CEDARVILLE UNIVERSITY

2020

Water Quality Report

In 2020, Cedarville University had an unconditioned License *from the OEPA to operate our water system* (PWS#2903612).

The Cedarville University Water System has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is a system update, general health information, water quality test results, a summary statement of the results of our recent susceptibility analysis, and water system contacts.

Public participation and comments are encouraged. To participate, or for more information on your drinking water, residents may set up a meeting with a water plant representative at the Operations Center at Cedarville University by calling 937-766-7772.

WATER SYSTEM UPDATE:

Cedarville University has updated the contingency plan with Emergency Response Revision. There are copies available at the Water Plant, the Operations Center and a copy has been provided to the Greene County Emergency management office.

Cedarville University has completed the OEPA required Lead mapping plan. Plan has been submitted and approved by the OEPA (2017).

Cedarville University drilled a new well (Well #15). Final testing and certification of the well are underway.

SOURCE OF DRINKING WATER:

The Cedarville University Water System receives its drinking water from deep wells located to the east and north of the intramural fields east of 72. There are seven water supply wells which draw water from both the upper and lower bedrock aquifers. The well fields are located within the Till Plains section of the Central Lowlands physiographic province. They are supplied by two bedrock aquifers of the sub-Lockport Group.

Cedarville University also has two **back-up** interconnections with Cedarville Village/Greene County Engineers. The interconnection is used only for emergencies with the University system, or ones that would occur in Cedarville Village. This report does not contain information on the water quality received from Greene County Engineers, but a copy of their water quality report is on file at the Operations Center (766-7772) on campus, or one can be obtained by contacting Greene County Engineers, at (937) 562-*7450.* Residents are encouraged to participate. If you have issues or concerns, residents may set up a meeting with a water plant representative at the Operations Center at Cedarville University by calling 937-766-7772.

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 storm water 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 storm water runoff, and residential uses; (D) 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 storm water runoff, and septic systems; (E) radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

SUSCEPTIBILITY ANALYSIS:

The aquifer that supplies drinking water to Cedarville University's East Well field has a moderate susceptibility to contamination, due to the moderate sensitivity of the aquifer in which the drinking water wells are located and the presence of potential contaminant sources. This does not mean that this well field will become contaminated; only that conditions are such that the ground water could be impacted by potential contaminant sources. Future contamination may be avoided by implementing protective measures. In February, 2001, the University instituted an OEPA approved Wellhead Protection Policy (WHPP) which not only delineated the wellhead protection area, but also performed a potential pollution source inventory. The third aspect of the WHPP is that of a management phase which includes an ongoing contingency plan in the event of an emergency, as well as source control strategies. For a copy of the full report please contact the Operations Center at 937-766-7772.

TESTING FOR CONTAMINANTS:

In order to ensure that tap water is safe to drink, OEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA 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
(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 H117/AIDS or other immune system disorders, some elderly, and infants can be particularly

at risk from infection. 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 (1-800-426-4791).

The OEPA requires regular sampling to ensure drinking water safety. Chlorine levels are tested daily, 365 days a year in 2 locations on campus. ***Iron, manganese, and total coliform (bacteria)*** samples are drawn every week, and are sent to an OEPA approved lab for processing. **The Cedarville University water system conducted sampling for: nitrates, arsenic, disinfection by-products inorganics, and VOC's in 2019.** We also took part in testing for **Unregulated Contaminants** which are helping the OEPA to determine whether it needs to regulate these contaminants. We will show the results for this testing in a separate category. Many of these mandated chemical tests are on a rotating daily/weekly/quarterly/annual/tri-annual basis. Most of the contaminants we tested for were not detected in the campus water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Listed below is information on those contaminants that were found in Cedarville University drinking water:

Contaminants (Units)	MCL	MCLG	Level	Range of	Violation	Sample	Typical Source of Contaminants
			Found	Detections		Year	
Lead Zero out of 20 samples was found to have lead levels in excess of the Action Level of 15 ug/l	AL=15 ug/l	0	90th Percentile BDL	BDL ug/l- 11.4 ug/l	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits
Copper Zero out of 20 samples was found to have copper levels in excess of the Action Level of 1.3 mg/l.	AL 1.3 mg/l	1.3 mg/l	90th Percentile 0.258 mg/l	BDL- 0.453 mg/l	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	2 mg/L	2 mg/L	0.0432 mg/l	N/A	No	2017	Discharge of drilling waste, natural deposits
Fluoride	4 mg/l	4 ppm	0.39 mg/l	N/A	No	2017	**Fluoride**, a naturally-occurring mineral
Contaminants(Units)	**MCL**	**MCLG**	**Level**	**Range of**	**Violation**	**Sample**	**Typical Source of Contaminants**
Total Trihalomethanes	80 ug/l	NA	26.2 Ug/l	15.4 – 36.2ug/L	No	2019	Disinfection by-products
Total Chlorine	MRDL=4	MRDLG=4	1.2 mg/l	0.5 – 2.1 mg/L	No	2020	Water additive used to control microbes
By-product of drinking water chlorination	**Plant Tap ppb**	**Date**			**Distribution ppb**	**Date**	

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 building plumbing. The Cedarville University water system is responsible for providing high quality drinking water but does not 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 at the Safe Drinking Water Hotline, or at 800-426-4791, or at http://www.epa.gov/safewater/lead.

For more information on your drinking water please contact the Operations Center (937) 766-7772

Definitions of some terms contained within this report:

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.

Milligrams per liter (mg/L) or Parts per Million (ppm) are units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days

Maximum Contaminant level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

Parts per Billion (ppb) or Micrograms per Liter (u/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

MGD=million gallons per day-all records for water plant usage is figured on the basis/fraction of million gallons per day

Gpm=gallons per minute-total daily water usage is divided by 1440 (minutes per day) to arrive at a minute average for daily production

Parts per Billion (ppb) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years

The "<"symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level (MRDL): The highest residual disinfectant level allowed.

NA: Not applicable, only one sample was collected so there is no range of results to report.

BDL: Below Detection level