

Thirteenth Annual Drinking Water Quality Report –2010

City of Havre de Grace

PWSID # 0120012

We are pleased to present to you the 13th Annual Water Quality Report for 2010. Our constant goal is to provide you with a safe and dependable supply of drinking water. The source of our drinking water is the **Susquehanna River**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons, such as persons with cancer, those undergoing chemotherapy, or who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. Anyone with questions should seek advice about drinking water from their health care providers.

This report shows the **quality of the water as pumped to your home**, 365 days each year, and what it means. If you have any questions about this report or concerns about your water utility, please call **410-939-1070** anytime day or night. We want our customers to be informed. If you want to learn more, please attend any of our scheduled City Council meetings. They are held on **the first and third Monday of each Month (excluding Holidays) at 7:00 p.m.**

The City of Havre de Grace routinely monitors for contaminants in your drinking water in accordance with Federal and State laws. This table shows the results of our monitoring for the period of **January 1st to December 31st, 2010**. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following **definitions**:

Action Level – *The concentration of a contaminant which triggers treatment or other requirements which a water system must follow.*

Maximum Contaminant Level Goal (MCLG) – *The “Goal” is 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.*

Non-Detects (ND) – *Laboratory analysis indicates that the constituent is not present.*

Nephelometric Turbidity Unit (NTU) – *Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.*

Parts per million (ppm) or Milligrams per liter (mg/l) – *One part per million corresponds to one minute in two years or a single penny in \$10,000.*

Parts per billion (ppb) or Micrograms per liter – *One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.*

Picocuries per liter (pCi/L) – *Picocuries per liter is a measure of the radioactivity in water.*

Maximum Contaminant Level (MCL) – *The “Maximum Allowed” 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. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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 having the described health effect.*

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

Waivers were granted by MDE for Asbestos, Cyanide and Nitrite based on past testing results that indicate levels of these contaminants have been consistently low, non-existent or their common sources are not present.

Improvements to your Water Treatment Plant. In our continuing efforts to provide excellent quality and sufficient quantities of water for drinking and for fire protection, it has been necessary to make improvements in our water system. The costs of the improvements which are quality related are reflected in the water bills. Increased quantity needs are met through connection charges. In 2006 the Mayor appointed a task force to study the water and sewer systems. The task force recommended a rate increase from \$3.45 to \$4.80. The increase is being implemented over time to minimize the financial impact on our citizens. The first rate increase was five percent in July 2009. There was no rate increase in 2010. The second rate increase proposed for July 1, 2011 is \$4.35 per thousand gallons, which is about ten percent. These increases are necessary due to rising cost of energy and chemicals, additional testing requirements from EPA, lack of rate increases for many years along with the aging treatment equipment and pipes carrying water to your home and business.

Completed Upgrades: First: The water meters for each customer have all been upgraded to automated computer read meters. This new technology allows for a decrease in the man-hours needed for meter reading and billing, which helps us to keep cost down. Second: The water main on Bourbon Street has been upgraded to improve fire protection and pressure.

Upgrades Underway: With the assistance of a grant from the Maryland Department of the Environment, a new water main will be installed on Lewis Lane. This improvement will provide a loop in our system improving flow and a second feed to Revolution Street. The water main on Chesapeake Drive will be extended to connect with Jerry Foster Way, creating a loop and allowing us a second feed to the area south of Revolution Street and west of Juniata Street. The water main on Giles Street will be replaced with a larger main to improve fire protection and pressure.

Planned upgrades: Continued improvements and replacements in Old Downtown as listed in our Water System Master Plan include; 1) installing a larger replacement water main from Juniata Street at Erie to Superior Street at Ohio, improving water flow to our storage tank; 2) improvements to the Water Treatment Plant to include new chemical feed systems to increase efficiency and safety and to meet the increased quantity of water to be treated in the future.

Contaminant	Violation Y/N	Level Detected	Unit of Measure-defined on front page	MCL	MCLG	Likely source of contamination
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Radioactive Contaminants

Beta/photon emitters	N	1.5 in 2010	pCi/l	4	0	Decay of natural and man-made deposits
Alpha emitters	N	ND-2010	pCi/l	15	0	Erosion of natural Deposits
Combined radium	N	ND-2004	pCi/l	5	0	Erosion of natural Deposits

Inorganic Contaminants

Barium	N	.028	ppm	2.0	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	.085 2010	ppm	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	.90	ppm	4.0	4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	ND 2010	ppm	AL=.015	0.0	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	N	ND	ppb	2.0	2.0	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen)	N	1.16	ppm	10.0	10.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Synthetic Organic Contaminants including Pesticides and Herbicides-not detected

Volatile Organic Contaminants- not detected

Disinfection by Products

Chlorine	N	.43 to 3.45	ppm	4.0	NA	Drinking water chlorination
TTHM [Total Trihalomethanes]	N	21.87 to 27.04 Range (rolling avg.)	ppb	80.0	0	By-product of drinking water chlorination
-HAA5' (Haloacetic acids)	N	27.22 to 27.92 Range (rolling avg.)	ppb	60.0	NA	By-product of drinking water chlorination

Microbiological Contaminants

Cryptosporidium	N	Not detected			0	Human and animal fecal wastes
Giardi Lambia	N	Not detected			0	Human and animal fecal wastes
Total coliforms	N	0.0%		<5%	0	Naturally present in the environment
Total Organic Carbon	N	1.26 to 1.62 rolling quarterly annual average	TT	TT	NA	Naturally present in the environment

Turbidity	N	Range 0.011 to 0.250	NTU	<0.5	0	Soil run-off
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Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCL	MCLG	Likely source of contamination
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Non-regulated Contaminants

Sodium	N	17 to 30	ppb	NA	NA	Naturally occurring
Chloride	N	42 to 64	ppm	NA	NA	Naturally occurring
Alkalinity	N	52 to 86	ppm	NA	NA	Naturally occurring
Hardness	N	68 to 120	ppm	NA	NA	Naturally occurring
Sulfate	N	46.1	ppm	NA	NA	Naturally occurring
pH	N	7.54 to 7.64	Std	NA	NA	Naturally occurring
Chloroform	N	21	ppb	NA	0	Byproduct of drinking water chlorination
Dibromochloromethane	N	2.4	ppb	NA	0	Byproduct of drinking water chlorination
Bromodichloromethane	N	10	ppb	NA	0	Byproduct of drinking water chlorination

What does this mean?

As you can see by the table, our system had **no violations**. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water **IS SAFE** at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. **All 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 Environmental Protection Agency's Safe Drinking Water Hot line at 1-800-426-4791.

Sodium: Although there are no regulations for sodium, as a precaution, the City always notifies the Hospital, Nursing Home, St. John Towers, The Graw and bottlers by telephone if the level reaches 50 PPM. We notify the general public and physicians by press release if levels exceed 100 PPM. Sodium levels of 100 PPM are not recommended for persons on a salt restricted diet. If you are sodium restricted or on kidney dialysis, you may call the water plant and be placed on the sodium notification list. The severe drought of 2002 produced some high sodium levels. Other years with high sodium levels were 1992 and 1983.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. 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 Havre de Grace Water Filtration Plant 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>.

Nitrates: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

EPA/CDC has a guideline on appropriate means to lessen the risk of infection by *Cryptosporidium* and other Microbiological contaminants, it is available from the Safe Drinking Water Hot line (800) 426-4791. We have **not** detected *Cryptosporidium* in the finished water or source water.

The Safe Drinking Water Act (SDWA) requirements are constantly being changed as science and technologies improve. The plant was built in 1954 and was upgraded in 1983. Equipment maintenance and replacement is ongoing to keep the water quality, technology and operations in top form and to meet the new regulations of the Safe Drinking Water Act. Currently, your water plant is not only meeting all of these requirements, but is exceeding them.

Measures that residents can take to preserve the quality of their water are:

Flush your water heaters, clean screens on your spigots; refrigerate your drinking water as cold water always tastes better than warm, store water in case your water service is temporarily disrupted.

Upon waking or returning home after being away, run your cold water at least 30 seconds so you are receiving the fresh water from the main instead of the dormant water in your pipes.

Other things you can do:

You should always make sure that the water shut off valve in your home is operable in case you have a leak and need to shut the water supply off immediately.

Put food color in the back of your toilet tanks once in awhile when you go to bed and don't flush the toilet. If you see the color in the toilet bowl in the morning you have a leak and can repair it immediately. Leaky faucets should be repaired immediately as a small drip can waste thousands of gallons of water with a substantial increase in the water bill.

Thank you for allowing us to continue providing your family with clean, quality water this year. Please call City Hall at 410-939-1800 or the Water Treatment Plant at 410-939-1070 if you have questions. Staff at the City of Havre de Grace Water Plant work around the clock to provide quality water to every tap.

We need your help. Report illegal connections or uses:

If you see tankers or contractors hooking up to a fire hydrant and their vehicles don't have a City emblem, call the police immediately, ***stealing water is a crime***. Opening a hydrant stirs the water and can create turbid colored water.

Any changes in pressure or water quality should be reported as soon as possible so we may take appropriate action. Some customers have problems with taste and odor. These customers may purchase bottled water instead of calling their utility for a resolution to the problem. Call the water plant so that we can address your problems and hopefully correct the situation. ***Your water plant is open 24-hours a day seven days per week and may be reached at 410-939-1070.***

We ask that our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.