

2018 Annual Drinking Water Quality Report
Warwick Township Municipal Authority
“Lititz” Water System PWSID# 7360116

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 very important information about your drinking water. Translate it, 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 call the Warwick Township Municipal Authority (“WTMA”) office at (717) 627-2379.** We want you to be informed about your water supply and are pleased to present this year’s Annual Drinking Water Quality Report. If you want to learn more, please attend any of our regularly scheduled meetings held on the third Tuesday of each month at 7:00 p.m. at the Warwick Township Municipal Building, 315 Clay Road, Lititz, PA 17543. **You can also visit www.warwicktownship.org/wtma for information about the Authority and your water supply and/or sanitary sewer service.**

SOURCES OF WATER: The 3,547 connections to WTMA’s Lititz Water System are supplied by seven groundwater wells located within Lititz Borough and Warwick Township. The wells have been determined to be under the direct influence of surface water. The WTMA purchases water from Lititz Borough under the terms of an Intermunicipal Agreement. The water enters the WTMA system through 11 points of interconnection to the Lititz Borough water system. The Borough’s water treatment plant is operated by Inframark and the distribution system is maintained by the Lititz Borough. Some of the water quality data for the Lititz Borough’s portion of the water system is provided by Inframark and is identified by (Lititz) next to the water quality parameter.

WTMA continues its efforts to protect your drinking water through its Wellhead Protection Program which was approved by the PADEP in 2002. The Wellhead Protection Committee consists of representatives of municipal and county government and agencies, local businesses and interested citizens. The group meets annually to discuss the status of existing programs and to suggest additional ways in which we can protect our precious resource. Due to the success of its “Ag-Management” Program, WTMA has been invited to share the results of this innovative partnership with others through forums such as the Pennsylvania Municipal Authorities Association, PADEP, and SRBC Seminars. The Ag-Management Program owes a large portion of its success to the outstanding cooperation provided by our farming partners.

A Source Water Assessment of the Lititz Borough wells was completed in July 2004 by the PA Department of Environmental Protection (PADEP). The Assessment has found that the wells are potentially most susceptible to industrial, residential and agricultural activities, accidental spills along roads and railways, auto repair shop activities, and dairy/egg laying operations. Overall, the Lititz Run Watershed has a medium to high risk for significant contamination. A copy of the Executive Summary of the assessment report is available by writing to Sue Barry, Lititz Borough Manager, 7 South Broad Street, Lititz, PA 17543. In December 2012, the USEPA recognized Lititz Borough and Warwick Township with an award for their Source Water Protection efforts. In December 2018, the WTMA and Lititz Borough updated their Wellhead Protection Plan to include an additional new well in the WTMA system and an existing well in the Lititz Borough system. The updated plan was submitted to the PADEP and approved in February 2019.

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

MONITORING AND TREATMENT OF YOUR DRINKING WATER: The Lititz Water System is routinely monitored for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of **January 1 to December 31, 2018**. 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 data could be from prior years in accordance with the Safe Drinking Water Act. The year in which the data is from prior years is noted in 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 that is 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.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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 (ug/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	Average Level Detected	Range of Detections	Units	Sample Date	Detections in Violation Y/N	Sources of Contamination
NITRATE (Lititz)	10	10	6	5 - 6	ppm	2018	N	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
HALOACETIC ACIDS	60	n/a	3.1	0 – 6.2	ppb	2018	N	By-product of drinking water chlorination
TRIHALOMETHANES	80	n/a	19.6	16.2 - 29	ppb	2018	N	By-product of drinking water chlorination

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

Entry Point Disinfectant Residual							
Contaminant	Min RDL	Lowest Level Detected	Range of Detections	Units	Sample Date	Detections in Violation Y/N	Sources of Contamination
CHLORINE (Lititz)	0.2	1.1	1.1 – 1.2	ppm	2018	N	Water additive to control microbes.

Distribution Disinfectant Residual							
Contaminant	MRDL	Month of Highest Average Result	Highest Average Result	Range of Average Results	Units	Results in Violation Y/N	Sources of Contamination
CHLORINE	4.0	December 2018	0.86	0.5 – 0.86	ppm	N	Water additive to control microbes.

Sampling for Total Coliform was also conducted in the distribution system in 2018. Total coliform was absent in 100% of samples.

2016 Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Detections in Violation Y/N	Likely Source of Contamination
COPPER	1.3	1.3	1.19	ppm	0 of 20	N	Corrosion of household plumbing; erosion of natural deposits; Leaching from wood preservatives
LEAD	15	0	3	ppb	0 of 40	N	Corrosion of household plumbing; Erosion of natural deposits

Turbidity							
Contaminant	Units	MCL	MCLG	Level Detected	Sample Date	Detections in Violation Y/N	Sources of Contamination
TURBIDITY (Lititz)	NTU	TT = 1 NTU for a single measurement	0	0.198	10/14/18	N	Soil runoff
		TT= at least 95% of monthly samples < 0.3 NTU		100%	January-December	N	

NOTICE OF VIOLATIONS:

Inframark failed to submit the SDWA5 report for May 2018 by the required due date. As a result, the Borough received a violation for failure to report individual and combined filter turbidity measurements for May of 2018. The report was later submitted and all results were within required limits.

The WTMA failed to monitor total coliform utilizing the heterotrophic plate count (HPC) method when one customer’s free chlorine residual was reported as <0.02 mg/L during July 2018 and August 2018. However, the customer’s water was sampled and tested for total coliform each month utilizing a different method and no coliforms were known to be present. Upon further evaluation, it was discovered that the customer had a water treatment system installed that resulted in the removal of the chlorine residual in their drinking water. The customer was notified in September 2018 of the failure to test for total coliform using the HPC method during July 2018 and August 2018. An HPC analysis was performed on the customer’s water in September 2018 and confirmed to be safe to drink.

The WTMA also inadvertently failed to monitor for Haloacetic Acids from one of its regular sample sites during the month of August 2018 due to a change in its monitoring schedule from previous years. The WTMA discovered this oversight in October 2018, notified the PADEP and sampling occurred from the site in November 2018. The sample result did not exceed the Maximum Contaminant Level .

There were no water quality violations in 2018.

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 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 storm water 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 storm water run-off 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 storm water run-off 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 assure 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 the 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 NITRATES: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. **Nitrate reduction facilities were online for the entire year of 2018.**

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. Lititz Borough 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 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>

WHAT THIS MEANS

As you can see under the 'violations' heading in the tables above, the "Lititz" water system had no water quality violations in 2018. MCL's are set at very stringent levels by the EPA to protect human health. The EPA has determined that your water is safe at these levels. WTMA is proud that your drinking water meets or exceeds all Federal and State requirements.