

Emmaus Consecutive Division

PWS ID: 3390075

Annual Water Quality Report for 2023



Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Lehigh County Authority's Commitment to Safe Drinking Water

Lehigh County Authority (LCA) is a public, nonprofit water and sewer utility dedicated to a single mission – to protect public health and the environment by providing high quality, safe, and reliable water and wastewater services.

Continuous improvement comes from our ongoing participation in programs and associations such as the Partnership for Safe Water program, Lehigh Valley Water Suppliers, American Water Works Association, the PA-DEP Source Water Protection Technical Assistance Program, and the Pennsylvania Association of Accredited Environmental Laboratories. It also comes from our professional staff of water plant operators, laboratory technicians, customer service personnel and distribution system operators who provide the highest quality service possible every single day.

This report contains detailed information about your water quality. As you review this information, please feel free to contact LCA to ask questions and learn more about our commitment to our customers. **Thank you!**

Service Area: Various properties and developments located in Lower Macungie, Upper Milford and Salisbury townships, just outside the Borough of Emmaus.

Number of Customers: 419 properties

Where Your Drinking Water Comes From:

LCA purchases an average of 58,805 gallons of water per day for your system from the Borough of Emmaus, where water is drawn from groundwater wells.

Water Treatment:

Emmaus treats its water at each well station to ensure your drinking water meets safety standards. For more information on the source of water, treatment techniques or water quality monitoring, please contact Emmaus at 610-965-9288.

Why is this report important?

The information contained in this report may be especially important for some groups of people, such as the elderly, people with compromised immune systems and infants (see “A Note From EPA” on pages 3 - 4). If you are viewing this report, but the water LCA provides is actually provided to tenants, patients, customers, or employees who use your property, please make a copy of this report available to them as well. Thank you!

We Protect the Source

The Pennsylvania Department of Environmental Protection (PA-DEP) completed a Source Water Assessment of the groundwater wells that supply water to your system in 2004.

An update to this assessment was completed in 2010 through PA-DEP’s Source Water Protection Technical Assistance Program. Public meetings were held in 2011 to review the assessment, and completed reports are available for review by LCA, the Borough of Emmaus, and local planning agencies.

The assessment found that Emmaus’ sources of water are located within residential, commercial, and industrial areas and, therefore, are susceptible to potential sources of contamination from related activities. Examples include leaking underground storage tanks, wintertime road salt applications and household activities such as lawn fertilizing and improper disposal of household hazardous wastes.

A summary of the report is available by contacting LCA. Additional information is available on the PA-DEP website at www.dep.state.pa.us (use Keyword “Source Water Assessment and Protection”). Visit our interactive webpage on Source Water Protection to learn ways you can help protect drinking water at <https://www.lehighcountyauthority.org/source-water-protection/>.

Ways You Can Help Protect the Source

Here are some ways you and your family can help protect source water:

Don't Dump: Anything you put on the ground or down a storm drain can make its way into our groundwater or other water sources. Contact the Lehigh County Office of Solid Waste at 610-799-4177 to find out how to dispose of household hazardous wastes.

Lawn Care: Use only as much fertilizer as your lawn or garden really needs and be sure to pick up after your pets!

Care for Your Car: Oil spots left on driveways and parking lots can wash away with the rain and will end up back in the environment.

Report Spills: Call 9-1-1 if you witness accidental or intentional dumping of unknown substances into our environment!

A Note from EPA

What Is in Your Drinking Water

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 runoff, 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, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (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 EPA's [Safe Drinking Water Hotline at 800-426-4791](tel:800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 at 800-426-4791. *If you are viewing this report, but the water LCA provides is actually provided to tenants, patients, customers or employees who use your property, please make a copy of this report available to them as well. Thank you!*

What's NOT in your drinking water?

In addition to the substances shown in this report, LCA tests your water for many other substances which were NOT detected in your water. These tests are routinely conducted according to schedules and procedures outlined in state and federal regulations for safe drinking water.

Substances LCA tests for include:

- Microbiological Contaminants
- Disinfection By-Products
- Radioactive Contaminants
- Volatile Organic Contaminants
- Inorganic Contaminants
- Synthetic Organic Contaminants

Except for those listed in the charts in this report, none of the substances we have tested for have been detected in your drinking water. For detailed information about our water quality monitoring program, please give us a call at 610-398-1444.

Water Testing Frequency

The monitoring results shown in this report includes information from calendar year 2023. Annual testing is not required for all contaminants. Some are on multi-year cycles based on schedules determined by state and federal regulations. We also test for some contaminants such as total coliform and chlorine many times throughout the year as results may change as environmental conditions change.

Because LCA purchases your water from the Borough of Emmaus, some of the water quality monitoring information provided in this report was collected by Emmaus. LCA monitors the distribution system that delivers the water to your property and conducts tests to ensure that your drinking water quality is maintained as it travels through the pipes to your property. If you would like more information about monitoring schedules or specific test results, please call our office at 610-398-1444 or the Borough of Emmaus at 610-965-9288.

Nitrates in Drinking Water

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 advice from your health care provider.

Any Water Quality Violations in 2023?

LCA faced no water quality violations in your water system in 2023!



LCA Mission: To protect public health and the environment by providing high-quality, safe, and reliable water and wastewater services.

Learn about PFAS

Visit the Lehigh County Authority website to learn more about Perfluoroalkyl and Polyfluoroalkyl substances at www.lehighcountyauthority.org/information-about-pfas/

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In October 2021, the Borough of Emmaus found elevated PFOS/PFOA levels in two of their wells, known as Well 1 and Well 2. Initial steps to address the affected wells included the immediate shut down of Well 2, customer notification, and continued monitoring of PFAS levels in the drinking water. According to Borough notifications, “well # 1 remains operational, as our studies have shown that we cannot adequately supply water to the Borough without this well operational.” The Borough continues to work with PA DEP to explore a long-term solution to address the issue. For more information, please contact the Director of Public Works or Borough Manager at 610-965-9292.

PFAS Testing Results

Contaminant Name	Reported Level (Average) ppt	Range of Results ppt
Perfluorobutanesulfonic acid (PFBS)	8.47	ND – 22.6
Perfluorodecanoic Acid (PFDA)	7.13	ND – 32.9
Perfluoroheptanoic acid (PFHpA)	29.9	2.06 – 127
Perfluorohexanesulfonic acid (PFHxS)	42.1	2.80 -198
Perfluorohexanoic acid (PFHxA)	38.7	3.00 – 181
Perfluorononanoic acid (PFNA)	96.2	ND – 478
Perfluorooctanesulfonic acid (PFOS)	303.0	4.1 – 1190
Perfluorooctanoic acid (PFOA)	39.4	4.74 – 119
Perfluoroundecanoic acid (PFUnA)	38.1	ND – 199

Water Quality Test Results

See pages 11 - 12 for abbreviations and definitions.

Chemical Contaminants

Contaminant Name	MCL (Maximum Allowed)	MCLG (Goal)	LCA's Water Test Results	Range of LCA's Test Results	Sample Date	Pass or Fail?	Typical Source
Chlorine (as Cl ₂) (ppm)	MaxRDL = 4	MaxRDLG = 4	1.30	0.87 – 1.30	2023	Pass	Water additive used to control microbes
Total Trihalomethanes (ppb)	80	N/A	20.0	N/A	2023	Pass	By-product of water system chlorination
Haloacetic Acids (ppb)	60	N/A	0.113	N/A	2023	Pass	By-product of water chlorination
Nitrate (ppm)	10	10	4.96	2.33 – 4.96	2023	Pass	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Di(2-ethylhexyl) adipate (ppb)	400	400	1.52	ND – 1.52	2023	Pass	Discharge from chemical factories
Di(2-ethylhexyl) phthalate (ppb)	6	0	1.9	ND – 1.9	2023	Pass	Discharge from rubber and chemical factories

Total Chlorine Residual

Entry Point Disinfectant Residual

Contaminant Name	MCL (Maximum Allowed)	MCLG (Goal)	LCA's Water Test Results	Range of LCA's Test Results	Sample Date	Pass or Fail?	Typical Source
Chlorine (as Cl ₂) (ppm)	MinRDL = Not less than 0.40 for more than 4 hours	N/A	Lowest Detected Level = 0.40	0.43 – 1.47	2023	Pass	Water additive used to kill bacteria

Lead and Copper Testing

Tested throughout the Emmaus Consecutive Division. Testing is done every 3 years. Most recent tests were done in 2022.

Contaminant Name	MCL (Maximum Allowed)	MCLG (Goal)	LCA's Water Test Results	Range of LCA's Test Results	Sample Date	Pass or Fail?	Typical Source
Copper (ppm)	AL = 1.3	1.3	0.101	All samples were < AL	2022	Pass	Corrosion of household plumbing
Lead (ppb)	AL = 15	0	ND	All samples were < AL	2022	Pass	Corrosion of household plumbing

Radioactive Contaminants

Contaminant Name	MCL (Maximum Allowed)	MCLG (Goal)	LCA's Water Test Results	Range of LCA's Test Results	Sample Date	Pass or Fail?	Typical Source
Combined Radium (pCi/L)	5	0	2.84	ND – 2.84	2023	Pass	Erosion of natural deposits
Uranium (ug/L)	30	0	1.16	ND – 1.16	2020	Pass	Erosion of natural deposits

Lead In Drinking Water

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. LCA 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Ways You Can Impact Your Water Quality

Run Water After Vacation

Water quality in your home is affected by how “stale” the water is from standing. When you leave your home or business for a long time, as you may when you take a vacation, the water in the pipes and plumbing doesn’t move. When water has been sitting in the pipes for days, bacteria can grow, and if you have lead or copper plumbing, those metals can start to seep into the water. The best thing to do when you get back from being away after a long time is to run the water on full blast for 30 seconds to two minutes before using it for drinking or cooking. And always use cold water for cooking, to draw in fresh water from the outside.

Safely Connect Outdoor Hoses

Connections to your water outside your home can also impact water quality. The outdoor spigot connection to a hose provides a potential way for pollutants to enter your plumbing. If you use the hose to spray chemicals on your yard by connecting the nozzle to a spray bottle, or if you have a sprinkler system connected, there is the potential for chemicals from the bottle or the lawn to be accidentally sucked back into your internal plumbing. To prevent this from happening, we recommend (and in some states it is the law) that you have a backflow prevention device installed to prevent that from happening.

Water Hardness, pH & Other Useful Info

Water “hardness” is a measure of the mineral content in your water. These minerals, such as calcium and magnesium, are essential to human health and do not need to be removed from your drinking water. However, some customers prefer to remove these minerals with a water softener to avoid mineral deposits on faucets and other fixtures.

Hardness Scale:

- 0 - 5 grains per gallon = Soft Water
- 6 - 10 grains per gallon = Moderately Hard Water
- > 11 grains per gallon = Hard Water

Secondary Contaminant Analysis

Secondary contaminants are associated with the aesthetic qualities of drinking water, such as taste, smell, color, and formation of deposits on plumbing fixtures. When a secondary contaminant MCL is exceeded, you may notice a change in the color, smell, or taste of your tap water.

Contaminant Name	MCL	Your Water
Alkalinity (ppm)	N/A	164
Calcium (ppm)	N/A	39.7
Iron (ppm)	0.3	ND
Magnesium (ppm)	N/A	23.3
Manganese (ppm)	0.05	ND
pH (standard units)	6.5 – 8.5	8.19
Sodium (ppm)	N/A	13.9
Total Dissolved Solids (ppm)	500	208
Total Hardness (grains per gallon)	N/A	12

Additional Resources

Information on lead in drinking water: www.epa.gov/safewater/lead

Information on groundwater: <https://waterdata.usgs.gov/nwis> and <http://www.epa.gov/ground-water-and-drinking-water/>

Delaware River Basin Commission: <https://www.nj.gov/drbc/>

The Safe Drinking Water Act: www.epa.gov/sdwa

CDC Guide to Understanding your Water Quality Report (also known as the Consumer Confidence Report): http://www.cdc.gov/healthywater/drinking/public/understanding_ccr.html

American Water Works Association: <http://www.awwa.org>

Water Environment Federation: <http://www.wef.org>

Pennsylvania Department of Health: 1-877-724-3258 | <https://www.health.pa.gov/>

Abbreviations & Definitions

MCLG - Maximum Contaminant Level Goal: 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.

MCL - Maximum Contaminant Level: 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.

TT - Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

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

MinRDL - Minimum Residual Disinfectant Level: The minimum level of residual disinfectant required at the entry point to the distribution system.

MaxRDL - Maximum Residual Disinfectant Level: 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.

MaxRDLG - Maximum Residual Disinfectant Level Goal: This is the lowest amount of cleaning chemical drinking water should have because it is the lowest amount needed to make sure bacteria and viruses can't live.

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.

pCi/L - Picocuries per liter (a measure of radioactivity)

N/A - Not applicable

ND - Not detected

NR - Monitoring not required, but recommended

NTU - Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.

PPM - Part Per Million = 1 drop of water in a hot tub

PPB – Part Per Billion = 1 drop of water in an Olympic size swimming pool.





Lehigh County Authority

Keep in Touch with LCA!

Monthly Board Meetings

We need your understanding and support to be successful, so we hope you will get involved with us all the ways you can on projects, programs, and policies. You are welcome to attend our Board meetings. We meet two times each month and a meeting agenda is posted at our website before each meeting. We always make time to hear from guests and answer questions so please join us to learn more about what we're working on. Your input is important to us! Details may be found on our website at <https://www.lehighcountyauthority.org/meetings-minutes>.

Social Media

One way to stay connected with us is by following us on Facebook, Twitter, Instagram, or LinkedIn. We share the latest news about big projects we're working on, updates on service interruptions, and helpful tips on conservation, landscaping, and how to protect your pipes and water meter.

Projects and Rates

Infrastructure projects and our rates go hand in hand. We can't keep the system in top shape without your help, so we want you to be as informed as possible about what we need and why. Check out our website to learn about projects and ways you can have input to them.

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