

Town of Poolesville



Water Quality Report

2005-2006

**Presorted Standard
U.S. Postage
PAID
Poolesville, MD 20837
Permit No. 1663**

**Resident
Poolesville, Maryland 20837**



The Commissioners of Pooleville Annual Water Quality Report

2005-2006

Town Hall 301-428-8927 * Fax 301-972-7619

E-mail address – townhall@lan2wan.com

Home Page – www.ci.pooleville.md.us

PWSID#150002

This report describes Pooleville's drinking water sources and quality, and the program that protects the high water quality of our water supply.

The information in this report is also submitted formally and routinely to the Maryland Department of The Environment, which monitor our compliance with the many regulatory standards and testing protocols required to assure safe drinking water.

We test the drinking water quality for many constituents as required by State and Federal Regulations. *This report shows the results of our monitoring for the period of January 1 – December 31 2005.*

Pooleville staff work around the clock to ensure that each home is provided with the best quality water possible. We are pleased to report that our drinking water is safe and meets and/or exceeds Federal and State requirements. If you have any questions about your water, please contact Wade Yost, Town Manager at 301-428-8927.

Frequently Asked Questions

What is the pH of Pooleville's water?

The pH of Pooleville's water after treatment ranges from 7.0 to 8.0.

Is Pooleville's water hard or soft?

Pooleville's water is hard. It averages about 15 grains of hardness per gallon. Homeowners should be vigilant about flushing hot water heaters at least once per year.

Does Pooleville add fluoride to the water?

No. Due to the numerous points of entry into the system, it would be expensive and impractical. Parents of young children may want to consult with their dentist about the need for fluoride treatments to prevent tooth decay.

Why does my water sometimes look milky?

The hardness in the water comes from naturally occurring calcium carbonate. As the water is exposed to the atmosphere, the carbonate escapes as a gas much like the carbonation in a soft drink. Some residents have installed water softeners and are satisfied with the results.

How much water do we use?

In 2005, the annual average production was 418,192 gallons per day.

Poolesville's Water Sources and System Operations

Poolesville relies entirely upon ground water to supply residents and businesses. Water is withdrawn from nine wells located throughout Town. These wells are drilled from 285 to 800 feet deep into the New Oxford Formation Aquifer. Groundwater is derived from rainwater, creek and riverbed percolation. As the water travels downward through the soils, many of the impurities are removed. This results in water that is usually clean enough to drink without any treatment. The groundwater quality in Poolesville is very good and requires minimal treatment as mandated by the Safe Water Drinking Act. Currently, chlorine, which protects against bacteria, is the only type of treatment used.

Poolesville's system consists of about eighteen miles of ductile iron water pipe and two storage tanks. A 500,000-gallon elevated storage tank is located near the High School and a 1,000,000-gallon standpipe is located in the Woods of Tama.

Name of System: Poolesville Municipal Water System

Population Served: 5,167

Number of Services/Connections: 1,682

Average Daily Demand: 550,000 **Maximum Daily Demand:** 770,000

Well #	2	3	4	5	6	7	8	9	10
Depth (ft)	453	285	600	500	500	700	500	800	762
Diameter (in)	6	6	6.5	6	8	8	8	8	8
Capacity (gpm)	100	60	40	100	110	45	65	124	75
Treatment	CL2								

Additional General Information On Drinking Water

All Drinking water, including bottled water, may reasonably be expected to contain at least a small amount 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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. USEPA/Centers for Disease Control guidelines an appropriate means to lesson the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline.

Town of Poolesville Annual Water Quality Report

In order to ensure that tap water is safe to drink, USEPA and the Maryland Department of the Environment (MDE) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The tables below list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The MDE requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

The MDE requires certain health effects language for some contaminants even though a violation may not exist.

- **Nitrate:** Infants who drink water containing nitrates in excess of the MCL could become seriously ill and, if not treated, may die. Symptoms include shortness of breath and blue baby syndrome.
- **Radon:** Radon has been detected in all samples tested. There is no Federal regulation for drinking water. However, exposure to air transmitted radon over a long period of time may cause adverse health effects.
- **Alpha Emitters:** Results for Wells 7,9 and 10 show levels that are equal to or exceed the MCL. The MDE has not issued a violation due to discrepancies in the analytical procedure used by the State’s lab. The Town and MDE will perform quarterly testing in the upcoming year. Alpha Emitters have the potential to cause an increased risk of cancer if consumed in excess of the MCL over a lifetime.

Terms used in the following tables

AL= Action Level

MCL= Maximum Contaminant Level

MCLG= Maximum Contaminant Level Goal

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

N/D= Non Detectable

pCi/l= Pico curies per liter (a measure of radioactivity)

ppm= parts per million= milligrams per liter (mg/L)

ppb= parts per billion= micrograms per liter (ug/L)

ppt= parts per trillion

Distribution Test Results

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Major Sources in Drinking Water
Alpha Emitters (pCi/l)	No	2	pCi/l	0	15	Erosion of natural deposits
Lead (ppb)	No	0	ppm	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (ppm)	No	0.76	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits leaching from wood preservatives.
Trihalomethanes	No	10.32	ppb	0.06	80	Disinfection byproduct
Haloacetic acids	No	3.14	ppb	0.3	60	Disinfection byproduct
Coliform Bacteria	No	0	mg/L			Naturally present in the environment

Straight From The Well

Radioactive Contaminants

Contaminant	Violation Y/N	Level detected well #										Unit Measurement	MCLG	MCL	Major sources in drinking water
		2	3	4	5	6	7	8	9	10					
Beta/ photon emitters	No	2	10	0.5	3	3	6	11	4	4	pCi/l	0	50	Decay of natural and man-made deposits	
Alpha emitters (adjusted)	No	6	8.6	1	4	7	17	8.1	15	15	pCi/l	0	15	Erosion of natural deposits	
Combined radium	No	1.2	.3	1.3	2.3	2.5	.35	2.5	2.8	2.8	pCi/l	0	5	Erosion of natural deposits	
Uranium	No	5	2.4	10	5	9.5	16.5	7.9	18.4	18.4	pCi/l	0	30	Erosion of natural deposits	

Inorganic Contaminants

Contaminant	Violation Y/N	Level detected well #										Unit Measurement	MCLG	MCL	Major sources in drinking water
		2	3	4	5	6	7	8	9	10					
Barium	No	.2	.2	.04	.14	.9	.8	.55	.57	.57	ppm	2	2	Discharge from drilling wastes; Erosion of natural deposits	
Fluoride	No	.1	.2	.1	.2	.2	.2	.2	.13	.13	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth, discharge from fertilizer and aluminum factories.	
Nitrate	No	4.9	6	5.8	5.6	2.7	.5	2.8	1.7	1.7	ppm	10	10	Runoff from fertilizer use4; leaching from septic tanks, sewage, erosion of natural deposits	

Synthetic Organics

Contaminant	Violation Y/N	Level detected well #										Unit Measurement	MCLG	MCL	Major sources in drinking water
		2	3	4	5	6	7	8	9	10					
Di(2-ethylhexl phthalate	No	1.5		.9	.9				.5	.7	.7	ppb	0	6	Discharge from rubber and chemical factories
Chlordane	No		.12						<1	<1	ppb	0	2	Residue of banned termiticides	
Picloram	No			.05					<1	<1	ppb	500	500	Herbicide runoff	
Pentachlorophenol	No			.11				.12	.14	.001	.001	ppb	0	1	Discharge from wood preserving factories
Dibromochloro-propane	No			.03					.5			ppt	0	200	Runoff/leaching from soil fumigants used on soybean, cotton, pineapples and orchards
2,4,5,-TP (silvex)	No				1.05				.05			ppb	50	50	Residue of banned herbicides.

Unregulated Contaminants

Contaminant	Violation Y/N	Level detected well #										Unit Measurement	Major sources in drinking water
		2	3	4	5	6	7	8	9	10			
Calcium	No	94	82	67	67	59			79	47	46	ppm	Erosion of natural deposits
Iron	No	.14			.05							ppm	Erosion of natural deposits
Magnesium	No	9.4	9.2	7.8	8.9	12			14.3			ppm	Erosion of natural deposits
Sodium	No	14	18	11	17	15	23	20	22	22	ppm	Erosion of natural deposits	
Sulfate	No	19	27	27	18	10	11				ppm	Erosion of natural deposits	
Zinc	No	.07	.05								.09	ppm	Erosion of natural deposits
Radon-222	No	820	560	2500	405	815	2585	1800	1630	2709	pCi/l	Erosion of natural deposits	
Potassium	No		1.4	1.3	1				1			ppm	Erosion of natural deposits
Chloromethane	No		.5									ppb	Erosion of natural deposits
Dicamba	No							.13			.005	ppb	Erosion of natural deposits
3Hydroxycarbofuran	No	5			5							ppb	Erosion of natural deposits

Improvements To The System

Wellhead Protection Plan

The Draft Plan is under review and should be adopted this year. The plan protects our water from illicit runoff and potential contamination. A copy of the plan may be picked up at Town Hall.

Well #2

The filtration unit for well #2 will be online within the next month. The well has been offline for several years due to a coliform bacteria problem. After extensive pilot testing of a filtration unit with the MDE, the design was approved.

Wells 7, 9 & 10

Although a violation has not been issued by the MDE for Alpha Emitters, the Town is looking at solutions for treating the water if necessary. Money is budgeted in fiscal year 2007 for the project. Depending on the identified particle, the treatment could range from an ion exchange unit to reverse osmosis.

How small is one part per million?

Money = 1 cent in \$10,000

Time = 1 minute in 1.9 years

Length = 1 inch in 16 miles

Volume = 1 ounce of dye in 7,350 gallons of water

Kitchen = 1 ounce of salt in 62,500 pounds of sugar

Please contact us if you are interested in learning more about Poolesville's Water Department or our water quality. Questions about water quality can be answered by calling Wade Yost at 301-428-8927.

For Public Participation:

Poolesville Town
Commissioner meetings are held at Town Hall, 19710-C Fisher Avenue at 7:30 p.m., on the first and third Monday of each month.

Dedicated to Quality Water and Service