CEDARVILLE UNIVERSITY
"2012" Water Quality Report

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.

"Cedarville University has a current, unconditional license to operate our water system"

WATER SYSTEM UPDATE:

1. We are currently on the 1st of a 2 year sabbatical from copper/lead testing since our 2011 testing came back with our 90th percentile levels below the OEPA action levels.

2. Our 2011 annual production was 42.72 million gallons and our average daily production was 0.117 MGD (81 gpm) with 3.29 MG's being discharged to the surface in the form of backwash water or irrigation on our campus and playing fields. This does not take into consideration any water used for irrigation on the varsity or intramural playing fields. The wells for these fields are completely separate from the campus water system. Our present plant capacity is 0.345 MGD (240 gpm), and our approx well capacity is .360 MGD (250 gpm).

3. Even though this report seems to remain quite constant from year to year, it is not an indication that our system is self-sustaining. There is the daily checking of chlorine levels, reading meters and logging the water production for each 24 hours of operation. And since we are a 24 hour occupied campus to one extent or another, the system is checked every day of the year even on major holidays with one of the two operators on call and on campus to place eyes and hands on the system. When necessary to keep the system operating at design capacity, wells are opened and pumps pulled and replaced. The wells are cleaned on an annual basis for mineral build up that slows down pumping capacity and which will also destroy pumps early if not cared for regularly.

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. During 2012 we did need to use this feature. 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 in Paul Mitchell's office (#3204) in the Service Center on campus, or one can be obtained by contacting Greene County Engineers, at (937)562-*7450.*

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.

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 and SOC's in 2012.** 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. We need to show the results of the last 5 years of contaminant testing, or the most recent test whichever is the newest (wherever there were detections above minimums).

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

Contaminants(Units)	MCLG	MCL/AL	Level	Range of	Violation	Sample	Typical Source of Contaminants
			Found	Detections		Year	
Nitrates	10 mg/l		.260 mg/l		0	2010	Fertilizer, septic tanks, and erosion of natural deposits
Nitrates	10 mg/l		0.318 mg/l		0	2012	Fertilizer, septic tanks, and erosion of natural deposits

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.

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 more information on your drinking water contact Paul G Mitchell, Operator (937) 766-3204
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.

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 Million (ppm) or Milli-ams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

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

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