Annual Drinking Water Quality Report

Somerset County Sanitary District, Inc.
Princess Anne Subdistrict
PWSID 019002

We are pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. 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. Our water sources are seven wells: Well # 3 (Rest Stop) at a depth of 240 feet, Well # 4 (Irving Avenue) at a depth of 210 feet, Well # 5 (Crisfield Lane) at a depth of 210 feet, Well # 6 (Abbey Lane) at a depth of 191 feet, Well # 7 (Industrial Park) at a depth of 240 feet and Well # 8 (Ridge Road) at a depth of 191 feet, 6 inches. These wells draw from the Manokin Aquifer, which is treated and pumped into our water distribution system. Well # 9 (Washington High) is 1,470 feet deep and draws from the Patapsco Aquifer.

We are pleased to report that our drinking water is safe and meets federal and state requirements. The following report is provided in compliance with federal regulations and will be provided annually. This report outlines the quality of our drinking water and what that quality means.

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 (800-426-4791).

If you have any questions about this report, please contact Sanitary District Manager, Robert C. Street, Jr. at 410-651-3831. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any regularly scheduled meeting. They are normally held on the second and fourth Thursdays of each month at 2 p.m. in the Sanitary District Conference Room, Room 217, Somerset County Office Complex, Princess Anne, Maryland.

The Somerset County Sanitary District, Inc. routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2009. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

Definitions

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:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
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.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Action Level (A.L.) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) 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.
***Maximum Contaminant Level Goal* (MCLG)** - The "Goal"(MCLG) 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.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
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.

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Non-Detected Contaminants: Following is a list of potential drinking water substances that the Sanitary District is required to test for, but which have not been detected in the water supply in the past year. We are only required to provide information on those substances detected in the finished water supply, but are providing a list of the non-detected contaminants in each well in order to better inform our customers about the extent of testing that is done to their water supply. The number of the well tested is in parenthesis following the name of the contaminant.

Contaminant Nitrate (3,4,5,6,7,8,9)

Detected Contaminants *NOT* in Violation of the MCL: In addition to these undetected substances, the Sanitary District did find some regulated substances present in the water system at levels below the maximum allowable level (MCL) which is determined safe by the EPA. These substances are shown below, along with MCL and MCLG for each one detected.

Princess Anne Water System

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Total Trihalamethanes	0.035 – 0.114	mg/l	0.080	0.080	By-product of disinfection using chlorine when natural and/or manmade organic compounds are present in drinking water. Concentration can be dependent on ambient temperature.
Bromodichloroethane 2943	<0.0005 – 0.040	mg/l	LRAA	LRAA	
Bromoform 2942	<0.0005 – 0.003	mg/l			
Chloroform 2941	0.003 – 0.049	mg/l			
Dibromochloromethane 2944	<0.0005 – 0.022	mg/l	**LRAA = 0.073**		

Though a single concentration exceeded 0.080 mg/l the Locational Running Annual Average (LRAA) Limit of 0.080 mg/l was not exceeded.

2. Total Haloacetic Acids	0.004 – 0.033	mg/l	0.060	0.060	By-product of disinfection using chlorine when natural and/or manmade organic compounds are present in drinking water. Concentration can be dependent on ambient temperature.
Monochloroacetic Acid MCAA	<0.001 – 0.001	mg/l	LRAA	LRAA	
Monobromoacetic Acid MBAA	<0.001	mg/l			
Dichloroacetic Acid DCAA	0.002 - 0.014	mg/l			
Dibromoacetic Acid DBAA	<0.001 – 0.004	mg/l	**LRAA = 0.023**		
Trichloroactetic Acid TCAA	<0.001 – 0.016	mg/l			

Plant ID: Crisfield Lane # 5

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	0.26	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Ridge Road # 8

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	0.44	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Rest Stop # 3

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	0.38	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Industrial Park # 7

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	.2.88	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Hickory Road / Abbey Lane # 6

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	0.29	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Irving Avenue # 4

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	0.38	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Plant ID: Washington High # 9

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	3.51	mg/l	4	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

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Though the samples monitored for **Fluoride did not exceed the Maximum Contaminant Level**, these samples did exceed the secondary standards for fluoride in the Drinking Water. Samples collected in 2009 measured in a range of 0.26 mg/l to 3.51 mg/l. Consequently, the U.S.E.P.A. requires that the Sanitary District provide the following language in this public notice regarding the potential effects of consuming water with fluoride levels in excess of the Secondary Standard. The secondary standard is based on aesthetics and is not a health concern.

Federal regulations require that Fluoride, which occurs naturally in your water, not exceed a concentration of 4.0 mg/l in the drinking water. This is an enforceable standard called a Maximum Contaminant Level or MCL, and it has been established to protect the public health. Exposure to drinking water levels above 4.0 mg/l for many years may result in some cases in crippling skeletal fluorosis, which is a serious bone disorder. Federal law requires that we notify you when monitoring indicates that the fluoride in your drinking water exceeds 2.0 mg/l. This is intended to alert families about dental problems that might affect children under nine years of age. The fluoride concentration of your water exceeds this guideline.

Fluoride in children's drinking water at levels of approximately 1 mg/l reduces the number of dental cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/l may develop dental fluorosis. Dental fluorosis in it moderate and severe forms is a brown staining and /or pitting of the permanent teeth. Because dental fluorosis occurs only when developing teeth (before they erupt from the gums) are exposed to elevated Fluoride levels, households without children are not expected to be affected by this level of fluoride. Families with children under age nine are encouraged to seek sources of drinking water for their children to avoid the possibility of staining and pitting on their teeth. Your water supplier can lower the concentrations of the fluoride in the water so that you will still receive the benefits of cavity prevention while the possibility of staining and pitting is minimized. Removal of fluoride may increase your water cost. Treatment systems are commercially available for home use. Information on such systems is available by calling the Sanitary District or contacting your local hardware or home products dealer.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in the drinking water is primarily from materials and components associated with service lines and home plumbing. The Somerset County Sanitary District Inc. 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

The Sanitary District monitors the drinking water regularly for bacterial contamination using Total and Fecal Coliform and E. Coli as indicator bacteria. No Bacterial Contamination was detected in the year 2009. The Sanitary District monitors the drinking water daily and weekly for pH, Free Chlorine, Total Chlorine, Ortho-Phosphate and Total Phosphate to ensure water quality. The Sanitary District and the Maryland Department of the Environment have monitored for the following groups of contaminates within the last five years: Synthetic Organic Compounds, Volatile Organic Compounds, Metals and Radionuclides. Reports containing the results of these monitoring may be obtained upon request.

As you can see by the table, our system had no violations of the Maximum Contaminant Levels in 2009. 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 Hotline at 1-800-426-4791.
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.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding. Please call our office if you have questions.
We at the Somerset County Sanitary District, Inc. work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

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