



**Cecil County**  
Department of Public Works

PWSID: 0070015

# **Meadowview/ Highlands Water System**

## **Annual Drinking Water Quality Report**

**Calendar Year 2009**

**June 2010**

*This is Cecil County's annual report on water quality in accordance with the 1996 Safe Drinking Water Act. The data in this report are the result of drinking water quality testing performed in 2009.*





## What is this Water Quality Report About?

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is to inform you about the fine quality water and services Cecil County provides to you every day and provides an overview of last year's (2009) drinking water quality. Under the "Consumer Confidence Reporting Rule" of the Federal Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to the consuming public. Presented in this report is information regarding the source of our water, its constituents and health risks associated with any contaminants detected in quantities exceeding a drinking water regulatory maximum contaminant level (MCL), action level (AL), or treatment techniques (TT).

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Traducalo o hable con alguien que lo entienda bien.

## Your Water is Safe!

As you can see by the Tables and information in this Report, the drinking water provided to you met all drinking water health standards for the calendar year 2009. We have learned through our extensive monitoring and testing that some contaminants have been detected, but the Environmental Protection Agency (EPA) has confirmed that **YOUR WATER IS SAFE AT THESE LEVELS**, once again.

Cecil County Department of Public Works analyzes the water for more than 80 contaminants and of the few contaminants that were found all were well below EPA's MCLs. The MCLs were established by the U.S. Congress in the SDWA of 1974 and its revisions in 1986 and 1996. Testing is performed by Cecil County on a daily basis at the treatment plant and the County performs additional testing to the water that is distributed throughout the System.

These standards and other drinking water regulations are constantly reviewed by the EPA and, if needed, revised to reflect the latest medical research. In our State, the Maryland Department of the Environment (MDE) enforces and oversees these standards and regulations.

The County continues to make improvements to your water system to ensure the quality of water is at its highest. We want you to understand the efforts we make to continually improve the water treatment process and we are committed to ensuring the highest quality of your water.

## Meadowview/Highland's Source of Drinking Water and How it's Treated

The drinking water for the Meadowview/Highlands System is drawn and distributed from two wells, Sycamore and Fletchwood, which are each drilled deep below the earth's surface into the underground aquifer known as The Patuxent Formation. The water is treated with sodium hypochlorite as a precautionary disinfection agent prior to entering the water distribution system as well as soda ash for pH control.

In addition, the County purchases water from United Water Delaware, which operates a surface-water plant in Stanton, Delaware. The Stanton Water Treatment Plant drains in source water from the White and Red Clay Creek, and its primary disinfection process is sodium hypochlorite and chlorine. A complete copy of the 2009 Water Quality Report from United Water Delaware can be obtained at: <http://www.unitedwater.com/uwde/wtrsupply.com>.

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# Meadowview/Highlands Water System

## Why There May Be Contaminants in our Water Supply

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 radioactive material, and can pick up substances resulting from the presence of animal or human activity.

**Contaminants that may be present in the source waters include:**

- (i) **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (ii) **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (iii) **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (iv) **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.
- (v) **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, 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.

Consumers should be aware that drinking water, including bottled water, may reasonably be expected to contain at least trace 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 Safe Drinking Water Hotline (800-426-4791)**.



## Important Information from the U.S. EPA (Drinking Water and People with Weakened Immune Systems)

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 their drinking water from their health care providers. The 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)**.

## Is There Lead in My Water?

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. Cecil County 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 15 to 30 seconds or until it becomes cold or reaches a steady temperature 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>.



## Meadowview/Highlands Water Quality Data

The table below lists all of the drinking water contaminants that we detected in the drinking water distribution system during calendar year 2009 or, in some cases, during the most recent sampling period. Although all of the substances we detected are under the Maximum Contaminant Level (MCL), as shown on the table below, we feel it is important that you know what was detected and how much was present. We routinely monitor for a number of contaminants in the water supply to meet regulatory drinking water compliance requirements. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. 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. In these cases, the most recent sample data are included along with the year in which the sample was taken.

### What is in my Water?

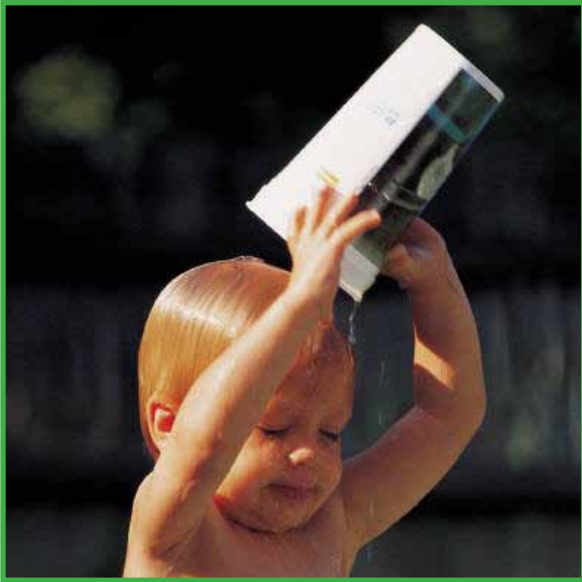
#### Contaminants Detected in Meadowview/Highlands Drinking Water.

Substances We Detected	Unit	What's Allowed (MCL)	What's The Goal (MCLG)	Detected Level	Range Detected	Typical Source of Contaminant	Did We Exceed the Limit?
<b>Inorganic Contaminants</b>							
Nickel	ppm	N/A	N/A	0.006	0.004-0.006	Erosion of natural deposits	NO
Barium	ppm	2	2	0.14	0.071-0.14	Discharge of drilling wastes, discharge from metal refineries; erosion of natural deposits	NO
Chlorine	ppm	4	4	1.79	0.02-1.79	Water treatment additive to disinfect supply	NO
Copper <sup>1</sup>	ppm	1.3	1.3	0.2	N/A	Corrosion of household plumbing fixtures; erosion of natural deposits; leaching from wood preservatives	NO
Nitrate <sup>2</sup>	ppm	10	10	6.8	5.2-6.8	Erosion of natural deposits; runoff from fertilizer use	NO
Sodium <sup>3</sup>	ppm	N/A	N/A	93	44-93	Erosion of natural deposits	NO
Iron <sup>4</sup>	ppm	0.3	N/A	0.169	0.009-0.169	Naturally occurring; corrosion of pipes	NO
Lead <sup>1</sup>	ppb	15	0	3	N/A	Corrosion of household plumbing fixtures	NO
<b>Radioactive Contaminants</b>							
Alpha emitters <sup>5,6</sup>	pCi/L	15	0	7	6-7	Erosion of natural deposits	NO
Beta/photon emitters <sup>5,6,7</sup>	pCi/L	50	0	5	4-6	Decay of natural and man-made deposits	NO
Radium 226 <sup>5,6</sup>	pCi/L	5	0	1.5	1.4-1.5	Decay of natural and man-made deposits	NO
Radium 228 <sup>5,6</sup>	pCi/L	5	0	1.3	1.1-1.3	Decay of natural and man-made deposits	NO
Combined Radium <sup>5,6</sup>	pCi/L	5	0	2.8	2.5-2.8	Erosion of natural deposits	NO
<b>Synthetic Organic Contaminants</b>							
Di(2-ethylhexyl) phthalate <sup>3,5</sup>	ppb	6	0	5.6	0.8-5.6	Discharge of rubber and chemical factories	NO



<sup>1</sup> Results are from the 2008 monitoring year, which is the most recent sampling completed in accordance with MDE by EPA regulations.  
<sup>2</sup> Nitrate in drinking water at levels above 100 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue-baby syndrome. Nitrate levels may risk quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.  
<sup>3</sup> Results are from the 2006 monitoring year, which is the most recent sampling completed in accordance with MDE by EPA regulations.  
<sup>4</sup> Iron is a SMCL and can cause discoloration in water.  
<sup>5</sup> Results are from the 2007 monitoring year, which is the most recent sampling completed in accordance with MDE by EPA regulations.  
<sup>6</sup> Results are from the 2005 monitoring year, which is the most recent sampling completed in accordance with MDE by EPA regulations.  
<sup>7</sup> The MCL for the Beta particles is written as 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for Beta particles. Results are an average from the data detected.

# Meadowview/Highlands Water System



## Source Water Assessment and Protection

The Maryland Department of the Environment (MDE) conducted and completed a source water assessment for community water systems, including yours, several years ago.

Components of the assessment included (1) delineation of areas that contribute to each water source, (2) identification of potential sources of contamination within the areas, and (3) determination of the susceptibility at each water supply to contamination.

In general, contamination of water supplies can come from several natural and man-made sources. As water travels over the surface of the land it dissolves naturally occurring minerals, and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or human activity.

Copies of this assessment may be obtained by contacting the Water Supply Program at MDE located at 1800 Washington Blvd, Baltimore, Maryland 21230, (410) 537-3702. For more information on the Maryland Source Water Protection Program see [www.mde.state.md.us/Programs/WaterPrograms/Water\\_Supply/sourcewaterassessment](http://www.mde.state.md.us/Programs/WaterPrograms/Water_Supply/sourcewaterassessment).



## Drinking Water Quality Terms Defined

In the water quality tables and throughout this report you may find terms and acronyms you might not be familiar with. The following definitions are provided to help you better understand these terms:

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirement, which a water system must follow.

**EPA (The United States Environmental Protection Agency):** The Federal agency created in 1970 that implements major environmental legislation. EPA's Office of Drinking Water oversees federal drinking water regulations and standards.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology. Contaminants in drinking water, if detected, must be present in levels below the MCLs in order for the system to be in compliance with all applicable regulations.

**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, over and above the MCL.

**MRDL (Maximum Residual Disinfectant Level):** Disinfectant level beyond which some people may experience irritating effects. Based on running annual average of monthly averages of distribution system samples computed quarterly.

**ND (Non-detect):** laboratory analyses indicate that the contaminant is not present, when using the EPA regulated methods and equipment.

**Ninetieth percentile (for lead and copper only) (90th%):** Ninety percent of the homes where tap water was tested are at or below this level.

**NRL: (No regulatory limit)**

**NTU: (Nephelometric Turbidity Unit):** Unit of measure for clarity of water.

**pCi/L: (Picocuries per liter):** A measure of radioactivity (radiation) in water.

**ppb: (Parts per billion) or micrograms per liter (ug/L),** Corresponds to one penny in \$10,000,000 or one minute in 2,000 years.

**ppm: (Parts per million) or milligrams per liter (mg/L),** Corresponds to one penny in \$10,000 or one minute in two years.

**SDWA (Safe Drinking Water Act):** The Safe Drinking Water Act of 1974 and its 1986 Amendments are the laws enacted by Congress authorizing the EPA to establish national drinking water regulations.

**SMCL (Secondary Maximum Contaminant Level):** Non-enforceable guideline which is not directly related to public health, commonly associated with cosmetic or aesthetics within the water.

**Total Coliform:** A type of bacteriological test routinely used to determine if contamination has occurred in the drinking water system.

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.



## Frequently Asked Questions by Our Consumers

**Q.** Who makes the rules and regulations for drinking water?

**A.** Regulations are made by both federal and state agencies. The Safe Drinking Water Act (SDWA) was passed by Congress in 1974 and amended in 1986 and 1996. It is governed by the United States Environmental Protection Agency (EPA). The web site for these standards is <http://www.epa.gov/safewater/standards.html>. In addition to the SDWA, the EPA has promulgated several specific rules, including the Total Coliform Rule and the Lead and Copper Rule, to address various types of water contaminant problems.

**Q.** Do energy and water efficient laundry machines really work?

**A.** Yes! Newer models use 40% less water and can save you up to 6,000 gallons per year.

**Q.** Is it safe to drink water from my garden hose?

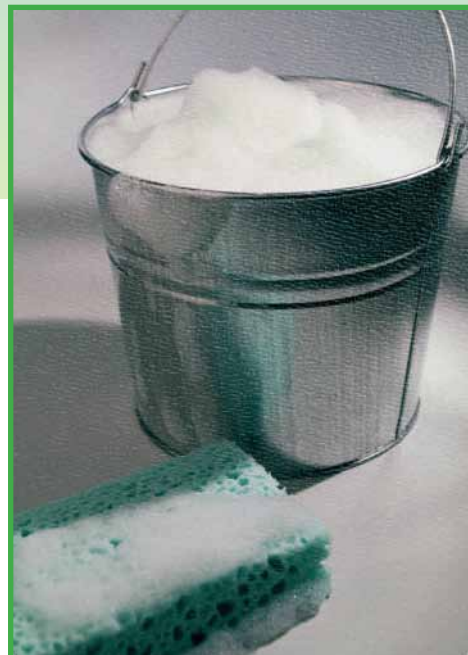
**A.** No. Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose, which are not good for you or your pets. Check with your local hardware store to find the hoses made with "food-grade" plastic.

**Q.** Is it okay to use water from the hot-water tap for drinking, cooking, or making baby formula?

**A.** No, it is not recommended to use water from the hot-water tap due to potential impurities that may exist. Hot water generally comes from a hot water heater that may contain impurities that should not be ingested. Some of these impurities might be metals from household plumbing that are concentrated in the water heating process.

**Q.** Where can I find out more information on drinking water quality?

**A.** The following websites have been provided for your use.  
<http://www.epa.gov/safewater/drink/index.html>  
<http://www.drinktap.org/consumerdnn/home/waterinformation/tabid/57/default.aspx>.



*The Cecil County Department of Public Works Water and Wastewater Division strive to provide our customers with a safe, uninterrupted water supply. We hope that all of our customers recognize the need to protect our most precious resource, our community water supply.*

# Meadowview/Highlands Water System

## Protecting Your Drinking Water Supply!

### Ongoing System Improvements

The Cecil County Department of Public Works Water and Wastewater Division is continually upgrading its treatment and distribution systems to improve water quality. It is our goal to provide our customers with a safe and reliable source of water which continues to meet state and federal quality requirements.

### Why Save Water and How to Avoid Wasting It?

To help you and your family, here are a number of ways that you can conserve water both inside and outside your home. You can reduce your water use by 20-70 percent by installing more water-efficient fixtures in your home! Leaking and dripping faucets can waste 15-20 gallons a day, which can add up to 6,000 gallons per year. **Use water wisely!**

Additional water conservation information can be found at [www.epa.gov/safewater/publicoutreach/index.html](http://www.epa.gov/safewater/publicoutreach/index.html) or [www.mde.state.md.us/programs/waterprograms/water\\_conservation/](http://www.mde.state.md.us/programs/waterprograms/water_conservation/).

- Check faucets and leaky toilets and do not use the toilet for trash disposal;
- Turn off the water while you brush your teeth and take shorter showers;
- Run your washing machine and dishwasher only when they are full;
- Repair or replace leaking hoses and sprinklers.

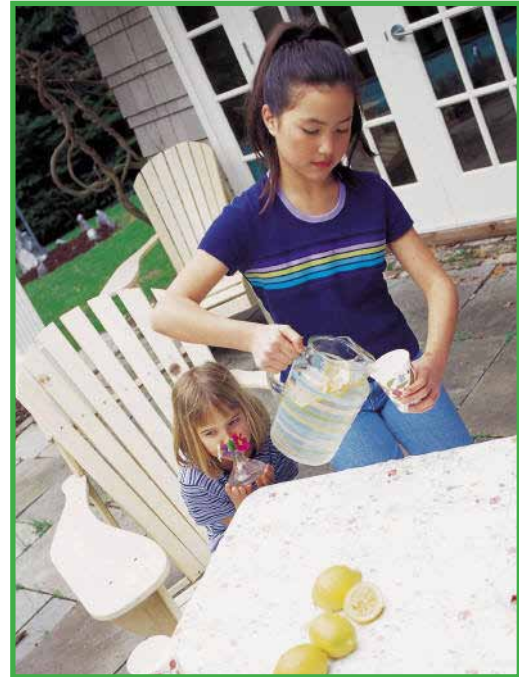
### Help Us Out!

Your drinking water system may be a target for people intent on disrupting and causing harm to your community water supply.

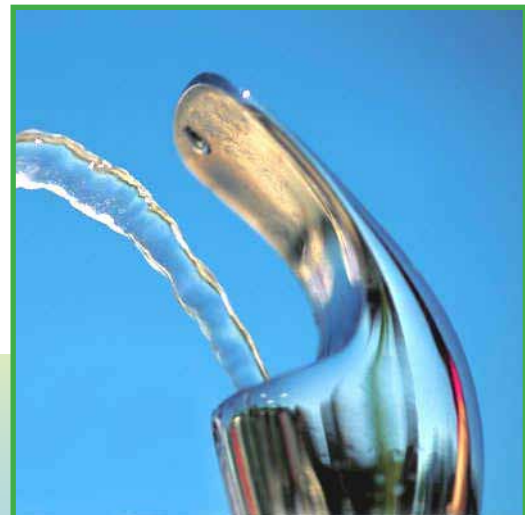
Because utilities are often located in isolated areas, your drinking water system may cover large areas that are difficult to secure and patrol. Residents can help by monitoring and reporting any suspicious activity in and around their water utility. **Report any suspicious activity or vandalism immediately to 911.**

Examples of suspicious activity might include the following:

- People dumping or discharging material into a reservoir, river, or stream;
- An unidentified vehicle parked near water supply facilities;
- Suspicious opening or tampering with manhole covers, buildings, hydrants, or equipment;
- People climbing on top of water tanks;
- People photographing or videotaping utility facilities, structures or equipment;
- Unidentified people loitering around locked gates, doors, or entrances to water supply facilities;
- People other than fire companies and water utility staff connected to hydrants.



This newsletter is printed on recycled paper using soy-based inks.



## Who Can I Call?

**If you did not understand what was presented to you in this report or if you need additional information about your drinking water...**

The point of contact for your water system for water quality information is **William K. Owens, Manager of Water and Wastewater, 410-996-6260 or email at [wowens@ccgov.org](mailto:wowens@ccgov.org)**. More information about contaminants and potential health effects can be obtained by calling the EPA's **Safe Drinking Water Hotline (800-426-4791)** or on EPA's web site at <http://www.epa.gov/safewater/index.html>.



## Meadowview/Highlands Water System

# Annual Drinking Water Quality Report

**Calendar Year 2009**

*IMPORTANT: Drinking Water Quality Information Inside*



To Our Water Service Customers:  
We are once again pleased to report that your drinking  
water meets or exceeds all standards set for quality and safety.

Cecil County Department of Public Works  
Water and Wastewater Division  
P.O. Box 370  
Charlestown, MD 21914