

**2009 Annual Drinking Water Quality Report
SPRING ARBOR TOWNSHIP, JACKSON MICHIGAN**

We're pleased to present to you this year's Annual Quality Water 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 want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are located throughout the township. Our 15 wells draw from The Marshall Sandstone formation. The depths of the wells vary from 160 to 350 feet below the surface.

If you have any questions about this report or concerning your water utility, please contact Scott Bevier at Summit Township Offices, 2121 Ferguson Road, Jackson, Michigan 49203 or call 517-788-4119 ext. 248. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Tuesday of every month at 7:00 p.m. at the Summit Township Meeting Room, 2121 Ferguson Road Jackson, Michigan.

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 seven-tiered scale from "very-low" to "very high" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source water is high. Summit Township is participating in a countywide cooperative effort to protect our drinking water supply by developing a comprehensive Well Head Protection Program. This effort will identify the groundwater recharge areas for municipal wells and identify potential sources of contamination in those areas and recommend appropriate action to prevent contamination from entering the ground water.

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:

Maximum Contaminant Level Goal: 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: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Residual Disinfectant Level Goal or "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.

Maximum Residual Disinfectant Level or "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.

Parts per million (ppm) – one part per million corresponds to one minute in two years or a single penny in \$10,000.

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

Summit Township routinely monitors for contaminants in your drinking water according to federal and state laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2009.

The most recent results of these tests are also included in the table.

TEST RESULTS (Consumer Taps)							
Contaminant	Violation Y/N	Level Detected	Range	YEAR TESTED	MCLG	MCL	Likely Source of Contamination
Copper (ppb) consumer taps	N	150	0 >AL *	2008	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)** consumer taps	N	5	0 >AL *	2008	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Total Trihalomethanes (ppb) consumer taps	N	RAA = 10	1-27	2009	0	80	Byproduct of chlorination
HAA5 (ppb) consumer taps	N	RAA= 21	1-28	2009	0	60	Byproduct of chlorination
Chlorine (ppm) consumer taps	N	RAA= 0.24	0.1-0.4	2009	MRDL =4.0	MRDL =4.0	Water additive used to control microbes
Microbiological Contaminants							
Total Coliform Bacteria		1		2009	0	1	Naturally present in the environment
Fecal coliform and <i>E. coli</i> ***		(1)**** 8/12/09		2009	0	1 *****	Human and animal fecal waste
TEST RESULTS (Plant Taps)							
Arsenic(ppb)	N	7.0	0 - 7.0	2008	0	10	Erosion of natural deposits; Runoff from orchards;

*****		*****					Runoff from glass and electronics production wastes
Barium (ppm)	N	0.11	0.06-0.11	2008	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm) *****	N	34	9-34	2009	n/a	n/a	Erosion of natural deposits
Fluoride (ppm) consumer taps	N	1.4	0.6-1.4	2009	4.0	4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

We are pleased to report that our drinking water is safe and meets federal and state requirements

* Lead and Copper are regulated based on a 90th percentile calculation. These samples were done in 2008.

** 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. Spring Arbor Township 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 drinking 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 (800-426-4791). Or at <http://www.epa.gov/safewater/lead>.

***Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems

****MCL: (systems that collect ≥ 40 samples/month) 5% of monthly samples are positive; (systems that collect < 40 samples/month) 1 positive monthly sample.

*****All the follow-up samples required by the DNRE were acceptable and no further positives have been detected.

***** Arsenic – While your drinking water meets USEPA’s standard for arsenic, it does contain low levels of arsenic. USEPA’s standard balances the current understanding of arsenic’s possible health effects against the cost of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

***** Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

***** Sodium does not have an MCL and the information is for health care/information purposes.

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.

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 contaminants 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 Hotline (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 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, 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 must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at (800-426-4791).

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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.

We at Spring Arbor Township/Summit Township 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.

Please call our office if you have questions.

