

# 2020 ANNUAL DRINKING WATER QUALITY REPORT

## Municipal Authority of the Borough of Carmichaels PWSID # 5300005

*Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.* (This report contains very important information about your drinking water. Translate it or speak with someone who understands it.)

**WATER SYSTEM INFORMATION:** This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact the water authority office at 724-966-2250. 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 2<sup>nd</sup> Monday of every month at 4:00 PM at the authority office at 104 N Pine St, Carmichaels, PA 15320.

**SOURCE OF WATER:** Our water source is a surface water source obtaining it from the Monongahela River at mile #75.

A Source Water Assessment of our source was completed in 2002 by the PA Department of Environmental Protection (PADEP). The Assessment has found that our source, the Monongahela River is most susceptible to road deicing materials, accidental road way spills, utility substations, accidental spills from marinas/boats, storm water runoff and on lot sewage disposal system. Overall, our source has moderate risk of significant contamination. Summary reports of the Assessment are available on the PADEP Web site at [www.depweb.state.pa.us](http://www.depweb.state.pa.us) (Keyword: "source water"). Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices.

**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 microbial 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 tables show the results of our monitoring for the period of January 1 to December 31, 2020. 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 AND ABBREVIATIONS:

**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 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** - 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.

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

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

**pCi/L** = picocuries per liter (a measure of radioactivity)

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

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

**ppq** = parts per quadrillion, or picograms per liter

### DETECTED SAMPLE RESULTS:

| Chemical Contaminant    | MCL      | MCLG     | Highest Level Detected    | Range of Detections                      | Units     | Sample Date | Violation Y/N | Sources of Contamination   |
|-------------------------|----------|----------|---------------------------|--|-----------|-------------|---------------|--|
| Total Organic Carbon    | TT       | N/A      | % Removal Required<br>35% | % Removal Achieved<br>(1)42.4 % to 55.5% | % Removed | 2020        | N             | Naturally Present in the environment   |
| Chlorine (Distribution) | MRDL = 4 | MRDLG =4 | 1.42 (February)           | 0.56 – 1.42                              | ppm       | 2020        | N             | Water additive used to control microbes  |
| Barium                  | 2        | 2        | 0.025                     | N/A                                      | ppm       | 5/4/20      | N             | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Total Trihalomethanes   | 80       | N/A      | 53.0125 (2) (3rd Quarter) | 13.10 to 102.00                          | ppb       | 2020        | N             | Byproduct of drinking water chlorination   |
| Haloacetic Acids        | 60       | N/A      | 31.825(2) (1st Quarter)   | 20.30 to 38.60                           | ppb       | 2020        | N             | Byproduct of drinking water disinfection   |

(1) In months that the percent achieved was below required, there was no exceedance of the MCL because we met alternative compliance criteria as required by the PA Safe Drinking Water Act.

(2) Indicates that these are the highest locational running annual average (RAA) calculated during 2020.

| Entry Point Disinfectant Residual |                               |                       |                     |       |                    |               |  |
|-----------------------------------|-------------------------------|-----------------------|---------------------|-------|--------------------|---------------|--|
| Contaminant                       | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Units | Lowest Sample Date | Violation Y/N | Sources of Contamination                 |
| Chlorine 2020                     | 0.2                           | 0.4716                | 0.4716-2.39         | ppm   | 9/26/20            | N             | Water additive used to control microbes. |

| Contaminant   | Action Level (AL) | MCLG | 90 <sup>th</sup> Percentile Value | Units | # of Sites Above AL of Total Sites | Violation of TT Y/N | Sources of Contamination   |
|---------------|-------------------|------|-----------------------------------|-------|------------------------------------|---------------------|--|
| Lead (2019)   | 15                | 0    | 0                                 | ppb   | 0 out of 20                        | N                   | Corrosion of household plumbing systems; Erosion of natural deposits                                   |
| Copper (2019) | 1.3               | 1.3  | 0.02                              | ppm   | 0 out of 20                        | N                   | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |

"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 Municipal Authority of the Borough of Carmichaels 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 <http://www.epa.gov/safewater/lead>."

| Contaminant | MCL  | MCLG | Highest Level Detected | Sample Date | Violation of TT Y/N | Source of Contamination |
|-------------|--|------|------------------------|-------------|---------------------|-------------------------|
| Turbidity   | TT=1 NTU for a single measurement            | 0    | 0.026                  | 2/20/20     | N                   | Soil Runoff             |
|             | TT= at least 95% of monthly samples ≤0.3 NTU |      | 100%                   | 2020        | N                   |                         |

**Violations:** In 2020 we had a number of Monitoring/Reporting Violations. All the required samples were taken and were in compliance.

In the month of March we monitored for Distribution Chlorine but the results were reported to the PA Department of Environmental Protection past the required due date.

In the months of March, April, May, June, and November we monitored for Entry Point Chlorine but the results were reported to the PA Department of Environmental Protection past the required due date.

In the month of March we monitored for Turbidity but the results were reported to the PA Department of Environmental Protection past the required due date.

We are required to monitor for Total Alkalinity at the same time as Total Organic Carbon. In the month of May we monitored for TOC on 5/4/20 but failed to monitor for Total Alkalinity at that time. The sample was taken on 5/18/20.

### **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 from 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 runoff, 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 runoff, 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 ensure 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 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).