



# 2010 City of Annapolis Annual Drinking Water Report

(Prepared June 2011)

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Hi! I'm  
Sparkle!



We've gone Green this year! This report was mailed to all City of Annapolis water users on one page using less paper and less ink to save more for you, the consumer. In this online version, "Sparkle" gives you water-saving measures. Learn and enjoy!

**We** are pleased to present the Annual Water Quality Report for calendar year 2010.

This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe, pleasant and dependable supply of drinking water. We are very pleased to report that our drinking water is safe, meeting or exceeding all Federal and State requirements.

This report is provided annually in compliance with Federal regulations, and reflects the quality of our treated drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the high quality of your drinking water.

Your water treatment plant produces and delivers over 1.5 billion gallons of water per year, and is supplied with raw water from eight deep wells. These deep wells are positioned in the Magothy and Upper and Lower Patapsco aquifers.

There are two wells in the Lower Patapsco aquifer at a depth of approximately 1000 feet, two wells in the Upper Patapsco aquifer at 500 feet and four wells in the Magothy aquifer that are about 300 feet deep. These wells are located in close proximity to the treatment plant located on Defense Highway.

**As** water travels over the land or under ground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some of these substances. It is important to remember that the presence of these substances does not necessarily pose a health risk. More information about contaminants and their potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791 or <http://www.epa.gov/ogwdw/hotline>.

The City of Annapolis Water Supply and Treatment Facility routinely monitors for contaminants in your

*Can you list 10 ways you used water today? Can you list items you used that require water for manufacturing? It takes 518 gallons of water to make a new car tire, and... It takes about six gallons of water to grow a single serving of lettuce! Just imagine not having enough water for all your needs. Read on to learn how to economize.*

*Minimize use of kitchen sink garbage disposals. They require lots of water to operate. Start a compost pile as an alternate method to dispose of food waste, which will also give a boost to your garden.*

Although the city is required to periodically test for the presence of over 110 contaminants, those listed in the table were the only ones found at a detectable level. We have learned through our monitoring and testing that some substances in very small amounts have been detected. The EPA has determined that, at these levels, your water is safe.

**In** June of 2003, the City of Annapolis, in conjunction with Anne Arundel County, completed a study of the outcrop areas of the aquifers used as raw water sources at the Annapolis Water Supply and Treatment Facility. The study concluded that there are no immediate threats to the raw water quality and that there is little chance of any change to this threat condition in the future.

**MCL's** are set at very stringent levels. To understand the possible health effects described for many regulated substances, a person would have to drink two liters of water every day at the maximum allowed level for a lifetime to have a one-in-a-million chance of having the described health effect for the substance.

In our continuing efforts to maintain a safe and dependable water supply, it will be necessary to make improvements, modifications, and/or renewals in the City's water system. Some of the improvements that have been completed or proposed post 9/11 include:

- Engineering to replace fluoride feed system – construction completion scheduled for 2011.

- Water treatment plant replacement evaluation continues.
- Ongoing programs exist to replace old water mains and appurtenances and to upgrade services.



*Use your water meter to check for hidden water leaks: Read the house water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak somewhere in your house..*

These improvements are undertaken each year to ensure that an adequate supply of reliable, safe, clean, and pleasant potable water is available to each household. The costs of these improvements may be reflected in the water rate structure.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people 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 providers. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium (an organism that is rarely found in water from underground aquifers and only occurs in surface water) and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).



*Replacing an 18-liter flush toilet with an ultra-low volume 6-liter model provides 70% savings in water flushed and cuts indoor water use by about 30%.*

**Terms** and Abbreviations in the Table:  
**Maximum Contaminant Level Goal (MCLG):**  
 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 error.

**Maximum Contaminant Level (MCL):**  
 It 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.  
**Action Level (AL):**  
 The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

*In the garden and yard: Water during the early parts of the day. Avoid watering when it's windy. Water your lawn only when it needs it. When sprinkling, place an empty tuna can in the yard; when full, turn off the water. Add organic matter and use efficient watering systems for shrubs, flower beds and lawns. Plant drought-resistant shrubs and plants.*



**Units of Measure** and Abbreviations in the Table:

ppb: Parts per billion or micrograms per liter  
 ppm: Parts per million or milligrams per liter  
 mrem/yr: Millirems per year (measures of radiation).

**Note:**  
 In 2009 the City was required to test for 10 additional Unregulated Contaminants. None were detected above the minimum detection limit. These substances are tested to determine whether there is a need for further testing or regulation.

## 2010 City of Annapolis Water Report Summary ~ Prepared in 2011

INORGANIC CONTAMINANT	MCL	MCLG	LEVEL DETECTED	SAMPLE DATE	SOURCE
Fluoride (ppm)	4	4	1.26	1/2010	Water additive to promote dental health
Copper (ppm)	AL= 1.3	1.3	0.009	7/2008	Corrosion of household plumbing
Lead (ppm)	AL= 0.015	0	0.002	7/2008	Corrosion of household plumbing
<b>RADIONUCLIDES</b>					
Gross Beta (mrem/yr)	4	0	3	5/2009	Erosion of natural deposits
<b>SYNTHETIC ORGANIC CONTAMINANT</b>					
Di(2-ethylhexyl) Phthalate (ppm)	6	0	.09	1/2004	Discharge from rubber & chemical
<b>DISINFECTION BI-PRODUCTS</b>					
Total Trihalomethanes (ppb)	80	N/A	0.8 ~ 5.5	Quarterly /2010	Byproduct of chlorinated organic matter
Total HAA5 (ppb)	60	N/A	<1 ~ 1.0	Quarterly /2010	Byproduct of chlorinated organic matter
<b>METALS</b>					
Sodium (ppm)	N/A	N/A	2.08	2/2008	Naturally present in the environment



*Water conservation comes naturally when everyone in the family learns simple water-saving methods around the home. This can make a big difference.*

**Lead and Copper Rule:** 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 City of Annapolis 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.



**We want our customers and citizens to be informed about their water utility. If you have any questions about this report or your water service, please contact the Water Plant Superintendent or Assistant Superintendent at 410-224-2140.**

