CHARLES COUNTY MARYLAND
Where Eagles Fly

2012
Annual Drinking Water Quality Report
Mt. Carmel Community – MD0080030
Charles County, Maryland
Prepared by the Department of Public Works
Utilities Division

We are pleased to present the Annual Drinking Water Quality Report for the Mt. Carmel Community for the period of January 1, 2012 through December 31, 2012. This report informs you about the quality of the water and services we deliver to you every day. This report is provided in compliance with Federal regulations and is updated annually.

Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to protecting water resources, improving the water treatment process, and ensuring the quality of your water meets or exceeds all local, State, and Federal standards and regulations. We are confident the drinking water from the Mt. Carmel system is safe and meets all Federal and State requirements.

Usted puede obterner esta información en español, llamando al Departamento de Obras Públicas División de Utlidades en 301-609-7400.

The source of the drinking water for the Mt. Carmel system is the Patapsco Aquifer. An aquifer is an underground reservoir or deposit of water that is tapped by drilling wells and pumping the water to the surface for distribution. The earth between the surface and the underground aquifer helps to purify the water, making it easier to treat the water supply before it is pumped into the water distribution system. The Mt. Carmel system is served by 2 wells.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade, such as microbes, inorganic or organic chemicals, and radioactive substances. 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 Drink Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminates in drinking water than the general population. The elderly, infants, and immunocompromised persons, such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) or other immune system disorders, can be at a higher risk of infection from contaminates. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency/Center for Disease Control (EPA/CDC) guidelines to reduce the risk of infection are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The Department of Public Works, Utilities Division, routinely monitors the Mt. Carmel system for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring efforts and identifies the year a contaminant was tested. The results of testing for contaminates which are not regulated are listed in the Unregulated Contaminants section. Definitions of key terms are presented below the table.

Mt. Carmel System

Test Results						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Alpha emitters (2012)	N	3.5	pCi/L	0	15	Erosion of natural deposits
Beta emitters (2007)	N	3	pCi/L	0	50	Decay of natural and man-made deposits
Combined radium (226 & 228) (2012)	N	<1.2	pCi/L	0	5	Erosion of natural deposits
Combined Uranium (2006)	N	0.125	pCi/L	0	30	Erosion of natural deposits
Inorganic Contaminants						
Barium (2010)	N	0.13	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (2010)	N	<0.2	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Distribution (2011)	N	0	ppm	0	AL= 0.015	Corrosion of household plumbing systems, erosion of natural deposits
Copper Distribution (2011)	N	0.27	ppm	1.3	AL= 1.3	Corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives
Beryllium (2010)	N	0.0005	ppm	.004	.004	Discharge from metal refineries and coal-burning factories; discharge from electrical aerospace and defense industries
Nitrate (2012)	N	1.0	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
TTHMs [Total Trihalomethanes] Distribution (2010)	N	1.83	ppb	0	80	By-product of drinking water chlorination
HAA5s Haloacetic Acids Distribution (2010)	N	0	ppb	0	60	By product of drinking water chlorination
Toluene (2006)	N	6.9	ppm	1	1	Discharge from petroleum factories
1,2,4-Trimethylbenzene	N	0.7	ppb	70,000	70,000	Discharge from textile factories
Xylenes, Total(2012)	N	2.3	ppb	10,000	10,000	Discharge from petroleum factories; discharge from chemical factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
Di (2 ethylhexyl) phthalate (2008)	N	0.51	ppb	0	6	Discharge from rubber and chemical factories
Unregulated Contaminants						
Chloroform (2012)	N	0.7	ppb	N/A	N/A	By-product of drinking water chlorination
Sodium (2010)	N	30	ppm	N/A	N/A	Erosion of natural deposits
Radon – 222 (2008)	N	294	pCi/L	N/A	N/A	Erosion of natural deposits

Definitions of Key Terms

- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.
- 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 safety.
- 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.
- Non-Detects (ND) – The laboratory analysis indicates the contaminant is not present.
- Parts per billion (ppb) or Micrograms per liter (µg/L) – The equivalent of 1 minute in 2,000 years or a single penny in $10,000,000.00
- Parts per million (ppm) or Milligrams per liter (mg/L) – The equivalent of 1 minute in 2 years or a single penny in $10,000.00.
- Picocuries per liter (pCi/L) – A measure of the radioactivity in water.

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 experiencing adverse health effects from the contaminant. The presence of some contaminants in drinking water is unavoidable, but we make every effort to keep your drinking water at or below the levels specified by law as being safe for consumption.

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 Department of Public Works, Utilities Division, 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's Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Nitrates in drinking water at levels above 10 ppm are a health risk for infants younger than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for a short period of time because of rainfall or agricultural activity. If you are caring for an infant, you should seek advice from your health care provider.

Conserving water saves you money!

Approximately sixty percent of total household water supply is used inside the home and forty percent is used outside the home. A few simple changes can reduce water usage. Run the dishwasher only when full. Use a dishpan or plug the sink when hand-washing dishes. Run full loads of laundry instead of many small loads. Pull weeds to decrease competition for water. Repair or replace leaking hoses and sprinklers.

The staff of the Department of Public Works, Utilities Division, works diligently to provide top quality water and excellent customer service. All customers are urged to protect our valuable water resources and practice conservation to ensure a sustainable water supply for our community. If you have any questions concerning this report or any aspect of your water utility, please contact Sam Simanovsky, Chief of Operations and Maintenance, at 301-609-7400.

Department of Public Works
Utilities Division
5310 Hawthorne Road
La Plata, Maryland 20646
Phone 301-609-7400
Fax 301-609-7413
E-mail: SimanovS@charlescounty.org