Pleasant Valley

MD0060009

*Community Water System * Carroll County, Maryland*

2016 Annual Water Quality Report

This is an annual report on the quality of water delivered by the Carroll County Bureau of Utilities, Department of Public Works. This report meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information of the Source of the Water, its constituents, and the health risks associated with any contaminants. Safe water is vital to the community. Please read this report carefully and, if you have questions, call the Bureau of Utilities at 410-386-2164.

Pleasant Valley 2016 Annual Water Quality

Bureau of Utilities
Department of Public Works
225 North Center Street, Room 218
Westminster, Maryland 21157

Water Source

The source of Pleasant Valley's community water supply is a groundwater well in production since 2001, located 750 feet northeast of Halter Road. A second well located behind the PV Fire Department was added in 2015. These wells pump up to 15 gallons per minute to the treatment building located on High Street. Sodium Hypochlorite is then added for disinfection and Sodium Hydroxide for pH balance and corrosion control as well as a nitrate removal system and a softening system. After chemical injection, it is pumped to the elevated 50,000 gallon water storage tank.

A source water assessment was performed and the susceptibility analysis for Pleasant Valley's water supply is based on the water quality data, potential sources of contamination, aquifer characteristics, and well integrity. The assessment determined that Pleasant Valley's water supply is susceptible to contamination by nitrates and Radon-222. The water supply is not susceptible to volatile organic compounds or synthetic organic compounds. Copies of the source water assessment are available at the Bureau of Utilities, Carroll County Government, 225 North Center Street, Room 218, Westminster MD 21157.

Important Health Information

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 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 (800-426-4791).

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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. Contaminants that may be present in source water include:

(A) **Microbial Contaminants**, *such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.*

(B) **Inorganic Contaminants,** *such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.*

(C) **Pesticides and Herbicides,** *which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.*

(D) **Organic Chemical Contaminants,** *including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban stormwater runoff and septic systems.*

(E) **Radioactive Contaminants,** *which can be naturally-occurring or be the result of oil and gas production and mining activities.*

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. The EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Radon Information

The Bureau of Utilities tested for Radon in 2008. The water showed an average Radon level of 25.7 picocuries per liter (pCi/L). Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the United States and can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State Radon Program or call EPA's Radon Hotline (800-SOS-RADON).

Copper and Lead Information

July through September 2016, the Pleasant Valley water system discovered some of the older homes with copper pipes may have elevated levels of lead present in their drinking water. The maximum contaminant level goal (MCLG) for lead is zero and the action level is 15 parts per billion (or .015 parts per million). The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. Prior years, calcium carbonate levels (hardness) assisted in maintaining low lead results in the older homes within the area by allowing a layer of calcium scaling in the pipe walls. During an upgrade, the Pleasant Valley water treatment facility installed water softeners to assist the newly installed nitrate removal tanks to work properly, but in turn it also removed the calcium scaling. Testing was conducted through five service locations spread thoughout the distribution system. Further testing will be conducted January through June 2017 and a second round July through December 2017. Any further concerns will be addressed immediately. For copper, test results showed levels to be well below EPA's maximum contaminant level of 1.3 ppm.

If present, elevated levels of lead 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 Bureau of Utilities 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

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Water Quality Table

Inorganic Contaminants	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Copper[1]	2016	AL=1.3ppm	0.23ppm	.1ppm	Corrosion of household Plumbing Systems; erosion of natural deposits;	Short term exposure: Gastrointestinal distress long term exposure: liver or kidney damage
Lead[2]	2016	AL=15ppb	0	796ppb	Corrosion of household plumbing systems, erosion of natural deposits	Infants & children: Delays in physical or mental development, children could show slight defects in attention span & learning disabilities. Adults: Kidney problems & high blood pressure
Nitrate[3]	02/17/16	10ppm	10ppm	7.8ppm	Run off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	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.

Disinfectants & Disinfection By-Products	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Chlorine	2016	4 ppm	4 ppm	1 ppm	Water additive used to control Microbes	
TTHM's[4]	8/18/16	80 ppb	na	11.5ppb	By-prodcut of drinking Water disinfection	Liver, kidney or central nervous system problems, Increased risk of cancer.
HAA5[4]	8/18/16	60 ppb	na	3.1ppb	By-product of drinking Water disinection	Increased risk of cancer.

Secondary Inorganic Contaminants	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
pH[5]	2016	na	na	8.5 pH	Erosion of natural deposits; algae blooms	No known health effects

Synthetic Organic Contaminants	Date Tested	SMCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Di (2-ethylhexyl) phthaltate	9/27/13	6 ppb	0	<1ppb	Discharge from rubber and chemical plants	Reproductive difficulties; liver problems; increased risk of cancer

Key to Table

AL = Action Level
MCL = Maximum Contaminant Level
SMCL = Secondary Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
TT = Treatment Technique
*Indicates SMCL
pCI/L = picocuries per liter (a measure or radioactivity)
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (*ug*/L)
NTU = Nephelometric Turbidity Units
na = Not Applicable
HLD = Highest Level Detected

An explanation of the Water Quality Data Table

The water is tested to assure that it is safe and healthy. The column marked "Detected Level" shows the highest test results during the year. "Major Sources" shows where this substance usually originates. Footnotes explain important details. The State allows the County to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the Pleasant Valley data, though representative, is more than one year old.

Important Drinking Water Definitions

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to MCLG's as feasible using the best available treatment technology, and taking cost into consideration.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's all for a margin of safety, and are non-enforceable public health goals.

Detected Level: The highest level detected of a contaminant for comparison against the acceptance levels for each parameter. These levels could be the highest single measurement, or an average of values depending on the contaminant.

Range: The lowest to the highest values for all samples tested for each contaminant. If only one sample is tested, or no range is required for this report, then no range is listed for that contaminant in the table.

Water Quality Table Footnotes

[1] The samples tested for copper did not exceed the current action level of 1.3 ppm.

[2] Refer to page 2, copper and lead information

[3] 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 for advice from your health care provider.

[4] Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:

- Haloacetic acids: dichloroacetic acid (zero); trichloraoacetic acid (0.3 mg/L)
- Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (9.06) mg/L)

[5] pH is shown as a highest level detected for the year.

For additional information, contact the Bureau of Utilities, Department of Public Works, at 410-386-2164; or consult our web site at http://ccgovernment.carr.org/ccg/util. For further information, see U.S. Environmental Protection Agency (EPA) water information at https://www.epa.gov/ccr; or by calling EPA's Safe Drinking Water Hotline at 1-800-426-4791.

For billing information, call 410-386-2000, and for Operation and Maintenance inquiries, call 410-386-2164, Monday through Friday from 8:00 a.m. to 5:00 p.m. An answering machine is available after hours.

The Board of Carroll County Commissioners meets regularly with Department staff. The Carroll County Commissioners' weekly agenda is available on the Internet at http://ccgovernment.carr.org/ccg/commiss/agenda.pdf. or by calling the Commissioners' Office at 410-386-2043. The Carroll County Commissioners welcome and encourage public participation.

Member: American Water Works Association (AWWA)
Chesapeake Section of the American Water Works Association (CSAWWA)
Maryland Rural Water Association (MRA)
Water Environment Federation (WEF)
Chesapeake Water Environment Association (CWEA)
Water and Waste Operators Association (WWOA)