



60

2016

ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 1460042

NAME: SCHWENKSVILLE BOROUGH AUTHORITY

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

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 John Scully at 610-287-7772. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at the Dr. Donald M. Markley Building, 298 Main Street, Schwenksville, 7 pm, the second Wednesday of each month.

SOURCE(S) OF WATER:

Our water sources are Five (5) Municipal wells located throughout Schwenksville Borough and Lower Frederick Township, an interconnection with Aqua PA, and an Interconnection with the North Penn Water Authority.

A Source Water Assessment of our groundwater sources was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our sources are potentially most susceptible to volatile organic compounds. Schwenksville's wells were determined to be most susceptible to contamination from transportation corridors and agricultural activities ("A" ratings). Potential pollutants used in residential areas and at auto repair shops also pose a high threat to these wells ("B" ratings). The other potential contaminants in the protection area received "C" and "E" protection ratings. Although these potential sources of contamination (PSOCs) have lower protection priorities, the cumulative effect of the PSOCs on the system's wells should be taken into consideration.

A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: <http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045>. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Southeast Regional Office, Records Management Unit at (484)250-5900

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 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 microbial contaminants are available from the *Safe Drinking Water Hotline* (800-426-4791).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2016. The State allows 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 is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

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.

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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 (mg/L)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Arsenic	10	0	12	9-12	ppb	2016	Y	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste.
Barium	2	2	.12	0-0.12	ppm	2015	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2	4	1	N/A	ppm	2015	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Di(2-ethylhexyl) adipate	400	400	.24	0 -0.24	ppb	2015	N	Discharge from chemical factories.
Nitrate	10	10	1.67	1.24-1.67	ppm	2016	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
cis-1,2-Dichloroethylene	70	70	1.10	1.10-1.10	ppb	2016	N	Discharge from Industrial chemical factories.
Haloacetic Acids (Five)	60	N/A	3.0	3.0-3.0	ppb	2016	N	Byproduct of drinking water disinfection.
Trihalomethanes	80	N/A	11.4	11.4-11.4	ppb	2016	N	Byproduct of drinking water chlorination.
Xylenes Total	10	N/A	.1463	.1005-.1463	ppm	2013	N	Discharge from petroleum factories; discharge from chemical factories.
1,1-Dichloroethylene	7	7	1.7	1.7-1.7	ppb	2016	N	Discharge from Industrial chemical factories.
1,1-Dichloroethane	5	0	.9	0 -.9	ppm	2013	N	Discharge from Industrial chemical factories
Isopropylbenzene			.7	.7-.7	ppm	2013	N	Discharge from petroleum factories.
Toluene	1	1	.0008	N/A	ppm	2013	N	Discharge from petroleum factories.
Ethylbenzene	700	700	25.2	14.4-25.2	ppm	2013	N	Discharge from petroleum refineries.
Gross Alpha	15	15	11	2.62-11	pCi/L	2014	N	Erosion of natural deposits
Combined Uranium	20	20	5.3	.027-5.3	pCi/L	2013	N	Erosion of natural deposits
Combined Radium	5	0	3.4	0-3.4	pCi/L	2014	N	Erosion of natural deposits
Chlorine	MRDL=4	MRDLG=4	1.96	1.04-1.96	Ppm	Monthly	N	Water additive used to control microbes

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.4	0.4	0.4-2.16	ppm	2016	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Sources of Contamination
Lead	15	0	0	ppb	1	N	Corrosion of household plumbing.
Copper	1.3	1.3	.319	ppm	0	N	Corrosion of household plumbing.

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

Microbial (related to E. coli)					
Contaminants	MCL	MCLG	Positive Sample(s)	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.
Contaminants	TT	MCLG	Assessments/ Corrective Actions	Violation Y/N	Sources of Contamination
<i>E. coli</i>	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

Raw Source Water Microbial					
Contaminants	MCLG	Total # of Positive Samples	Dates	Violation Y/N	Sources of Contamination
<i>E. coli</i>	0	0	N/A	N	Human and animal fecal waste.

HEALTH EFFECTS:

Arsenic (ppb) – Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

OTHER VIOLATIONS:

While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs 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. Public notification of the arsenic exceedance was sent in March and April of 2015 and in January of 2017 and the wells that tested for elevated levels of arsenic have been shut down. The Authority is currently installing an arsenic removal system.

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 home plumbing. Schwenksville Borough Authority 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>.

THE FUTURE

The Schwenksville Borough Authority thanks you for the opportunity of providing your family with cost effective, quality water. The Authority is proud of the outstanding water and service it provides to its customers by our State licensed water works operators. Manager Michael Sullivan wishes to assure you that the Board of Directors has taken the necessary steps to guarantee a safe and plentiful water supply for you, well into the future. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.