



## Drinking Water Quality Report – 2016

Public Water System Identification Number: 4140095

*Este Informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.*

此份有關你的食水報告,內有重要資料和訊息,請找  
他人為你翻譯及解釋清楚。

### Water System Information:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jim Hosgood, Water Services Supervisor at (814) 863-6187.

### Sources of Water:

Penn State's drinking water supply originates from two main well fields: the Houserville Well Field containing three wells and the Big Hollow Well Field containing six wells. Penn State has water interconnects between the State College Borough Water System and the College Township Water System, which allows the exchange of water between the three systems.

The PA Department of Environmental Protection completed a Source Water Assessment of the Penn State Water System in 2003. Potential Sources of Contamination (PSOCs) documented in the report resulting from the assessment included industrial land use, major roads, and the former fire-training site located just off of Big Hollow Road. A summary is available on the PADEP website at [www.depstate.pa.us](http://www.depstate.pa.us) (Keyword: "DEP source water"). Copies of the complete reports are available for review at the PADEP Williamsport Regional Office, Records Management Unit at (570) 327-3636.

### Special Health Concerns:

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, persons with HIV/AIDS or other immune system disorders, some elderly persons, 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 at 1-800-426-4791.

## Monitoring Your Water:

Penn State routinely monitors your drinking water in accordance with applicable federal and state laws. Penn State is pleased to report that our drinking water met every federal and state regulatory requirement in 2016. The table entitled "Detected Sample Results" on pages 3 and 4 documents monitoring results for the Penn State system from January 1, 2016 to December 31, 2016. In this table you will find several technical terms and abbreviations that are defined below.

### **DEFINITIONS:**

*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.

*Treatment Technique (TT)* - A required process intended to reduce the level of a contaminant in drinking water

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

*pCi/L* = picocuries per liter (a measure of radioactivity)

*ppb* = parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )

*ppm* = parts per million, or milligrams per liter ( $\text{mg/L}$ )

*ppq* = parts per quadrillion, or picograms per liter

*ppt* = parts per trillion, or nanograms per liter

**DETECTED SAMPLE RESULTS:**

<b>Chemical Contaminants</b>								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Nitrate	10	10	2.15	1.68 - 4.20	ppm	2016	N	Runoff from fertilizer use.
Total Trihalomethanes (TTHM)	80	NA	2.31	2.46- 5.46	ppb	2016	N	By-product of drinking water disinfection
Calcium	NA	NA	55.72	32.1-82.1	ppm	2016	N	Naturally present in groundwater
Copper	1.3	1.3	0.603	0.603-0.603	ppm	2016	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Barium	2	2	0.0280	0.0164 - 0.0472	ppb	2015	N	Discharge of drilling wastes and metal refineries; erosion of natural deposits
Gross Beta Particle Activity *	50		1.1475	0 – 4.91	pCi/L	2012	N	Decay of natural and manmade deposits
Tritium **	20,000 pCi/l		1,968	0 – 1,968	pCi/L	2015	N	Decay of natural and manmade deposits
Haloacetic Acids (HAA)	60	n/a	1.82	1.71 – 1.87	ppb	2016	N	By-product of drinking water disinfection

\*The EPA considers 50 pCi/L to be the level of concern for beta particles.

\*\* Tritium contributes to a total "body dose" of 4 mrem/yr at a concentration of 20,000 pCi/l.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.40	0.64	0.64 – 1.80	ppm	01/01/16 to 12/31/16	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCL G	90 <sup>th</sup> Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	18.68	ppb	13 out of 103	N	Corrosion of household plumbing.
Copper	1.3	0	0.546	ppm	3 out of 103	N	Corrosion of household plumbing.

Microbial					
Contaminants	MCL	MCLG	Highest # or % of Positive Samples	Violation Y/N	Sources of Contamination
<b>Total Coliform Bacteria</b>	For systems that collect <40 samples/month: <b>More than 1 positive monthly sample</b> For systems that collect ≥ 40 samples/month: <b>5% of monthly samples are positive</b>	0	0	N	Naturally present in the environment.
<b>Fecal Coliform Bacteria or E. coli</b>	0	0	0	N	Human and animal fecal waste.

### **EDUCATIONAL INFORMATION:**

The 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:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- 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 stormwater runoff, and septic systems.
- 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, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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* (800-426-4791).

#### Information about 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 University 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>.