

2007 WATER QUALITY REPORT FOR THE ST. JAMES SCHOOL WATER SYSTEM

Is my water safe?

In 2007, the St. James School Water System was tested for and found in compliance with the U.S. Environmental Protection Agency (EPA) and state drinking water health standards. St. James School and the Washington County Department of Water Quality are committed to providing you with information on your water supply and taking the necessary actions to supply water in compliance with all drinking water health standards.

Do I need to take special precautions?

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/Centers for Disease Control (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).

Where does my water come from?

The St. James School Water System utilizes a spring as its water source. The spring was determined to be under the direct influence of surface water by the Maryland Department of the Environment in 1999. Therefore, St. James School upgraded the water treatment facility to treat the spring water in accordance with the regulations. This treatment includes filtration, chlorination, pH adjustment, softening and ultra violet disinfection prior to entering the distribution system. In 2003, a well was placed into operation as a back up water supply. However, this water source was not utilized in the water system during 2007.

Source water assessment and its availability

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the St. James School water system. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The source of St. James School's water supply is a spring from an unconfined carbonate rock aquifer. The Source Water Assessment area was delineated by the WSP using EPA approved methods specifically designed for this source type.

Point sources of contamination were investigated within the assessment area from field inspections, contaminant inventory databases, and previous studies. The Maryland Office of Planning's 2000 digital land use map for Washington County was used to identify non-point sources of contamination. Well information and water quality data were also reviewed. An aerial photograph and maps showing potential contaminants sources and land use within the Source Water Assessment area are included in this report.

The susceptibility analysis is based on review of the existing water quality data for the St. James School Water System, the presence of potential sources of contamination in the source water assessment area, well integrity, and the inherent vulnerability of the aquifer. It was determined that the St. James School Water supply is susceptible to contamination by nitrate, radionuclides, volatile organic compounds, synthetic organic compounds and microbiological contaminants. Radon 222, a naturally occurring contaminant, may pose a risk to the water supply. The water supply is not susceptible to contamination by other inorganic compounds or other radionuclides.

Why are there contaminants in my drinking 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

How can I get involved?

To get involved with your water system, please contact Mr. William J. Wivell at (301) 733-9330.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of 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 in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

<u>Contaminants</u>	<u>MCLG or MRDLG</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range Low High</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
Disinfectants & Disinfection By-Products							
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)							
Haloacetic Acids (HAA5) (ppb)	NA	60	0	0 0	2007	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	1.13	0 1.79	2007	No	By-product of drinking water disinfection
Inorganic Contaminants							
Fluoride (ppm)	4	4	0.23	NA	2005	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury [Inorganic] (ppb)	2	2	0.6	NA	2005	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate [measured as Nitrogen] (ppm)	10	10	4.4	NA	2007	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)		MPL	172.3	NA	2005	No	Erosion of natural deposits; Leaching

Microbiological Contaminants

Turbidity (NTU) 100% of the samples were below the TT value of 0.3
 A value less than 95% constitutes a TT violation.
 The highest single measurement was 0.51. Any measurement in excess of 1 is a violation unless otherwise approved by the state.

<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.27	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	0	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

<u>Name</u>	<u>Reported Level</u>	<u>Range Low High</u>
Bromodichloromethane (ppb)	0.65	0.5 0.8
Chloroform (ppb)	0.6	0.5 0.7

Unit Descriptions	
<u>Term</u>	<u>Definition</u>
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
<u>Term</u>	<u>Definition</u>
MCLG	MCLG: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Results of voluntary monitoring

The Washington County Department of Water Quality conducts routine testing that is not included in the Water Quality Data Table. A list of these parameters and their results are included in the Table of Results of Customer Interest below.

TABLE OF RESULTS OF CUSTOMER INTEREST

PARAMETER	LEVEL/ RANGE DETECTED	UNIT OF MEASUREMENT
pH	7.0 to 7.4	Standard Units
Chlorine	0.3 to 2.0	ppm
Hardness	17 to 222	ppm
Alkalinity	68 to 461	ppm
Dibromochloromethane	3.0	ppb

Dibromochloromethane is an unregulated contaminant for this system. This contaminant is typically produced as a result of chlorination by a water treatment facility.

**For more information
 St. James School Water System
 Phone: 301-733-9330
 Attn: William J. Wivell**

