



St. Mary's County Metropolitan Commission

Birch Manor

PWSID #0180015

2010 Annual Water Quality Report

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 St. Mary's Metropolitan 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>.

Source Water Assessment

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the thirty-five community water systems in St. Mary's County, including the Birch Manor community supply. The required components of this report as described in Maryland's Source 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 Birch Manor water system is currently using two wells that pump water from the Aquia Formation. The Wellhead Protection area was delineated by the WSP using U.S. EPA's approved method specifically designed for this 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, the presence of potential sources of contamination in the individual assessment areas, well integrity, and aquifer characteristics. It was determined that the Birch Manor water supply is not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. The susceptibility of the water supply to radon-222, a naturally occurring element, will depend on the final MCL that is adopted for this contaminant.

Once again, we proudly present our Annual Water Quality Report. This edition covers all testing completed from January through December 2010. We are pleased to tell you that our compliance with all State and Federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality 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.

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 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).

The source of your drinking water is two wells in the Aquia Aquifer. Wells in this aquifer range in depth from 450 to 600 feet beneath the land's surface. Our water comes 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 is the addition of chlorine as a precautionary disinfecting agent prior to entering the distribution system.

We are pleased to report that our drinking water is safe and meets or exceeds Federal and State requirements. The following report is provided in compliance with Federal regulations and will be provided annually. This report outlines the quality of our drinking water and what that quality means.

For more information regarding your drinking water or water service, call the St. Mary's County Metropolitan Commission at (301) 373-4733, Monday through Friday, 7:30 am to 4:30 pm, or visit our website www.metcom.org.

In this report 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:

DEFINITIONS

ND = Non-Detects

Indicates that the substance was not found by laboratory analysis.

ppm = Parts Per Million or Milligrams Per Liter (mg/l)

One part per million corresponds to one minute in two years or a single penny in \$10,000.00.

ppb = Parts Per Billion or Micrograms Per Liter (ug/l)

One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.00.

pCi/L = Picocuries Per Liter

Picocuries per liter is a measure of the radioactivity in water.

AL = Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. (Note: Only applies to copper and lead levels)

MCLG = Maximum Contaminant Level Goal

The "Goal" is 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 "Maximum Allowed" is 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 = Non-Applicable

No minimum levels have been established by the EPA.

Substances That Might Be in Drinking Water

It is important to understand that the EPA has determined that the detection of these substances in the drinking water does not constitute a known threat to public health at levels less than the MCL. MCLs 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. The St. Mary's County Metropolitan Commission's water has proved to be below those levels for the contaminants listed.

The St. Mary's County Metropolitan Commission found some regulated contaminants present in your water system at levels below the Maximum Contaminant Level (MCL). These levels have been determined by the EPA to be safe. These contaminants are shown below, along with the MCLG and MCL for each one detected.

Although we ran tests for over 75 regulated contaminants, only the following listed substances were found. For a complete list of tested, undetected substances, contact the Water Division at (301) 373-4733.

| Substance | Date Tested | Unit | MCL | MCLG | Level Detected | Possible Sources |
|---------------------------|-------------|------|--------|------|----------------|---|
| Arsenic | 2010 | ppb | 10 | N/A | 7.0 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| Barium | 2010 | ppm | 2 | 2 | 0.073 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Copper | 2008 | ppm | AL=1.3 | 1.3 | .12 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Di Ethylhexyl Phthalate | 2007 | ppb | 6 | 0 | .6 | Discharge from rubber and chemical factories |
| Fluoride | 2010 | ppm | .4 | .4 | .18 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Sodium | 2010 | ppm | N/A | N/A | 19.8 | Erosion of natural deposits |
| TTHM Total Trihalomethane | 2010 | ppb | 80 | N/A | 2.12 | By-product of drinking water disinfections |

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 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.

No fluoride has been added to any of our water systems. However, small amounts of fluoride exist naturally in our water source. These levels may not meet the recommended amounts for dental protection. You may wish to consult with your dental care provider to discuss fluoride supplements. To inquire about the amount of fluoride detected in the water system, please call the Water Division at (301) 373-4733 between the hours of 8:00 a.m. and 4:30 p.m.