Annual Drinking Water Quality Report

Somerset County Sanitary District, Inc.
Rumbley, Frenchtown and Fairmount Subdistricts
PWSID # 0190012

We are pleased to present to you this year's Annual Water Quality 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 the Nevette Muir Road and Upper Hill Road wells. The Nevette Muir Road well has a depth of 1,145 feet. The Upper Hill Road well has a depth of 1,137 feet. Our wells draw from the Potomac Aquifer, which is then treated and pumped, into your water distribution system.

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 the Sanitary District 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 held on the second Thursday of each month at 1 p.m. in the Somerset County Office Complex, Princess Anne, Maryland. Please go to our website to confirm dates and times of meetings at www.somersetmd.us then select *Agencies* and then select *Sanitary District*.

The Somerset County Sanitary District, Inc. 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, 2017. 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 (ug/l)* - 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)* - 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 that a water system must follow.
Action Level Goal *(ALG)* - the concentration of a contaminant in drinking water below which there is no known or expected health risk. ALG's allow for a margin of safety.

Definitions (continued)

Maximum Residential Disinfectant Level – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residential Disinfectant Level – The level of a drinking water disinfectant below which there is no know or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

mrem – millirems per year (a measure of radiation absorbed by the body)

na – not applicable

Average – (Avg.) – Regulatory compliance with some MCL's are based on running annual average of monthly samples.

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why coliform bacteria have been found in a water system.

Level 2 Assessment - A Level 1 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in a water system on multiple occasions.

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 or in the system in order to better inform you about the extent of testing done to the water supply.

1040	Nitrate	1036	Nickel	1015	Cadmium	1005	Arsenic	1075	Beryllium
1045	Selenium	1074	Antimony	1035	Mercury	1020	Chromium	1085	Thallium

2418	1,2,4-Trimethybenzene	2986	1,1,1,2-Tetrachloroethane	2955	Xylenes, Total	2030	P-Isopropyltoluene
2962	p-Xylene	2212	Dichlorodifluoromethane	2965	o–Chlorotoluene	2214	Bromomethane
2966	p-Chlorotoluene	2216	Chloroethane	2976	Vinyl Chloride	2218	Trichlorofluoromethane
2967	m-Dichlorobenzene	2246	Hexachlorobutadiene	2968	o-Dichlorobenzene	2248	Naphthalene
2969	p-Dichlorobenzene	2251	Methyl-Tert-Butyl-Ether (MTBE)			2977	1,1-Dichloroethylene
2378	1,2,4-Trichlorobenzene	2978	1,1-Dichloroethane	2380	cis-1,2-Dichloroethylene		
2979	trans-1,2-Dichloroethylene	2980	1,2-Dichloroethane	2410	1,1-Dichloropropene	2981	1,1,1-Trichloroethane
2412	1,3-Dichloropropane	2982	Carbon Tetrachloride	2413	1,3-Dichloropropene	2983	1,2 – Dichloropropane
2414	1,2,3-Trichloropropane	2984	Trichloroethylene (TCE)	2416	2,2-Dichloropropane	2985	1,1,2-Trichloroethane
2420	1,2,3-Trichlorobenzene	2987	Tetrachloroethene (PCE)	2422	N-Butylbenzene	2408	Dibmethane
2964	Dichloromethane (Methylene Chloride)	2989	Monochlorobenzene			2424	1,3,5-Trimethylbenzene
2990	Benzene	2426	Tert-Butylbenzene	2991	Toluene	2428	Sec-Butylbenzene
2988	1,1,2,2-Tetrachloroethane	2993	Bromobenzene	2430	Bromochloromethane	2992	Ethylbenzene
2994	Isopropylbenzene	2995	m-Xylene	2997	o-Xylene	2996	Styrene
2998	n-Propylbenzene	2944	Dibromochloromethane	2962	p-Xylene		
2943	Bromodichloromethane	2210	Chloromethane	2942	Bromoform		

Detected Contaminants NOT in Violation of the MCL; In addition to these undetected substances that were subject to testing, 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.

Fairmount, Rumbley & Frenchtown Water System

Contaminant	Level Detected	Unit of Measurement	MCL	MCLG	Likely Source of Contamination
1. Total Trihalamethanes	0.7 – 0.9	ppb	80	N/A	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	<0.5	ppb			
Bromoform 2942	<0.5	ppb			
Chloroform 2941	0.7 – 0.9	ppb			
Dibromochloromethane 2944	<0.5	ppb			
2. Total Haloacetic Acids	< 2.0	ppb	60	N/A	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	<1.0	ppb			
Monobromoacetic Acid MBAA	<1.0	ppb			
Dichloroacetic Acid DCAA	<1.0 – 1.3	ppb .			
Dibromoacetic Acid DBAA	<1.0	ppb			
Trichloroactetic Acid TCAA	<1.0	ppb			
3. Radioactive Contaminants					
Beta/Photon Emitters (Gross Beta) Sampled 10/26/2015	0.9 – 1.2	pCi/L	50	0	Decay of natural and man-made deposits.

Contaminant	Level Detected	Unit of Measurement	Action Level (AL)	MCLG	Likely Source of Contamination
4. Lead PB **90**	2.0	ppb	15	0.0	Corrosion of household plumbing systems and/or erosion of natural deposits.
Level detected = 90th percentile					

No sites over Action Level which, if exceeded, triggers treatment or other requirements which a water system must follow.

5. Copper CU **90**	0.015	mg/l	1.3	1.3	Corrosion of household plumbing systems and/or erosion of natural deposits, Leaching from wood preservatives.
Level detected = 90th percentile					

No sites over Action Level which, if exceeded, triggers treatment or other requirements which a water system must follow.

Contaminant	Level Detected	Unit of Measurement	MRDLG	MRDL	Likely Source of Contamination
6. Chlorine	0.9 – 1.2	mg/l	4	4	Water additive to control microbes

Plant ID # 01 Well # 1 (Nevette Muir)

Contaminant	Level Detected	Unit of Measurement	MCL	MCLG	Likely Source of Contamination
1. Fluoride 1025	2.11 - 2.70	mg/l	4	2	Erosion on natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2. Barium 1010	0.031	mg/l	2	2	Discharge from drilling waste. Discharge from Metal finishing and processing
3. Sodium 1052	242	mg/l	n/a	n/a	Erosion of geological and natural salt

Detected Contaminants NOT in Violation of the MCL (cont'd);

Plant ID # 02 Well # 2 (Upper Hill)

Contaminant		Level Detected	Unit of Measurement	MCL	MCLG	Likely Source of Contamination
1. Fluoride	1025	2.11 – 2.90	mg/l	4	2	Erosion on natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2. Barium	1010	0.032	mg/l	2	2	Discharge from drilling waste. Discharge from Metal finishing and processing
3. Sodium	1052	281	mg/l	n/a	n/a	Erosion of geological and natural salt

Though the samples monitored for **Fluoride did not exceed the Maximum Contaminant Level (MCL)**, these samples did exceed the Secondary Maximum Contaminant Level (SMCL) for fluoride in the Drinking Water. Samples collected in 2017 measured in a range of 2.11 mg/l to 2.90 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 SMCL Standard. The SMCL 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 its 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. Children under age nine should be provided with alternative sources of drinking water or water that has been treated to remove Fluoride to avoid the possibility of staining and pitting on their teeth. You may also want to contact your dentist about the proper use by young children of fluoride containing products. 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 significantly 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.

Lead, if present at elevated levels, 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 2017. The Sanitary District monitors the drinking water daily and weekly for pH, Free Chlorine and Total Chlorine to ensure water quality.

The Sanitary District and the Maryland Department of the Environment have monitored for Synthetic Organic Compounds and Metals within the last five years. Reports containing the results of these monitoring may be obtained on request.

As you can see by the table, 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. Please call our office if you have questions.

PUBLIC NOTICE for October 1, 2017 – November 2, 2017 – Monitoring and Reporting Violation of the Safe Drinking Water Act Fairmount, Rumbley & Frenchtown Water System

The Somerset County Sanitary District Inc. is require to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. For October 1, 2017 – November 2, 2017 we did not report results for the Lead and Copper Monitoring by the designated deadline. Both Contaminants were monitored as required in the time period required and the results are included in this Consumer Confidence Report. The results of the monitoring were reported past the deadline because of difficulty in receiving samples from homeowners and because the contract laboratory did not supply the results of the analysis in a timely manner.

PUBLIC NOTICE for October 1, 2017 – December 31, 2017 – Monitoring and Reporting Violation of the Safe Drinking Water Act Fairmount, Rumbley & Frenchtown Water System
Nevette Muir Well (TP01) and Upper Hill Well (TP02)

The Somerset County Sanitary District Inc. is require to monitor your drinking water for Fluoride on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. For October 1, 2017 – December 31, 2017 we did not report results for the Fluoride monitoring for the fourth quarter of 2017 by the designated deadline. Fluoride was monitored as required in the time period required and the results are included in this Consumer Confidence Report. The results of the monitoring were reported past the deadline because the contract laboratory did not supply the results of the analysis in a timely manner.