2010 Water Quality Report for St. Louis

This report covers the drinking water quality for the City of Saint Louis for the calendar year 2010. This information is a snapshot of the quality of the water that we provided to you in 2010. 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, #"s 1,5,6,7,& 8, each 130-180 feet deep drawing from unconsolidated glacial drift sand and gravel overlaying bedrock of the Saginaw Formation watershed. 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 geological sensitivity, water chemistry and contaminant sources. In October 2009 the State upgraded our assessment rating for all wells to "Highly" susceptible. **A sixth well, #4 was not pumped to the system.** Six sites of possible source contamination are known. These are: the Pine River downstream of M-46, St. Louis Electric Department generator facility, Smith property on State Road, Royster Midwest (now part of Bear Truss), Gratiot County landfill and Velsicol Chemical Property. If you would like to know more about the report please contact Steven Mepham, Superintendent of Water at 989-681-3567.

- **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 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 stormwater 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.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2010 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, 2010.

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 radioactivity).
- Action Level: 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 '10)	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	0	0 – 5	2010	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.05 – 0.13	2010	NO	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.36 – 0.64	2010	NO	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Selenium (ppb)	50	50	0 – 5	2010	NO	Erosion of natural deposits
Unregulated Contaminant *			**Average / Range**			
Sodium (ppm)	Not regulated		36 - 82	2010	NO	Erosion of natural deposits
p-CBSA * * (ppb)	Not regulated		0 - 130	2010	NO	By-product of DDT manufacturing: According to USEPA
Contaminant Subject to AL	**Action Level**		**90% of Samples ≤ This Level**	**Number of Samples Above AL**	**Sample Date(if not in '10)**	
Lead (ppb)	15		5.0	1	2008	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3		.065	0	2008	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

***** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. Some unregulated contaminants are tested in routine samples and those results are available upon request.

*** *** (p-CBSA) The USEPA detected the chemical parachlorobenzene sulfonic acid in monitoring wells near the Velsicol Chemical cleanup site. Tests in 2004 indicated the possible presence of p-CBSA in three City wells (#1, 4, & 7). p-CBSA was monitored as an indicator to determine if contaminants from the site were migrating. Tests in 2005 confirmed the presence of p-CBSA. The City has removed well #4 from production. In 2009, p-CBSA was detected in concentrations at or above test method reporting limits in wells # 1, 6 & 7 and below reporting limits in wells # 5 & 8. Well # 1 & 6 are used MINIMALLY. USEPA toxicology studies have shown

that p-CBSA is not teratogenic or carcinogenic in concentrations lower than 25,000 ppb. The MDEQ has set a drinking water criterion of 7,300 ppb for p-CBSA in drinking water. The concern is that other contaminants may follow the path p-CBSA has taken towards the wells.
The City is currently researching treatment options or replacement sources of water to permanently eliminate the effected wells.

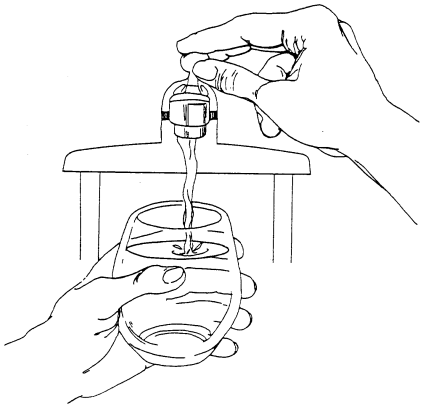
While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels 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.

Is our water system meeting other rules that govern our operations? The State and EPA require us to test our water on a regular basis to ensure its safety.

We met and exceeded all the monitoring and reporting requirements for 2010.

We are committed to providing you safe, 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.

We invite public participation in decisions that affect drinking water quality. If you have any questions about the quality of your water supply or wish to be involved with the decisions concerning your water supply please attend any regular City Council meeting at City Hall. Meeting dates are the first Tuesday of the month at 7:00 p.m. and the third Tuesday at 7:30 a.m.



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For more information about your water, or the contents of this report, contact Steven R. Mepham at 989-681-3567. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.