THE DEPARTMENT OF PUBLIC WORKS
OF QUEEN ANNE'S COUNTY
SANITARY DISTRICT
310 BATEAU DRIVE
PO BOX 10
STEVENSVILLE, MARYLAND 21666
(410) 643-3535 FAX: (410) 643-7364
TDD: (410) 758-2126

Water Supply Program
JUN 18 2010
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COUNTY COMMISSIONERS

ERIC S. WARGOTZ, M.D., Countywide
COURTNEY M. BILLUPS, District 1
PAUL L. GUNTHER, District 2
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CAROL R. FORDONSKI, District 4

TODD R. MOHN, P.E.
Chief Administrative Officer

ALAN L. QUIMBY, P.E.
Chief Sanitary Engineer

June 1, 2010

2010 Annual Drinking Water Quality Report

Bayside-Queens Landing Water Treatment Facilities
103 Tackle Circle & 131 Queens Landing Drive Chester, Maryland
MDE Public Water System ID No. 170007
&
Bridgepointe - Kent Island Village Water Treatment Facilities
9025 Bridgepointe Drive & 1839 Anchorage Drive, Chester, Maryland
MDE Public Water System ID No. 170017

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. **However we are aware that we still have occasional iron issues (brown water) that can be a significant inconvenience, but is not a health issue.** 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.

In 2008, the owners of the Gibson's Grant development were required to connect the Bayside-Queen's Landing water system to the Bridgepointe-Kent Island Village water system. This interconnector wasn't utilized on a regular basis until 2009. As such, your water can now supplied by four water treatment facilities. The two primary plants, which both utilize groundwater from the Magothy aquifer, being the Bayside water facility, which utilizes a single 10-inch well 670 feet deep (a second well is currently under construction – also being paid for by Gibson's Grant) and the Bridgepointe water facility, which utilizes groundwater from two 6-inch wells 710 feet deep. The third and fourth facilities, which utilize groundwater from the Aquia Greensand aquifer, are the Queen's Landing water treatment facility, which utilizes two 10 inch wells 280 feet deep, and the Kent Island Village water treatment facility, which utilizes a single 6 inch well 290 feet deep. The State restricts the amount of Aquia water we can use so these two plants are used sparingly.

The Sanitary District routinely monitors for constituents in your drinking water according to Federal and State laws. The enclosed table indicates the results of our monitoring for the period of January 1 to December 31, 2009. 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 60 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. 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 the second Tuesday at 10:00 a.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 EPA mandates this paragraph. Cryptosporidium is a microbe found in some surface water supplies such as rivers or reservoirs. It is not found in groundwater, which 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. Also equivalent to milligrams per liter (mg/l).

Parts per billion (ppb) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000. Also equivalent to micrograms per liter (μg/l).

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.

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.

Very truly yours,

Alan L. Quimby

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

TEST RESULTS

2009 Bridgepointe – Kent Island Village – Bayside – Queen's Landing Water Treatment Plants

REGULATED CONTAMINENTS

Contaminant	Units	Level Detected Bridgepointe	Level Detected Kent Island Village	Level Detected Bayside	Level Detected Queen's Landing	MCL	MCLG	Likely Sources
Gross Alpha[1]	µrem/yr	160	Non-Detect	160	320	15,000	0	Natural Deposits
Gross Beta[1]	µrem/yr	na	Non-Detect	240	320	4000	0	Natural Deposits
Barium	ppb	Non-Detect	Non-Detect	Non Detect	150	2000	2000	Natural Deposits
Copper	ppb	93	93	214	214	AL=1300	1300	Plumbing Corrosion
Di(2-ethylhexyl) phthalate[2]	ppb	0.7	Non-Detect	0.5	2.6	6	0	Discharge from rubber or chemical factories
Flouride	ppb	**Non Detect**	**250**	**240**	**Non Detect**	4000	4000	Fertilizer Runoff
Nitrate	ppb	**Non Detect**	Non-Detect	**Non Detect**	**Non Detect**	10,000	10,000	Fertilizer Runoff
Haloacetic Acids[3]	ppb	6	Non-Detect	Non Detect	Non Detect	60	0	Disinfection Byproducts
Trihalomethanes[3]	ppb	9	Non-Detect	1	1	100	0	Disinfection Byproducts

UNREGULATED (but detected) CONTAMINENTS

Contaminant	Units	Level Detected Bridgepointe	Level Detected Kent Island Village	Level Detected Bayside	Level Detected Queens Landing
Bromodichloromethane[2]	ppb	0.9	Non-Detect	6.5	0.6
Chloroform[2]	ppb	3.2	Non-Detect	**1**	**1**
Chloride	ppm	Non-Detect	Non-Detect	Non-Detect	1.5
Dibromodichloromethane[2]	ppb	Non-Detect	Non-Detect	Non-Detect	1.5
Iron	ppb	390	Non-Detect	240	167
Sodium	ppm	**59**	**44**	**59**	**10**
Sulfate	ppm	**49**	**61**	**53**	**31**

1. Gross Alpha and Gross Beta are a measure of naturally occurring radioactive contaminants.
2. The Maryland Department of the Environment (MDE) tests for Volatile Organic Compounds (VOC) and Synthetic Organic Compounds (SOC).

Test Sample Dates: (full test results available upon request)

[3]Disinfection Byproducts – May 15, 2007
Lead & Copper – December 31, 2007
Nitrate & Nitrite – **June 10, 2008**
Inorganics – **April 27, 2009 (BP), May 12, 2009 (KIV), April 27, 2009 (BS & QL)**
VOC/SOC – April 1, 2008 (BP), 2-15-06 (QL), **May 13, 2009 (KIV & BS),**
Radioactives – September 4, 2004 (KIV), May 15, 2007 (BP), 3-12-07 (QL)
All Others – April 6, 2006

3. **Bold** indicates new results for this year's report; most contaminants are not required to be tested annually

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 for 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 and will not affect performance.
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 trashcan. Flush only when necessary.
e. Do not flush unused medicines down the toilet; damage to the environment may result.

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 are the second biggest water user which uses 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.

VI. Irrigation

a. A single yard sprinkler uses as much water in <u>one hour</u> as a typical home uses in 24 hours. If you water one hour a day for a week, you have doubled your water use for that week.
b. Unless you have a 'yard meter' used strictly for irrigation, you will also be paying a sewer fee for the irrigation water.
c. Irrigate sparingly, or use alternative means such as rain barrels.