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The 2016 Water Quality Report summarizes the City of St. Cloud's drinking water monitoring results during the 2016 calendar year. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect water resources.

Water Source

The City of St. Cloud uses the Mississippi River as the source for drinking water. The drinking water provided to our customers continues to meet or exceed drinking water quality expectations set by the Minnesota Department of Health (MDH). MDH has determined that our source water is potentially susceptible to contamination. In response, the City of St. Cloud developed a Source Water Protection Plan to help prevent contamination of the Mississippi River. To obtain the source water assessment, please call 651-201-4700 or 1-800-818-9318 (press 5) during regular business hours. The source water assessment can be viewed online at www.health.state.mn.us/divs/eh/water/swp/swa.

Please contact the Public Utilities Department or MDH if you have questions regarding drinking water or if you would like information about opportunities for public participation in decisions that may affect the quality of the water.

Laboratory Analysis Results

No contaminants were detected at levels that violated federal drinking water standards in 2016. However, some contaminants were detected in trace amounts that were below regulatory or legal limits. The table that follows shows the contaminants that were detected in trace amounts in 2016.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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. 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.

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. Substances that may be present in river (source) water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from wildlife, septic systems, agricultural livestock operations, and/or wastewater treatment facilities.
- **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 residential use, agriculture and/or urban stormwater runoff.
- **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.

Definitions

MCLG - Maximum Contaminant Level Goal - concentrations less than this have no known or expected risk to health.

MCL - Maximum Contaminant Level - the highest level of a contaminant that is allowed in drinking water.

TT - Treatment Technique - a required treatment process to reduce the contaminant level.

MRDL - Maximum Residual Disinfectant Level.

MRDLG - Maximum Residual Disinfectant Level Goal.

AL - Action Level - the concentration that triggers treatment or other requirement.

NA - Not Applicable.

90th Percentile Level - Value obtained by disregarding 10% of the highest samples taken.

NTU - Nephelometric Turbidity Unit - measurement of light intensity as a beam of light passes through a water sample.

ST. CLOUD DRINKING WATER 2016

Finished Water Parameter	Highest Level Allowed	Level Found		Typical Source of Substance
		Average	Range	
Nitrate as nitrogen (parts per million)	MCL < 10.4	0.34	NA	Runoff from fertilizer use, leaching from septic tanks/sewage; erosion of natural deposits.
Fluoride (parts per million)	MCL < 4.0	0.63	ND – 0.78	Added to promote strong teeth as required by the State; erosion of natural deposits; discharge from fertilizer & aluminum factories.
Chlorine (parts per million)	MRDL 4.0	Highest Quarterly Avg. 3.3	Lowest/Highest Monthly Avg. 2.2 – 3.3	Water additive used to control microbes.
Turbidity (NTU)	TT	Percent in High Quality Range 100%	Highest Single Measure 0.13	Soil runoff.
Turbidity is a measure of the cloudiness of the water and is a good indicator of the effectiveness of the filtration system				
TTHM (parts per billion)	MCL Max: 80	20	12.6 - 29.5	By-product of drinking water disinfection.
TTHM: Total Trihalomethanes are formed when free chlorine (used for disinfection) combines with specific naturally-occurring substances				
Haloacetic Acids (parts per billion)	60	19.18	11.8 – 25.9	By-product of drinking water disinfection.
	Removal Required	Removal Achieved	# of Quarters not in Compliance	Typical Source
Total Organic Carbon (% Removed)	25 – 30 %	54 - 65 %	0	Naturally present in the environment.
	Action Level (AL)	90% Level	# of Samples Above Action Level	Typical Source
Lead (parts per billion)	15	1.9	0	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (parts per million)	1.30	0.08	0	Corrosion of household plumbing systems; erosion of natural deposits.
<p>If present in elevated levels, lead can cause serious health problems especially for pregnant women and children. Lead in drinking water is primarily caused from materials and components associated with service lines and home plumbing. The City of St. Cloud is responsible for providing high quality drinking water, but does not 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 the tap for two minutes before using for drinking or cooking. You can have your water tested for lead by contacting the Safe Drinking Water Hotline 800-426-4791 or http://www.epa.gov/safewater/lead.</p>				

MISSISSIPPI RIVER AT ST. CLOUD 2016

Mississippi River Water	Range	Typical Source
Cryptosporidium (oocysts/L)	ND – 0.071	Human and animal fecal waste.

Information for Residents with Special Health Needs

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Our monitoring indicates the presence of these organisms in our source water (Mississippi River) at low 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 microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791.