

2022 “ANNUAL DRINKING WATER QUALITY REPORT”

South Middleton Township Municipal Authority

PWSID #: 7210050

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 explains our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Josephine Hall at 717-258-6476. 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 on the second Monday of each month at 6:00 P.M., 345 Lear Lane, Boiling Springs, PA 17007.

SOURCES OF WATER:

Our water system consists of three groundwater wells, as described below:

- Well No. 1 draws from the Tomstown Aquifer, was developed in 1972 and is located approximately 2½ miles west of Boiling Springs.
- Well No. 2 draws from the Elbrook Aquifer, was developed in 1975 and is located approximately one mile west of Boiling Springs.
- Well No. 3 draws from the Rockdale Run Aquifer, was developed in 1985 and is located southwest of Carlisle.

We have an Annual Water Report available in our office that provides more information such as history, production and water data.

A Source Water Assessment of our sources was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our sources are potentially most susceptible to traditional point source contaminants ranging from gas stations, industrial manufacturers and auto repair shops, in addition to traditional non-point potential contaminant activities ranging from residential and agricultural activities to sewer transmission lines and transportation corridors. Overall, our sources have little risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page:

www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045. Complete reports were distributed to municipalities, water suppliers, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Southcentral Regional Office, Records Management Unit at 909 Elmerton Avenue, Harrisburg, PA 17110-8200.

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 regulations. The following tables show the results of our monitoring for the period of January 1 through December 31, 2021. 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 tables.

DEFINITIONS AND ABBREVIATIONS:

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 (µg/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:

<i>Chemical Contaminants</i>								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine (Distribution System)	MRDL = 4	MRDL= 4	0.97	0.41 – 1.38	mg/l	2022	N	Water additive used to control microbes
Barium	2	2	0.051	0.042 – 0.051	mg/l	2021	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	100	100	2.0	1.0 – 2.0	ug/l	2021	N	Discharge from steel and pulp mills; erosion of natural deposits.
Trihalomethanes Total (TTHM)	80	80	13.15	2.3 – 44.8	ug/l	2022	N	By-products of drinking water chlorination
Haloacetic Acids Five (HAA5)	60	60	2.83	0.0 – 9.1	ug/l	2022	N	By-product of drinking water chlorination

Nitrate	10	10	3.43	2.83 – 3.89	mg/l	2022	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite	1	1	0.18	0.17 – 0.19	mg/L	2020	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Tetra-chloroethylene	5	0	0.73	0.6 – 0.9	ug/l	2022	N	Discharge from factories and dry cleaners
Xylenes (Total)	10	10	0.0022	N/A	mg/l	2018	N	Discharge from petroleum factories, Discharge from chemical factories
Dichloroacetic Acid	60	60	2.4	0.0 – 7.41	ug/l	2022	N	By-product of drinking water chlorination
Trichloroacetic Acid	60	60	0.52	0.0 – 2.01	ug/l	2022	N	By-product of drinking water chlorination
Bromo-dichloromethane (THM)	n/a	n/a	3.05	0.0 – 8.8	ug/l	2022	N	Naturally occurring in the environment or from runoff
Chloro-dibromomethane (THM)	n/a	n/a	0.103	0.0 – 3.2	ug/l	2022	N	Naturally occurring in the environment or from runoff
Chloroform (THM)	n/a	n/a	0.904	0.22 – 3.27	ug/l	2022	N	Naturally occurring in the environment or from runoff

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	0.9	0.9 – 1.45	mg/l	2022	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 (2022)	15	0	1.6	ppb	0 out of 34	N	Corrosion of household plumbing.
Copper (2022)	1.3	1.3	.24	ppm	0 out of 34	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
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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.
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Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard in the future

<i>UCMR4 Analysis – Unregulated Contaminants</i>							
Contaminant	MCL in CCR Units	Result	Range	Units	Sample Date	Violation Y/N	Sources of Contamination
Bromochloroacetic Acid	N/A	1.61	1.61 to 2.14	ug/l	2018	N/A	By-product of drinking water chlorination
Bromodichloroacetic Acid	N/A	1.07	0.853 to 1.07	ug/l	2018	N/A	By-product of drinking water chlorination
Chlorodi-bromoacetic Acid	N/A	0.441	0.408 to 0.441	ug/l	2018	N/A	By-product of drinking water chlorination
Dibromoacetic Acid	N/A	0.509	0.407 to 0.509	ug/l	2018	N/A	By-product of drinking water chlorination
Dichloroacetic Acid	N/A	6.69	4.34 to 6.69	ug/l	2018	N/A	By-product of drinking water chlorination
Trichloroacetic Acid	N/A	2.49	1.44 to 2.49	ug/l	2018	N/A	By-product of drinking water chlorination

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

We are pleased to report that your drinking water meets or exceeds all Federal and State requirements. Although we routinely test for numerous other contaminants, only the contaminants that were detected within the past five years have been reported in the above table.

VIOLATIONS

In 2022, the Authority received a violation for not submitting the Consumer Confidence Report Certification Form to the Department of Environmental Protection in the required time frame, the Department did receive the Certification and compliance was achieved. The Authority received a second violation for not sampling the correct number of locations for TTHM and HAA5s, these are Disinfection By-Products, the Authority worked with the Department to activate the additional sample locations and has corrected that issue as of second quarter 2022. The Public Notification form for the violation can be found attached to this 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 South Middleton Township Municipal 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>.

WATER CONSERVATION:

The conservation of water is important and has far reaching effects. Our community water system is based on groundwater wells that are replenished through the natural rainwater cycle.

Please use water wisely: install water-saving faucets, showerheads and toilets, and use common sense when washing your vehicles and watering your lawns and gardens.

The cumulative effect of our efforts will protect and preserve our water resources and help ensure the adequate and reliable supply of water for our future needs.