Calvert County Water and Sewerage Division
Chesapeake Heights Water System
Public Water System Identification Number (PWSID): 0040018
2008 Annual Drinking Water Quality Report

Dear Customer:

We are pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" Report (CCR) to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Calvert County Water and Sewerage Division is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

Water Source

The Chesapeake Heights water system is supplied by two wells in the Aquia Aquifer. The water is chlorinated to ensure bacteriological purity. Other than chlorination, we do not treat the water, as it meets drinking water standards naturally.

An Explanation of the Water Quality Data Table

The table shows the results of our water quality analysis. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (Maximum Contaminant Level, or MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and Maximum Contaminant Level Goal (MCLG) are important.

Maximum Contaminant Level or 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.

Maximum Contaminant Level Goal or MCLG: The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Key to Table

AL = Action Level
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal

pCi/L = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (ug/L)

Well 01: Chesapeake Heights

Substance	Date Tested	Unit	MCL	MCLG	Level Detected	Possible Sources	Violation
Fluoride	08/28/07	ppm	**SMCL 2.0	-	0.3	N/A	NO
Iron	12/29/04	ppm	**SMCL 0.3	0.3	0.1	N/A	NO
Sodium	08/28/07	ppm	*DWEL 20	-	9.5	N/A	NO
*Arsenic	08/08/07	ppb	10	0	4.0	Erosion of natural deposits	NO
Copper	12/31/08	ppm	AL=1.3	1.3	0.2	Corrosion of household plumbing systems.	NO
Total Trihalomethanes	09/27/07	ppb	80	-	4.3	By product of drinking water disinfection	NO
Chloroform	12/29/04	ppb	80	-	0.9	N/A	NO
Di(2-ethylhexyl) phthalate	12/29/04	ppb	6.0	0	1.6	Discharge from rubber and chemical factories	NO
Lead	12/31/08	ppb	AL=15	0	9.0	Corrosion of household plumbing systems.	NO
Haloacetic acids	09/27/07	ppb	60	****	2.6	By product of drinking water disinfection	NO
Barium	08/28/07	ppm	2	2	0.04	Erosion of natural deposits	NO

Well 02: Bayside Forest (Off-line) *[Well currently not in use]*

Substance	Date Tested	Unit	MCL	MCLG	Level Detected	Possible Sources	Violation
Chloroform	08/02/04	ppb	80	-	5.7	N/A	NO
Bromodichloromethane	08/02/04	ppb	80	0	2.4	N/A	NO
*Arsenic	03/11/08 06/13/08 08/12/08 11/05/08	ppb	10	0	7.6 7.0 8.0 6.0	Erosion of natural deposits	NO NO NO NO
Sodium	08/28/07	ppm	**DWEL 20	-	10.0	N/A	NO
Fluoride	05/09/07	ppm	***SMCL 2.0	-	0.2	N/A	NO
Magnesium	05/09/07	ppm	unregulated	-	11.0	N/A	NO
Sulfate	05/09/07	ppm	***SMCL 250	-	9.5	N/A	NO
Iron	05/09/07	ppm	***SMCL 0.3	-	0.8	N/A	NO
Manganese	05/09/07	ppm	***SMCL .05	-	0.02	N/A	NO
Total Dissolved Solids	05/09/07	ppm	500	-	150	N/A	NO
Barium	08/28/07	ppm	2	2	0.005	Erosion of natural deposits	NO
Chloride	05/09/07	ppm	***SMCL 250	-	0.95	N/A	NO
Silica	05/09/07	ppm	unregulated	-	4.4	N/A	NO
Turbidity	05/09/07	NTU	5	5	2.6	N/A	NO
Calcium	05/09/07	ppm	unregulated	-	22	N/A	NO
Dibromochloromethane	08/02/04	ppb	80	0	1.0	N/A	NO
Alkalinity, carbonate	05/09/07	ppm	unregulated	-	140	N/A	NO

***Arsenic:** While your drinking water meets U.S. Environmental Protection Agency's (EPA's) standards 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.

****DWEL (Drinking Water Equivalent Level)**: A lifetime exposure concentration protective of adverse, non-cancerous health effects, which assumes all the exposure to a contaminant is from a drinking water source.

*****SMCL (Secondary Maximum Contaminant Level)**: Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects, such as taste, odor or color.

******Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:

Haloacetic acids: dichloroacetic acid (zero); trichloroacetic acid (0.3mg/L)

Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06mg/L)

Water Quality Table Footnotes

The lead and copper results are reported from tests taken within customers' dwellings. There is no lead and copper in the raw water. Although we ran tests for many constituents, only the listed substances were found. They are all below the MCL required.

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. Calvert County Water and Sewerage 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 two minutes before using the 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 (800) 426-4791 or at http://www.epa.gov/safewater/lead.

Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline by calling (800) 426-4791.

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 animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
(D) Organic chemical contaminants, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
(E) 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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immunocompromised 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 persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA's Safe Drinking Water Hotline by calling (800) 426-4791.

Source Water Assessment

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted Source Water Assessments for 36 community water systems in Calvert County, including the Chesapeake Heights water system. 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, and 3) determination of the susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

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 Chesapeake Heights water supply is not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. However, it was determined that arsenic, a naturally occurring contaminant, does pose a risk to the water supply. The susceptibility of the water supply to Radon will depend upon the final MCL that is adopted for this contaminant.

National Primary Drinking Water Regulation Compliance

This report was prepared using CCR Builder and technical assistance provided by the American Water Works Association. We'll be happy to answer any questions about Calvert County Water and Sewerage Division and the water quality in the Chesapeake Heights water system. Call Barry King, (410) 535-1600, ext. 2329, Monday through Friday, 8 a.m. – 4 p.m.