



2022 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 7360078

NAME: Manheim Area Water and Sewer 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 Mark Tyson at 717-665-2737.

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 the second Thursday at 7:00 P.M. of each month at 15 E High St, Manheim.

SOURCE(S) OF WATER:

Our water sources are:

4 – Well – Manheim

6 – Well - Manheim

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, 2022. 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 ($\mu\text{g/L}$)

MFL = million fibers per liter

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 |
| Chlorine | 4 | 4 | 1.75 | 1.35-1.75 | ppm | August, 2022 | N | Water additive used to control microbes. |
| HAA5 | 60 | 60 | 6.23 | 1.08-6.23 | ppb | 2022 | N | By-product of drinking water disinfection. |
| Nitrate | 10 | 10 | 6.35 | 6.04-6.35 | ppm | 2022 | N | Runoff from fertilizer use. |
| TTHM | 80 | 80 | 28.5 | 6.9-28.5 | ppb | 2022 | N | By-product of drinking water chlorination. |
| PCE | 70 | 70 | 0.5 | <0.5-<0.5 | ppb | 2022 | N | Discharge from textile-finishing factories. |
| Asbestos | 7 | 7 | <0.20 | <0.20 | MFL | 2022 | N | Decay of asbestos cement water mains; Erosion of natural deposits. |
| Cyanide | 200 | 200 | <50.0 | <50.0 | ppb | 2021 | N | Discharge from steel/metal factories; Discharge from plastic and fertilizer factories |

| Entry Point Disinfectant Residual | | | | | | | |
|------------------------------------------|--------------------------------------|------------------------------|----------------------------|--------------|--------------------|----------------------|------------------------------------------|
| Contaminant | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Units | Sample Date | Violation Y/N | Sources of Contamination |
| Chlorine | 0.2 | 0.84 | 0.84-2.30 | ppm | 2022 | N | Water additive used to control microbes. |

| Lead and Copper | | | | | | | |
|------------------------|--------------------------|-------------|-----------------------------------------|--------------|-------------------------------------------|----------------------|----------------------------------|
| Contaminant | Action Level (AL) | MCLG | 90th Percentile Value | Units | # of Sites Above AL of Total Sites | Violation Y/N | Sources of Contamination |
| Lead | 15 | 0 | 2 | ppb | 0/20 | N | Corrosion of household plumbing. |
| Copper | 1.3 | 1.3 | 0.204 | ppm | 0/20 | 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. |

| Turbidity | | | | | | |
|--------------------|----------------------------------------------------|-------------|-----------------------|--------------------|----------------------|--------------------------------|
| Contaminant | MCL | MCLG | Level Detected | Sample Date | Violation Y/N | Source of Contamination |
| Turbidity | TT=2 NTU for a single measurement | 0 | 0.162 | 5-12-22 | N | Soil runoff |
| | TT= at least 95% of monthly samples \leq 1.0 NTU | | 100.00% | N/A | N | |

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. In 2022, we found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment to identify problems and to correct any problems that were found during these assessments. During the past year, we were required to conduct one Level 1 Assessment. The Assessment did not reveal any corrective actions needed, however, MAWSA did relocate one of the sampling locations due to the previous location being exposed to the elements.

OTHER VIOLATIONS:

MAWSA had two monitoring violations in 2022:

1. During the month of January 2022, our online chlorine analyzer malfunctioned over the weekend (January 30th and 31st), and we were unable to retrieve the chlorine data for the system on those days. The unit was repaired and put back into service, however, we missed taking a chlorine sample on those days. This also impacted our filter reporting as we did not have a chlorine value for Log Inactivation Values. Please see the Tier 3 Public Notice attached to the CCR report.
2. In the fourth quarter of 2022, we took Disinfection By-Product (TTHM and HAA5) at locations that were not approved by PA DEP. In communication with the DEP, this issue was corrected, and the samples will now be taken at approved locations. Please see the Tier 3 Public Notice attached to the CCR report.

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 prescribe 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. The Manheim Area Water and Sewer 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>.

SPECIAL EDUCATIONAL STATEMENT FOR NITRATE:

Nitrate in drinking water at levels above 10 ppm is a health risk for infants 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, ask advice from your health care provider. The highest concentration for nitrate during 2022 was 6.35 ppm (the MCL is 10 ppm).

OTHER INFORMATION:

The Manheim Area Water and Sewer Authority has a constant goal of providing you with a dependable supply of safe drinking water. We want you to understand some of the efforts made to improve the water treatment process, and to protect our water resources. MAWSA is dedicated to providing top quality water to every tap every day. It has been our privilege to assure that our system's water quality meets, or exceeds, regulatory requirements when it reaches your tap each day. We ask that all of our customers help us to protect our water sources, which are the heart of our community, our way of life, and our children's future. Thank you.

PUBLIC NOTICE

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
 FAILURE TO MONITOR**

**ESTE INFORME CONTIENE INFORMACIÓN IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE
 ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.**

Monitoring Requirements Not Met for Manheim Area Water and Sewer Authority

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 01/01/22-12/31/22 we failed to monitor for the following contaminants and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, the required sampling frequency, how many samples we took, when samples should have been taken, and the date on which corrective action samples were (or will be) taken.

| Contaminant | Required sampling frequency | Number of samples taken | When all samples should have been taken | When samples were or will be taken |
|------------------------------------------|-----------------------------|-------------------------|-----------------------------------------------|---------------------------------------------|
| #1 Free Chlorine Residual | Daily | 29 | January 30 th and 31 st | Daily on all other days |
| #2 Disinfection Byproducts (TTHM & HAA5) | Quarterly | 2 | Not taken at proper locations | First quarter of 2023 at approved locations |
| | | | | |

What happened? What was done? When will it be resolved?

#1 Our Chlorine analyzer malfunctioned on January 30th and 31st. We missed chlorine samples on these days. The unit was repaired and put back online.

#2 In the fourth quarter of 2022, we took Disinfection By-Product (TTHM and HAA5) at locations that were not approved by PA DEP. We have resolved this issue, and have taken samples at approved locations in the first quarter of 2023.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information regarding this notice, please contact Mark Tyson at 717-665-2737.

Certified by:

Signature:  Date: 5-8-23

Print Name and Title: Mark Tyson, Lead Water Operator

As a representative of the Public Water system indicated above, I certify that public notification addressing the above violation was distributed to all customers in accordance with the delivery requirements outlined in Chapter 25 PA Code 109 Subchapter D of the Department of Environmental Protection (DEP's) regulations. The following methods of distribution were used: Attached to the 2022 CCR

PWS ID#: 7360078

Date distributed: _____



Earth Day Project 2023

The MAWSA team spent the early morning hours of Earth Day picking up litter, trash, and debris from portions of Chiques Creek and Rife Run in Manheim.

The event was sanctioned by the Chiques Creek Watershed Alliance (CCWA) and the volunteers consisted of MAWSA employees and family members, Board membership, and “friends” of the Chiques Creek Watershed.

The area covered was the stretch in Chiques Creek from the bridge at the Wastewater Treatment Plant to the Railroad tracks and Rife Run from Chiques Creek to the 772 bridge on West High Street. These types of efforts aid in improving source-water quality and maintaining the health of the stream and areas downstream to the Susquehanna.

We found various types of debris such as bags, toys, a chair, a softball base, the bottom of a rotary lawnmower and a total of 13 tires, which Hondru Ford graciously accepted for recycling.

