

2023 Annual Drinking Water Quality Report
Wood-Broad Top-Wells Joint Municipal Authority
PWSID # 4310032

WATER SYSTEM INFORMATION:

This report contains important information about your drinking water. Have someone translate it for you, or talk to someone who understands it. (Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda.) If you have any questions about this report or concerning your water utility, please contact Chad Myers at (814)635-2354. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the last Tuesday of each month at 7:00 PM at the Robertsdale Fire Hall.

SOURCE(S) OF WATER:

Our water source is surface water from the Trough Creek Reservoir and Butcher Run Reservoir. The water is treated at our 203 Bedford Street water plant in Wood, PA. A *Source Water Assessment* of our reservoirs, which supplies water to the 203 Bedford Street water Plant, was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our reservoirs are potentially most susceptible to Surface Coal Mining, Deep Coal Mining, and Public Use. Overall, our reservoirs have a high risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: <https://greenport.pa.gov/elibrary/GetFolder?FolderID=4518>. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP SouthCentral Regional Office, Records Management Unit at (717)-705-4732.

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).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 2023. 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 is from prior years in accordance with the *Safe Drinking Water Act*. The date has been noted on the sampling results table.

DEFINITIONS:

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

Maximum Contaminant Level (MCL) - 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 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 that is 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.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

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

Level 2 Assessment – A Level 2 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 our water system on multiple occasions.

ppb = parts per billion, or micrograms per liter (µg/L)

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

pCi/L = Pico curies per liter – Pico curies per liter is a measure of the radioactivity in water.

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

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	MRDL= 4	MRDLG= 4	3.0	0.4 - 3.0	ppm	2023	N	Water additive used to control microbes.
2,4-D	0.07	0	0.18	<0.10 – 0.18	ppm	2023	N	Herbicide mixtures.
Nitrate	10	10	<1.00	<1.00	ppm	2024	N	Runoff from fertilizer use.
HAA5	60	NA	12.7	6.9 – 12.7	ppb	2023	N	By-product of drinking water disinfection.
TTHM	80	NA	62.0	23.4 – 62.0	ppb	2023	N	By-product of drinking water chlorination.
Gross Alpha	15	0	0.067±0.726	-	pCi/l	2024	N	Erosion of natural deposits.

*EPA’s MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.4	0.4	0.4- 3.0	ppm	2023	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead (2022)	15	0	All <1.35	ppb	0 out of 10	N	Corrosion of household plumbing.
Copper (2022)	1.3	1.3	All <0.258	ppm	0 out of 10	N	Corrosion of household plumbing.

Microbial (related to Assessments/Corrective Actions regarding TC positive results)						
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination	
Total Coliform Bacteria	"Absence" from all samples in 2023.	N/A	N/A	N	Naturally present in the environment.	

Turbidity						
Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.6 NTU	2023	N	Soil runoff
	TT= at least 95% of monthly samples ≤0.3 NTU		97 %	2023	N	

Total Organic Carbon (TOC)					
Contaminant	Range of % Removal Required	Range of % Removal Achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	35%	36 - 54%	0	N	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

According to the EPA, exposure to total trihalomethanes (TTHMs) in drinking water over a lifetime may slightly increase the risk of bladder or colorectal cancer if levels exceed 80 parts per billion (ppb). This risk is small compared to the potential for deadly infectious diseases in water that is not disinfected. The EPA also estimates that people who drink 2 liters of water containing 0.1 parts per million (ppm) of chloroform daily for 70 years may develop 3–4 additional cancers.

According to the EPA, some people who drink water with high levels of haloacetic acids (HAA5) over many years may have an increased risk of cancer. Animal studies have shown that HAA5 can increase the incidence of liver cancer, and some human studies have linked exposure to HAA5 to an increased risk of bladder cancer. However, human studies have not yet confirmed that exposure to HAA5 increases the risk of cancer. Based on animal data, the EPA estimates that exposure to HAA5 at current regulatory levels could increase the risk of cancer by about 1 in 60,000 for every 10 years.

VIOLATIONS:

- Nitrate/Nitrite – Failed to submit public notice. Compliance Achieved.
- VOCs – Failed to submit public notice. Compliance Achieved.
- Chlorine – Weekly distribution samples were reported late. Compliance Achieved.
- HAA5 – Samples were past due per a quality control issue at the lab. Compliance Achieved.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken

EDUCATIONAL INFORMATION:

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 human activity. Contaminants that may be present in source water include:

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

- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

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* (800-426-4791).

Information about Lead

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. Wood-Broad Top-Wells Joint Municipal Authority 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.

Information about Cryptosporidium

Cryptosporidium is a single-celled microbe contained in a group generally known as protozoa. Cryptosporidium may cause a disease, cryptosporidiosis, when ingested. Cryptosporidiosis symptoms can range from mild stomach upset to life threatening disease in those who are immunocompromised (e.g., people with severely compromised immune systems). Oocysts are a stage in the life-cycle of some Cryptosporidium. In this stage, the Cryptosporidium can infect humans and other animals.

Help Conserve Water

Inside the Home

Get Flush With Savings

- Consider installing a WaterSense labeled toilet, which uses 20 percent less water while offering equal or superior performance. Compared to older, inefficient models, WaterSense labeled toilets could save a family of four more than \$90 annually on its water utility bill, and \$2,000 over the lifetime of the toilets.

- Check for toilet leaks by adding food coloring to the tank. If the toilet is leaking, color will appear in the bowl within 15 minutes. (Make sure to flush as soon as the test is done, since food coloring can stain the tank.)

Accessorize Your Faucet

- Installing a WaterSense labeled aerator is one of the most cost-effective ways to save water. Also consider replacing the entire faucet with a WaterSense labeled model. Either way, you can increase the faucet's efficiency by 30 percent without sacrificing performance.
- Repair dripping faucets and showerheads. A drip rate of one drip per second can waste more than 3,000 gallons per year.

Clean Up With Savings

- A full bathtub can require up to 70 gallons of water, while taking a 5-minute shower uses only 10 to 25 gallons.
- Turning off the tap while you brush your teeth can save 8 gallons per day.

Lighten Your Loads

- Wash only full loads of dishes and clothes or lower the water settings for smaller loads.
- Replace your old washing machine with a high-efficiency, ENERGY STAR® labeled model, which uses up to 50 percent less water and electricity.

Outside the Home

Water When Needed

- Water your lawn or garden during the cool morning hours, as opposed to midday, to reduce evaporation.
- Look for sprinklers that produce droplets, not mist, or use soaker hoses or trickle irrigation for trees and shrubs.
- Set sprinklers to water lawns and gardens only. Check that you're not watering the street or sidewalk.
- Try not to overwater your landscaping. Learn plants' water needs and water different types appropriately.

Grow Green Grass

- Don't overfertilize. You will increase the lawn's need for water.
- Raise your lawn mower blade to at least 3 inches. Taller grass promotes deeper roots, shades the root system, and holds soil moisture better than a closely cropped lawn.

Garden With Care

- Plant climate-appropriate species. Try plants that are native to where you live, which don't require as much water, and group plants together by water requirements.
- Use mulch around trees and plants to help reduce evaporation and control water-stealing weeds.

OTHER INFORMATION:

About Nitrate: 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.

Although you the consumer only see a few of the test results listed above, some of the other testing that is performed include but is not limited to Inorganic Chemicals (IOCs) such as Arsenic, Mercury, Fluoride, etc; Synthetic Organic Chemicals (SOCs) such as Aldrin, Heptachlor, Toxaphene, etc; Volatile Organic Compounds (VOCs) such as Benzene, Ethylbenzene, Styrene, etc; and many others. We at the Wood-Broad Top-Wells Joint Municipal Authority continually monitor the quality of the water source/supply to the finished product to ensure quality water is being delivered to your home. Although we constantly monitor your water from here at the water treatment plant we also use independent certified labs to conduct testing of the water that is being delivered to your home. We ask all of our customers to help protect our water resources and the environment for future generations.