Annual Drinking Water Quality Report for 2011
The Town of Millsboro
322 Wilson Highway Millsboro, Delaware 19966
PWS ID # DE0000622
June 6, 2012

Omissions' from 2010 CCR have been added to this years' report in Bold Italics

We're 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 source is **groundwater. We have a total of three wells; two draw from the Columbia Aquifer and the third from the Manokin Aquifer.**

The Division of Public Health in conjunction with the Department of Natural Resources and Environmental Control has conducted a source water assessment. If you are interested in reviewing the assessment, please contact **Millsboro Town Hall @ 934-8171** or go on-line @ **http://www.wr.udel.edu/swaphome/swassessments.html**

I'm pleased to report that our drinking water meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact **Kenny Niblett @ 934-8171.** We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on **the first Monday of each month at 7:00 p.m. at the Town Hall, 322 Wilson Highway.**

Public Health, Office of Drinking Water and the Millsboro Water Department routinely monitor 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, **2011.**

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. Or 1 drop in 13 gallons.

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. Or 1 drop in 13,000 gallons.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria	N	1 positive sample in August		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and *E.coli*	N	1 positive E coli sample in August		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	Human and animal fecal waste
Chlorine	N	0-4	ppm	4	4	Water additive used to control microbes
Radioactive Contaminants						
5. Alpha emitters	N	0.29-1.2 *(2010)	pCi/1	0	15	Erosion of natural deposits
6. Combined radium	N	0.55 *(2009)	pCi/1	0	5	Erosion of natural deposits
Inorganic Contaminants						
11. Barium	N	.0965 *(2006)	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Chromium	N	1.5 *(2006)	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits

15. Copper	N	0.172 *(2009)	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
18. Lead **90th percentile**	N	14.4 *(2009)	ppb	0	AL=15 **1 site out of 22 exceeded the AL**	Corrosion of household plumbing systems, erosion of natural deposits
20. Nitrate (as Nitrogen)	N	0.42-7	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
67. Ethylbenzene	N	0-0.89	ppb	700	700	Discharge from petroleum refineries
68.Haloacetic Acids (HAA)	N	1.835 *(2010)	ppb	n/a	60	By-product of drinking water disinfection
75. Trichloroethylene	N	0.6-1.3 *(2009)	ppb	0	5	Discharge from metal degreasing sites and other factories
76. TTHM Total trihalomethanes]	N	1.9 *(2010)	ppb	n/a	80	By-product of drinking water chlorination
77. Toluene	N	0-0.0011	ppm	1	1	Discharge from petroleum factories
79. Xylenes	N	0-0.00305	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
Nickel	N	0.5-0.7	ppb	n/a	100	Naturally occurring
Unregulated Inorganic Contaminants						
80. Iron (Fe)	N	0.11-9.75 (average 3.68)	ppm	0	0.3	
81. Sodium (Na)	N	13.5-17.6 (average 16.28)	ppm	0		
82. Alkalinity (Alk)	N	35-59 (average 49)	ppm			
83. pH	N	5.9-8.5 (average 6.8)	ppm		6.5 – 8.5	
84. Chloride (Cl)	N	14.3-18.8 (average 16.4)	ppm		250	
85. Hardness	N	20.3-24 *(2009)	ppm			
86. Total Dissolved Solids (TDS)	N	76-126 (average 111)	ppm		500	
Manganese	N	0.0405-0.0537	ppm		0.05	
Sulfate	N	4.7-15 (average 9)	ppm			

*The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

All other contaminants were ND in compliance with the Safe Drinking Water Act.

(20) Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Lead-If present, elevated lead levels can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Millsboro Water Department 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 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 Safe Drinking Water Hotline or at *www.epa.gov/safewater/lead.*

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 level in your water is below the MCL.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. In order to insure tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations established limits for contaminants in bottled water, which must provide the same protection for public health.

Contaminants that may be present in source water include:

1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operation, and wildlife.

2) Inorganic contaminants, such as salts and metals can be naturally[occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.

3) Pesticides and herbicides, which may come from a variety of sources, such as agricultural, urban storm water runoff, and residential uses.

4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

5) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

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).

Please call our office if you have questions.

We at the Town of Millsboro work around the clock to provide top quality water to every tap, said Kenny Niblett. 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.

TOWN OF MILLSBORO
322 Wilson Highway
Millsboro, Delaware 19966-1216

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Tapping Into Good Health