



*Annual Drinking Water Quality Report for 2010  
Town of Clayton  
414 Main Street, P.O. Box 1130  
Clayton, Delaware 19938  
PWS ID# DE0000565  
May 12, 2011*

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. Our three wells draw from the Rancocas 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 **Town Hall @ 653-8419**. Or go on-line @ <http://www.wr.udel.edu/swaphome/swassessments.html>. It provides information such as potential sources of contamination.

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 **Jeff Hurlock @ 653-8419**. 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 second Monday of each month @ 7:30 p.m. at the Town Hall, 414 Main Street.**

Public Health, Office of Drinking Water and the Town of Clayton 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 1<sup>st</sup> to December 31<sup>st</sup>, **2010**. 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 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.

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.

*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
<b>Radioactive Contaminants</b>						
4. Beta/photon emitters	N	9 *(2008)	pCi/l	n/a	n/a	Decay of natural and man-made deposits
5. Alpha emitters	N	0.02- 0.29	pCi/l	0	15	Erosion of natural deposits
6. Combined radium	N	0.34- 0.88	pCi/l	0	5	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
9. Arsenic	N	0-6.3	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
11. Barium	N	0 - 0.0191	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Chromium	N	3.7-91	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
15. Copper	N	0.188 *(2009)	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
17. Fluoride	N	0.87- 1.15	ppm	0.8-1.2	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
20. Nitrate (as Nitrogen)	N	0.6 *(2007)	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
<b>Volatile Organic Contaminants</b>						
68. Haloacetic Acids (HAA)	N	2.286	ppb	n/a	60	By-product of drinking water disinfection
76. TTHM Total trihalomethanes]	N	1.9	ppb	n/a	80	By-product of drinking water chlorination
77. Toluene	N	0.0078 *(2008)	ppm	1	1	Discharge from petroleum factories
78. Xylenes	N	0-1.2 *(2006)	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories
<b>Unregulated Inorganic Contaminants</b>						
80. Iron (Fe)	N	0.56	ppm	0	0.3	
81. Sodium (Na)	N	12.7-31.3	ppm	0		
82. Alkalinity (Alk)	N	130-141	ppm			
83. pH	N	7.4	ppm		6.5 – 8.5	
84. Chloride (Cl)	N	1.01-6.2	ppm		250	
85. Hardness	N	54-71.9 *(2009)	ppm			
86. Total Dissolved Solids (TDS)	N	162-178	ppm		500	
Chloroform	N	1.05-1.32 *(2009)	ppb			
Manganese	N	2.5-123	ppb			
Nickel	N	0.9-1.7	ppb	n/a	100	Naturally occurring
Sulfate	N	2.5-3 *(2009)	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.**

(9) Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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.

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.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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 Clayton 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.

