

Eleventh Annual Drinking Water Quality Report –2008
City of Havre de Grace
PWSID # 0120012

We are pleased to present to you the 11th Annual Water Quality Report for 2008. 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*, 366 days this 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 according to Federal and State laws. The table shows the results of our monitoring for the period of **January 1st to December 31st, 2008**. In the 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.

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCL	MCLG	Likely source of contamination
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Radioactive Contaminants

Beta/photon emitters	N	3 2007	pCi/l	4	0	Decay of natural and man-made deposits
Alpha emitters	N	1 2007	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	.038	ppm	2.0	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	0.142 2007	ppm	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	0.43to .96	ppm	4.0	4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	Less than 0.005 2007	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	ND	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	0.53 to 3.86	ppm	4.0	NA	Drinking water chlorination
TTHM [Total Trihalomethanes]	N	27.09 to 34.46 Range (rolling avg.)	ppb	80.0	0	By-product of drinking water chlorinating
-HAA5' (Haloacetic acids)	N	24.24 to 33.49 Range of rolling avg	ppb	60.0	NA	By-product of drinking water chlorinating

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	.9 to 2.10 rolling quarterly annual average	TT	TT	na	Naturally present in the environment
Turbidity	N	Range 0.010 to 0.269	NTU	<0.5	0	Soil run-off

Non-regulated Contaminants

Sodium	N	15 to 27	ppb	NA	NA	Naturally occurring
Chloride	N	39 to 60	ppm	NA	NA	Naturally occurring
Alkalinity	N	44 to 85	ppm	NA	NA	Naturally occurring
Hardness	N	64 to 132	ppm	NA	NA	Naturally occurring
Sulfate	N	46.1	ppm	NA	NA	Naturally occurring
pH	N	7.14 to 7.59	Std	NA	NA	Naturally occurring
Chloroform	N	14	ppb	NA	0	Byproduct of drinking water chlorination
Dibromochloromethane	N	13.8	ppb	NA	0	Byproduct of drinking water chlorination
Bromodichloromethane	N	8.9	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: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Additional information is available from the Safe Drinking Water Hot line (1-800-426-4791). The lead and copper study is done every three years with the next testing in 2010.

Nitrates: 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 contaminates, 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.

Improvements to your Water Treatment Plant. In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements are reflected in the rate structure. A rate increase was proposed, but not enacted, for water consumed in 2006. A task force has been formed to study the rates and they may be adjusted in 2009. This increase is due to inflation, the rising cost of energy and chemicals as well as additional testing requirements from EPA.

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.

Completed Upgrades: The water mains in Revolution Street and Webb Lane have been cleaned and lined, improving water quality on Webb Lane and restoring flow to Old Bay Lane. A new generator has been installed to provide water without interruption during power outages. New pumps have been installed to increase the quantity of water distributed. Water Model Calibration is completed.

Upgrades Underway: Chemical feed improvements (for efficiency), safety improvements and SCADA improvements (for more efficient operations) are under engineering contract.

Planned upgrades: Install a larger replacement water main from Juniata Street at Erie to Superior Street at Ohio, improving water flow to our storage tanks. Cleaning and lining in Old Downtown and the replacement of some water mains in Old Downtown as identified in our Water Master Plan.

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.