

The Caernarvon Township Authority
2018 Annual Drinking Water Quality Report
Public Water Supply ID No. 3060052
March 2019

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.
(This report contains important information about your drinking water. Have someone translate it to you, or speak with someone who understands it.)

Water System Information:

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality drinking water and services we deliver to you every day. Our constant goal is to provide you with a 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. We are pleased to report that our drinking water meets all Federal and State requirements.

If you have any questions about this report or concerning your water utility, please contact Robert L. Weaver, Authority Chairman or Carol Bowman, Assistant Treasurer at (610) 286-1017. 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 first Wednesday of each month at 7:00 P.M. in the Authority's office building located at 601 Hemlock Road, in the Morgantown Business Park, Morgantown, PA.

Sources of Water:

Our water is drawn from three (3) wells located at three (3) sites throughout the community. The wells are located at the following sites: Mill Road (Mill Road No. 6), Morgantown Business Park (Well No. 8) and Hemlock Road (Well No. 7). All the wells are considered ground water sources.

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).

In our continuing efforts to maintain a 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. Periodic rate adjustments may be necessary in order to address these improvements.

Monitoring Your Water:

The Caernarvon Township Authority routinely monitors 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 1st to December 31st, 2018. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. If data is from prior years, in accordance with the Safe Drinking Water Act, the date has been noted on the sampling results table.

DEFINITIONS:

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

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

ppt = parts per trillion, or nanograms per liter

ppq = parts per quadrillion, or pictograms per liter

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 (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.

Treatment Technique– A required process intended to reduce the level of a contaminant in drinking water.

pCi/L - Picocuries per liter (a measure of radioactivity)

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

Other Violations:

The Authority had 4 Violations for monitoring/reporting in 2018. Although there were 4 violations, three (3) of the violations were for missing 1 sample for Selenium (IOC) that was to be taken at the Authority's three well sites that were not taken within the time required. These violations were for the period beginning 01/01/2018. The Authority had a 4th violation for GWR Fail to monitor/report. This violation was for a failure to report for the period beginning on 09/01/2018. The CTA was required to take and report 21 free chlorine samples at entry point 101. Although the required 21 samples were taken, only 18 were reported. The violations did not result in any known health risks. The necessary Selenium samples have been taken and the required free chlorine reporting has been completed. These violations require a Tier 3 Public Notice for Failure to Monitor/Report. The required notification is included in this CCR.

Educational Information:

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface 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:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
3. Herbicides and pesticides which may come from a variety of sources such as agriculture, storm water run-off or residential uses.
4. Organic chemical contaminants, including synthetic and volatile organic chemical, which are by-products of industrial processes and petroleum production and can also come from gas stations, storm water run-off or septic systems.
5. Radioactive contaminants which can be naturally occurring or can be the result of oil and gas production or mining activities.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. 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. In order to ensure that tap water is safe to drink, EPA & DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA & DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's *Safe Drinking Water Hotline* at 1-800-426-4791.

Detected Sample Results

Chemical Contaminants

Contaminant (Units)	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Sample Date	Violation (Y/N)	Sources of Contamination
Chlorine (ppm)	MRDL=4	4	1.13	0.65-1.13	2016	N	Water Additive used to control microbes.
Mercury (ppb)	2	2	0.9	0.4-0.9	02/02/2018	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nickel (ppb)	100	NA	6	NA	08/14/2015	N	Byproduct of mining and refining operations
Nitrate (ppm)	10	10	7.07	2.4-7.07	2017 and 2018	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Thallium (ppb)	2	0.5	2	2	08/14/2015	N	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Haloacetic Acids (HAA5) (ppb)	60	NA	2.98	NA	08/16/2016	N	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs) (ppb)	80	NA	22.5	NA	08/16/2018	N	Byproduct of drinking water disinfection
Gross Alpha (pCi/L)	15	NA	11.8	NA	02/09/2016	N	Erosion of natural deposits
Combined Uranium (pCi/L)	20	0	0.0091	0-0.0091	2018	N	Erosion of natural deposits
Radium-226 (pCi/L)	5	0	0.73	0.49-0.73	2018	N	Erosion of natural deposits

Entry Point Disinfectant Residual

Contaminant (Units)	MCL in CCR Units	MinRDL	Level Detected	Range of Detections	Sample Date	Violation (Y/N)	Sources of Contamination
Chlorine (ppm)	MRDL=4	0.4	Lowest=0.03	0.03-1.97	2018	N	Water additive used to control microbes

Lead & Copper

Contaminant (Units)	MCL in CCR Units	MCLG	Level Detected	Range of Detections	# Sites Above AL	Violation (Y/N)	Sources of Contamination
¹ Copper (ppm)(2016)	AL=1300	1300	90th Percentile Value=302	NA	0 of 20	N	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
¹ Lead (ppb)(2016)	AL=15	0	0	NA	0 of 20	N	Corrosion of household plumbing

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.

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 Caernarvon Township 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 <http://www.epa.gov/safewater/lead>.

¹The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER FAILURE TO MONITOR

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE
ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.**

Monitoring Requirements Not Met for Selenium (IOC) and Ground Water Rule Monitoring/Reporting

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During January and September of 2018 we failed to monitor and report for various contaminants and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Selenium (IOC) and Ground Water Rule monitoring and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Selenium (IOC)	Every 3 years	1 per well site	01/01/18	2/02/2018
GWR Monitoring	Quarterly	21 at entry pt 101	09/01/18	09/01/18

What happened? What was done?

The CTA did not take the required samples for Selenium in the first quarter of 2018. Once the violation was noted, the required samples were taken. The GWR monitoring violation was due to a reporting issue. The CTA was required to take 21 free chlorine samples at entry point 101 in September of 2018. 21 samples were taken, but only 18 samples were reported. Once it was determined that the required samples were not reported, the information was reported based on the samples that were taken in the time frame required.

For more information, please contact Robert L. Weaver, Authority Chairman or Carol Bowman, Assistant Treasurer at 610-286-1017.

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This notice is being sent to you by the Caernarvon Township Authority.

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