

Central State University Public Water System Consumer Confidence Report – 2016

Section 1: Introduction

The Central State University (CSU) Public Water System (PWS) has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, the latest water quality test results, information on how to participate in decisions concerning your drinking water, and water system contacts. In 2016 we had an unconditioned license to operate our water system.

Section 2: Source Water Information

In 2016 the CSU Water Treatment Plant was not operated. All potable water for the university was purchased from the City of Xenia through an auxiliary connection. During 2016 approximately 30,150,234 gallons were provided by this connection. This report contains information on the quality of water received from the City of Xenia and delivered through the CSU water distribution system. The Ohio Environmental Protection Agency (OEPA) has performed a source water assessment on the well fields providing water to the campus in 2003. This assessment indicates that the source of drinking water has a moderate susceptibility to contamination due to the sensitive nature 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 become impacted by potential contaminant sources. Please contact Joe Bates at 937-376-7269 if you would like more information about the assessment.

Section 3: What are sources of contamination to drinking water?

The sources of drinking water, for 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 animal 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; and (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, the USEPA 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).

Section 4: Who needs to take special precautions?

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 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).

Section 5: About your drinking water.

The EPA requires regular sampling at both the water plant and in the water distribution system to ensure drinking water safety. Sample collection was conducted in the CSU distribution system for total coliform, total chlorine, total haloacetic acids, and total trihalomethanes during 2016. Samples were collected for 4 different categories of contaminants, most of which, were not detected in the water system. 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. Some of our data, though accurate, is more than one year old. Listed in the table is information on those contaminants that were found. The City of Xenia public water system sampled the finish water leaving the plant for nitrate during 2016. Entry point water quality data from the last 5 years for the City of Xenia is being provided in this report as it is the primary source of water for CSU.

Section 6: Lead Educational Information

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. Central State University and the City of Xenia 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Section 7: Revised Total Coliform Rule (RTCR) Information

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the PWS.

Section 8: Public Participation Information

How do I participate in decisions concerning my drinking water? Public participation and comment are encouraged at regular meetings of the Facilities Director and staff. Meetings are held Thursdays at 8:30 a.m. in the facilities maintenance building. For more information on your drinking water contact the facilities management office at 937-376-6628.

Section 9: Table of Detected Contaminants

Listed below is information on those contaminants that were found in the CSU distribution system and City of Xenia finished drinking water.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Barium, Total (ppm)	2.0	2.0	0.137	NA	None	2014*	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4.0	4.0	0.218	NA	None	2014*	Erosion from natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate measured as Nitrogen (ppm)	10.0	10.0	2.05	NA	None	2016*	Runoff from fertilizer use; leaching from septic tanks/sewage; erosion of natural deposits.
Disinfection By-products							
Haloacetic acids, Total (ppb)	n/a	60	13.76	10.24-13.76	None	2016	By-product of drinking water disinfection.
Trihalometnanes, Total (ppb)	n/a	80	53.0	32.24-53.0	None	2016	By-product of drinking water disinfection.
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG=4	MRDL=4	1.5	0.93-1.8	None	2016	Water additive used to control microbes.
Lead and Copper							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15 ppb	0	11.9	None	2015	Corrosion of household plumbing systems.	
	1 out of 10 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	0	1.24	None	2015	Corrosion of household plumbing systems.	
	1 out of 10 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Bacteriological							
	MCLG	MCL	# of positive total coliform samples	# of positive fecal/e-coli samples	Violation	Sample Interval	
Total Coliform	0	1 positive /month	0	0	None	2/month	Naturally present in the environment.

*as sampled at the City of Xenia water plant entry point

Section 10: 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.
- 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 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.
- 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 Milligrams 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 ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.