion of household plumbing systems, erosion of natural deposits
Copper	09-10-09	10	190 ppb	0	1300 ppb	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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.

What does this mean?

As you can see by the table, our system had no violations. We are 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.

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).***

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system**. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements**. Thank you for understanding.

We at the Village of Lyons work 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.**

If you have any questions about this report or concerning your water utility, please contact the Lyons Village Office at 989-855-2125. **We want our valued customers to be informed about their water utility.**

Want to learn more?
Please attend any of our regularly scheduled meetings.
They are held on the *third Monday* of each month at 6 PM.