



# St. Mary's County Metropolitan Commission

## 2011 Annual Water Quality Report

Lexington Park Community

PWSID #0180007

### Continuing Our Commitment

Once again the St. Mary's County Metropolitan Commission (the Commission) proudly presents its Annual Water Quality Report. This edition encompasses all testing completed from January 1 through December 31, 2011. We are pleased to inform you that our compliance with all State and Federal drinking water laws remains exemplary. As always, the Commission is committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. For more information on water quality or other questions regarding this report contact Gary Reynolds at 301-737-7400 Ext. 104.

### Metcom Mission

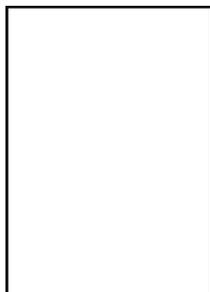
Construct, operate and maintain public water supply and public waste water conveyance and treatment systems in a manner that is sustainable, reliable, economical and safe for the Commission's employees, the environment, and the citizens of St. Mary's County; and to ensure that construction is timely and in accordance with the St. Mary's County Comprehensive ( Land Use ) Plan.

### How Can I Get Involved?

The public is invited to participate in the Commission meetings and voice concerns about the drinking water or any Commission-related issues. The public meetings are held on the second and fourth Thursday of every month beginning at 3 pm. Meetings are held at the Commission's Main Office, 23121 Camden Way, California, MD 20619.

The Commission members and the election district (ED) that they represent are as follows: Thomas C. Lancaster (ED1); Brenda L. Hanson (ED2/9); Thomas R. Tudor, Vice Chairman (ED3); Richard Mueller (ED4/5); David DeMauro (ED6); Joseph A. St.Clair, Chairman (ED7); Steven Willing (ED8); Capt. H.E. "Ted" Mills, CO, Patuxent River NAS; and the Director of the St. Mary's County Metropolitan Commission, Jacquelyn V. Meiser.

St. Mary's County Metropolitan Commission  
23121 Camden Way  
California, MD 20619



*This publication contains important drinking water quality information from the St. Mary's County Metropolitan Commission. It is intended for the person(s) who drinks the water.*

## Source Water Assessment

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the 35 community water systems in St. Mary's County, including the Lexington Park community supply. 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 within the areas, and (3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The water supply sources of the community systems in St. Mary's County are naturally protected, confined aquifers of the Atlantic Coastal Plain physiographic province. The Lexington Park water system is currently using 21 wells that pump water from the Aquia, Piney Point, and Patapsco formations. The wellhead protection areas were delineated by the WSP using the U.S. EPA's approved methods specifically designed for each source. Potential point sources of contamination within and near the assessment areas were noted from field inspections and contaminant inventory databases. Well information and water quality data were also reviewed.

The susceptibility analysis is based on a review of the existing water quality data for each water system, on the presence of potential sources of contamination in the individual assessment areas, on well integrity, and on aquifer characteristics. It was determined that the Lexington Park water supply is not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. The wells that obtain water from the Aquia formation (Plants 1,2,4,6-10,12,15-18,20,21,25) are susceptible to naturally occurring arsenic (based on the new EPA standard). The susceptibility of the water supply to radon-222, a naturally occurring element, will depend on the final MCL (Maximum Contaminant Level) that is adopted for this contaminant.

Copies of the Source Water Assessment are available at the Commission main office, or visit our website at [www.metcom.org](http://www.metcom.org).

Regulated		MCL (MRDL)	MCLG (MRDLG)	Aquia Aquifer	Patapsco Aquifer	Piney Point Aquifer	Typical Source
ARSENIC	ppb	10	0	4.6 - 8.0 ug/L 2010	N/D 2010	N/D 2011	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Beta/Photon Emitters	pCi/L	50	0	N/D 2010	3 pCi/L 2007	N/D 2010	Decay of natural and man-made deposits
DI (2-ETHYLHEXYL) PHTHALATE	ppb	6	0	.6 - .81 ug/L 2010	1.2 ug/L 2007	1.5 ug/L 2007	Discharge from rubber and chemical factories
SODIUM	ppm	NA	NA	13-84 mg/L 2010	58.8-78 mg/L 2011	8.2-26 mg/L 2010	Erosion of natural deposits
BARIUM	ppm	2	2	ND 2010	.0084-.015 mg/L 2010	N/D 2010	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
CHROMIUM	ppb	100	100	2.6 ug/L 2009	2.6 ug/L 2009	N/D 2010	Discharge from steel and pulp mills; Erosion of natural deposits
COMBINED RADIUM 226 & 228	pCi/L	5	0	N/D 2010	.3 pCi/L 2007	N/D 2010	Erosion of natural deposits
BERYLLIUM	ppb	4	4	2.5 ug/L 2009	2.5 ug/L 2009	N/D 2010	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
FLUORIDE	ppm	4	4	.5 mg/L 2010	N/D 2010	.3-.44 mg/L 2011	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

## Sampling Results

During the past year the Commission conducted hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the maximum contaminant level (MCL), it is important that you are aware of what was detected and the quantity of the substance present in the water sample.

State Regulations allow us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Important Drinking Water Definitions	
Term	Definition
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	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.

Unit Descriptions	
Term	Definition
ppm	parts per million, or milligrams per liter (mg/L)
ppb	parts per billion, or micrograms per liter (µg/L)
pCi/L	picocuries per liter (a measure of radioactivity)
NA	Not applicable
ND	Indicates that the substance was not found by laboratory analysis

Distribution System	MCL	MCLG	Your Water	Sample Date	Violation	Typical Source
Total Coliform	5% of monthly samples are positive	0	0	NA	No	Naturally present in the environment
FECAL COLIFORM or E. COLI BACTERIA		0	0	NA	No	Human or animal fecal waste
Distribution System	MCL (MRDL)	MCLG (MRDLG)	Range		Typical Source	
HAA5 HALOACETIC ACIDS	ppb 60	NA	N/D 2011		By-product of drinking water disinfection	
TTHMS TOTAL TRIHALOMETHANE	ppb 80	NA	ND - 4.52 ug/L 2011		By-product of drinking water chlorination	
COPPER	ppm AL=1.3	1.3	.094 mg/L 2011		Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	

## Where Does My Water Come From?

All of the water that the Commission provides to its customers is drawn from confined aquifers. The confining units are thick, impervious clay layers that lie above and below the water-bearing sand strata. We are very fortunate that these confining layers naturally protect our aquifers. The only treatment your water receives prior to entering the water distribution system is the addition of chlorine as a precautionary disinfecting agent. Your drinking water is drawn and distributed from 21 underground wells. Thirteen are in the Aquia Aquifer, which ranges in depth from 450 - 600 feet. Three wells are in the Piney Point Aquifer, which lies 360 feet below the earth's surface. Five are in the Patapsco Aquifer, which lies about 925 feet underground.

## Additional Information for Lead

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 Commission 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 or at <http://www.epa.gov/safewater/lead>.

## New Arsenic Regulation

While your drinking water meets EPA's standard for arsenic, it does contain low detectable levels. EPA standard balances the current understanding of arsenic's possible health effects against the costs 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. All Commission wells are in compliance with EPA requirements.

### **Important Health Information**

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. 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. EPA/CDC (Environmental Protection Agency/Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### **Water Conservation Tips**

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill.

Here are a few suggestions:

Conservation measures inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water saving devices in faucets, toilets, and appliances;
- Wash only full loads of laundry;
- Do not use the toilet for trash disposal;
- Take shorter showers;
- Do not let the water run while shaving or brushing teeth;
- Soak dishes before washing;
- Run dishwasher only when full.

### **Information On The Internet**

The U.S. EPA Office of Water ([www.epa.gov/watrhome](http://www.epa.gov/watrhome)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Maryland Department of the Environment Web site ([www.mde.state.md.us/water](http://www.mde.state.md.us/water)) provides complete and current information water issues in Maryland, including valuable information about our watershed.

### **Substances That Might Be in Drinking Water**

To ensure that tap water is safe to drink, the U.S. EPA imposes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for the 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 these contaminants does not necessarily indicate that the water poses a health risk.

The source of drinking water (both tap 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, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife.

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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, 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 which may also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800)426-4791.