

June 1, 2005

2005 Annual Drinking Water Quality Report

Grasonville Water Treatment Facility
5439 Main Street, Grasonville, Maryland
MDE Public Water System ID No. 170020

This report is required by the federal Safe Water Drinking Act Amendment of 1996 and is designed to educate you about the quality of the water we deliver to you every day. We are pleased to inform you that your drinking water is safe and meets all federal and state requirements. Our constant goal is to provide you with a safe and dependable supply of 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 quality of your water.

The Sanitary District routinely monitors for constituents in your drinking water according to Federal and State laws. **Your water is supplied by the Grasonville water treatment facility that utilizes groundwater from a two 10-inch wells 950 feet deep into the Magothy aquifer.** The enclosed table indicates the results of our monitoring for the period of January 1 to December 31, 2004. All drinking water, including bottled drinking water, may be reasonably expected to contain at least a small amount of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

The Sanitary District's water staff consists of nine personnel with a combined experience of 50 years. Each operator is required to obtain 30 hours of formal training every 3 years in water treatment and water distribution operations.

We want our customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact me at the above number or Tim Wynne, Chief Water Operator at 410-643-6813. Major decisions affecting the water utility are made by the County Commissioners, sitting as the Sanitary Commission. Should you wish to attend, the Sanitary Commission meets every second and fourth Tuesday at 6:00 p.m. in their meeting room located at 107 North Liberty Street, Centreville, Maryland.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). *(Please note this paragraph is mandated by EPA. Cryptosporidium is a microbe found in some surface water supplies such as rivers or reservoirs. It is not found in groundwater that is where all of our water supplies originate.)*

In the following table you will find many terms and abbreviations you might not be familiar with. To help you to better understand these terms we've provided the following definitions:

Non-Detect - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

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

Action Level (AL) - the concentration of a contaminant which, if exceeded, 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.

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.

Please note 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 potential negative health effect anticipated.

In our continuing effort to maintain a safe and dependable water supply it is often necessary to make improvements in your water system. The costs of these improvements, as well as the cost to retain experienced staff, are reflected in the small annual rate increases you may experience every July. **We are in the process of adding an 'ion-exchange' unit to the Grasonville plant in order to better remove the iron that is naturally present in the groundwater.**

Very truly yours,

Alan L. Quimby, P.E.
Chief Sanitary Engineer

TEST RESULTS

2004 Grasonville Water Treatment Plant

| Contaminant | Units | Level Detected | MCL | MCLG | Likely Sources |
|--------------------------|--------|----------------|---------|--------|---------------------|
| Gross Alpha ¹ | rem/yr | Non-Detect | 15000 | 0 | Natural Deposits |
| Gross Beta ¹ | μrem/y | 240 | 4000 | 0 | Natural Deposits |
| Antimony | ppb | Non-Detect | 6 | 6 | Oil Refineries |
| Arsenic | ppb | Non-Detect | 50 | n/a | Natural Deposits |
| Barium | ppb | 58 | 2000 | 2000 | Natural Deposits |
| Beryllium | ppb | Non-Detect | 4 | 4 | Metal Refineries |
| Cadmium | ppb | Non-Detect | 5 | 5 | Galvanized Pipes |
| Chromium | ppb | Non-Detect | 100 | 100 | Steel Mills |
| Copper | ppb | 340 | AL=1300 | 1300 | Plumbing Corrosion |
| Cyanide | ppb | Non-Detect | 200 | 200 | Metal Refineries |
| Fluoride | ppb | 350 | 4000 | 4000 | Natural Deposits |
| Lead | ppb | Non-Detect | AL=15 | 0 | Plumbing Corrosion |
| Mercury | ppb | Non-Detect | 2 | 2 | Cropland Runoff |
| Nitrate | ppb | 80 | 10,000 | 10,000 | Fertilizer Runoff |
| Nitrite | ppb | Non-Detect | 10,000 | 10,000 | Fertilizer Runoff |
| Selenium | ppb | Non-Detect | 50 | 50 | Oil Refineries |
| Thallium | ppb | Non-Detect | 2 | 0.5 | Ore Processing |
| VOC ² | varies | Non-Detect | varies | varies | Industry/Pesticides |

1. Gross Alpha and gross Beta are a measure of naturally occurring radioactive contaminants.
2. Tests for 45 Volatile Organic Compounds (VOC) was taken. The following three components, which are unregulated, were detected: Chloroform (5.7 ppb), Bromodichloromethane (1.6 ppb), and Dibromochloromethane (0.5 ppb).

Test Dates:

Lead & Copper – July 27, 2004
 Nitrate & Nitrite – April 13, 2004
 VOC – April 26, 2004
 All Others – April 14, 2004

WATER CONSERVATION TIPS

I. Introduction

According to the American Water Works Association, the average per person indoor water use in the United States is 69.3 gallons per day. The breakdown of this use is shown below. As you will note, leaks are responsible almost 13.7%, or 9.5 gallons per day (gpd).

| | | | |
|-----------------|------------------|------------|-----------------|
| Toilets | 26.7% (18.5 gpd) | Leaks | 13.7% (9.5 gpd) |
| Clothes Washing | 21.7% (15.0 gpd) | Dishwasher | 1.4% (1.0 gpd) |
| Showers & Baths | 18.5% (12.8 gpd) | Other | 2.2% (1.6 gpd) |
| Faucets | 15.7% (10.9 gpd) | | |

II. Toilets – Toilets use the majority of water in your home.

- a. Older toilets (installed prior to 1994) use 3.5 to 7 gallons per flush. Replacing an older toilet can save the typical household 7,900 to 21,700 gallons per year.
- b. You can also fill one-half gallon milk bottles with water and place in the tank. Doing so will then save one-half gallon per flush.
- c. Check toilets periodically for leaks. This can be done by putting food coloring in the tank (not the bowl) and waiting an hour. If the color is in the bowl after an hour, the toilet is leaking. You may need to clean or replace the flapper.
- d. Don't use toilets as a trash can. Flush only when necessary.

III. Bathing - The third highest water use (and the second highest energy use) is bathing.

- a. If your showerhead can fill a one-gallon bucket in less than 20 seconds, replace it with a water efficient showerhead.
- b. A short shower instead of a bath will save 20 gallons of water.
- c. When taking a bath, don't let the cold water escape when you first turn on the hot water, the hot water which follows will warm the initial burst of cold water.

IV. Appliances

- a. Clothes washers use 30-35 gallons per load. A high efficiency model will use 30% less water and 40-50% less energy.
- b. A full dishwasher uses as much as 25 gallons per load, but a full dishwasher uses less water than washing the same load by hand. Newer dishwashers should not require pre-rising of the dirty dishes in the sink.

V. Other

- a. Install aerators on all faucets.
- b. Turn off water when brushing teeth.
- c. Keep water in the refrigerator to drink, rather than letting water run into the sink while waiting for the water to get cool.
- d. Keep garbage disposal use to a minimum.