

Central State University Public Water System Drinking Water Consumer Confidence Report - 2011

Section 1: Introduction

The Central State University 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, 2010 water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Section 2: Source Water Information.

The Central State University PWS water source is ground water (wells) from two separate unnamed sand and gravel aquifers. The north well field consists of three wells and is located NNW of Central State University's water treatment facility. The south well field consists of one well and is located SW of the C.S.U. booster pump station located on Brush Row Road in Wilberforce. Central State University also has an auxiliary connection with the City of Xenia. During 2010 approximately 46,500,000 gallons were provided from this connection over 365 days. This report does not contain information on the water quality received from the City of Xenia. A copy of their consumer confidence report can be obtained by contacting Eric Jones at 376-6622 or Robert Oatneal at 376-6452.

The Ohio Environmental Protection Agency has performed a source water assessment on the well fields. "This assessment indicates that the Central State University's source of drinking water from both well field locations 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."

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

The sources of drinking water both tap water and bottled water includes 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, 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 to ensure drinking water safety. The Central State University PWS conducted sampling for bacteria, and nitrogen (nitrite-nitrate) during 2010. Samples were collected for a total of 2 different contaminants most of which were not detected in the Central State University 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. Some of our data, though accurate, are more than one year old.

Section 6:

Listed below is information on those contaminants that were found in the 2008 in the Central State University PWS drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection s	Violation	Sample Year	Typical Source of Contaminants
Radioactive Contaminants							
Radium-228 (PCi/l)	5	0	1.02	n/a	N	2008	Erosion of natural deposits
Inorganic Contaminants							

Nitrate (ppm)	10	10	.770	n/a	N	2008	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate-Nitrite (ppm)	1	1	.207	n/a	N	2010	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Arsenic, Total (ppb)	10	0	+6.3	n/a	N	2008	Erosion of natural deposits: runoff from orchards: runoff from glass and electronics production wastes
Barium, Total (ppm)	2	2	+.461	n/a	N	2008	Discharge of drilling wastes: discharge from metal refineries: erosion of natural deposits
Cadmium, Total (ppb)	5	5	+.23	n/a	N	2008	Corrosion of galvanized pipes: erosion of natural deposits: discharge from metal refineries: runoff from waste batteries & paints
Copper (ppm)	1.3	AL=1.3	1.01	n/a	N	2009	Corrosion of household plumbing systems.
	Zero out of 20 samples was found to have copper levels in excess of the action level of 1.3 ppm						
Fluoride	4	4	0.46	n/a	N	2008	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (ppb)	0	AL=15	16.0	n/a	N	2009	Corrosion of household plumbing systems.
	One out of 20 samples was found to have lead levels in excess of the action level of 15 ppb						
Synthetic Organic Contaminants including pesticides and Herbicides							
Alachlor (ppb)	2	0	.20	n/a	N	2009	Runoff from herbicide used on row crops

Atrazine (ppb)	3	3	.31	n/a	N	2009	Runoff from herbicide used on row crops
Simazine (ppb)	4	4	.41	n/a	N	2009	Herbicide runoff
Volatile Organic Contaminants							
Chloroform (ppb)	n/a	n/a	1.78	.54-1.78	N	2008	By-product of drinking water chlorination
Bromodichloromethane (ppb)	n/a	n/a	.73	n/a	N	2008	By-product of drinking water chlorination
Trihalomethanes, Total (ppb)	n/a	80	2.51	n/a	N	2008	By-product of drinking water chlorination
Residual Disinfectants							
Total Chlorine (ppm)	4	4	1.98	1.42-2.57	N	2010	Water additive used to control microbes

Section 7:

While your drinking water meets EPA standard for arsenic, it does contain low levels of arsenic. EPA standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Section 8:

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 PWS 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>.

Section 9:

Central State University PWS monitored for radon in the finished water during 2008. One sample was collected and the radon level was 1.02 +/- 0.37 pCi/L. Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS RADON.

Section 10: License to Operate Status

We have a current, unconditioned license to operate our water system.

Section 11: How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings with the Central State University Facilities Director which meets daily at 7:30a.m. in the Facilities Management building.

For more information on your drinking water contact Eric L. Jones at (937)376-6622 or via email at ejones@centralstate.edu.

Section 12: 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.

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.

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.

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.

Picocuries per liter (pCi/L): A common measure of radioactivity.

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