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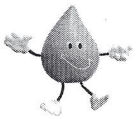
2008 City of Annapolis Water Report Summary
Prepared 2009

INORGANIC CONTAMINANT	MCL	MCLG	LEVEL DETECTED	SAMPLE DATE	SOURCE
Fluoride (ppm)	4	4	0.92	1/08	Water additive to promote dental health
Copper (ppm)	1.3	AL	0.009	7/08	Corrosion of household plumbing
Lead (ppm)	0.015	AL	0.002	7/08	Corrosion of household plumbing
RADIO NUCLIDES					
Gross Alpha emitters	15	0	<1	1/04	Erosion of natural deposits
Beta emitters (mrem/yr)	4	0	<3	1/04	
Combined Radium (pCi/1)	5	0	<2.5	1/03	
SYNTHETIC ORGANIC CONTAMINANT					
Di(2-ethylhexyl) Phthalate	6	0	.09	1/04	Discharge from rubber & chemical
DISINFECTION BI-PRODUCTS					
Total Trihalomethanes	80	N/A	3.2 ~ 4.5	Quarterly / 08	Byproduct of chlorinated organic matter

We want our customers and citizens to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact the Superintendent or the Assistant Superintendent at the Water Plant, 410-224-2140, or the Acting Director of Public Works, 410-263-7949.



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

The Complete CCR Contaminant Table is available at
http://www.annapolis.gov/upload/images/government/depts/public/complete.pdf

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2008 City of Annapolis Annual Drinking Water Report
(Prepared June 2009)

Ellen Moyer, Mayor
Robert Agee, Acting Director of Public Works
Prepared by James FitzGerald, Water Plant Superintendent

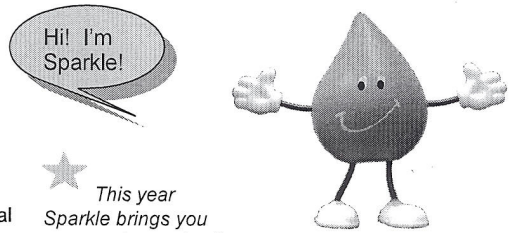
We are pleased to present the Annual Water Quality Report for calendar year 2008.

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 and meets or exceeds Federal and State requirements.

This report is provided in compliance with federal regulations and is being provided annually 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 water.

Your water treatment plant produces and delivers over 1.5 billion gallons of water per year supplied by seven deep wells. These deep wells are positioned in the Magothy and Upper and Lower Patapsco aquifers.

There is one well 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.

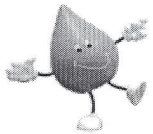


This year Sparkle brings you more water saving tips.

"Can you list 10 ways you used water today? Can you list items you used that require water for manufacturing them? It takes 2072 gallons of water to make four new car tires, 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."

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.



"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."

The City of Annapolis Water Supply and Treatment Facility routinely monitors for contaminants in your drinking water in accordance with Federal and State laws. The Contaminant Table shows those constituents which were present at levels above the minimum detection limit but below the Maximum Contaminant Level (MCL).

Although the city is required to periodically test for the presence of over eighty contaminants, those listed in the table were the only ones found at a detectible 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.

"Washing a sidewalk or driveway with a hose uses about 50 gallons of water every 5 minutes.

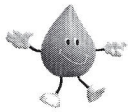
As much as 150 gallons of water can be saved when washing a car by turning the hose off between rinses. Use a broom, not a hose, to clean driveways and sidewalks."

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:

- Continuing evaluation and adjustment to security measures around our facilities.
- Engineering and design of two new clearwell storage tanks has been completed; construction began in February of 2009 ($2,950,000).
- Engineering for the replacement of the chlorine feed system is complete. Construction began in March 2009 ($147,000).
- Engineering of wells #12 and #13 is complete, which replaces the failed wells #8 and #9; construction began in late spring of 2009 ($2,750,000).
- The water treatment plant evaluation study for future improvements began in spring of 2008 ($100,000).
- There are also ongoing programs to replace old water mains and appurtenances and to upgrade services.



"Use your dishwasher and clothes washer for full loads only. In most cases, pre-rinsing dishes is not necessary. With clothes washers, avoid the permanent press cycle; it uses an extra 5 gallons of water for an extra rinse. Replace old clothes washers with new Energy Star rated washers using 35 - 50% less water and 50% less energy. Are you in the market for a new clothes washer? Consider a water-saving frontload model."

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%."

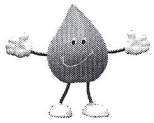
Terms and Abbreviations Used in the Table on last page

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):
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.

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



"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"

In 2002 the City was again required to test for the 10 additional Unregulated Contaminants. None were detected above the minimum detection limit. They are listed in the Contaminant table at the City's web site. These substances are tested for presence/absence and level of occurrence to determine whether there is a need for further testing or regulation.