

# 2022 Water Quality Report

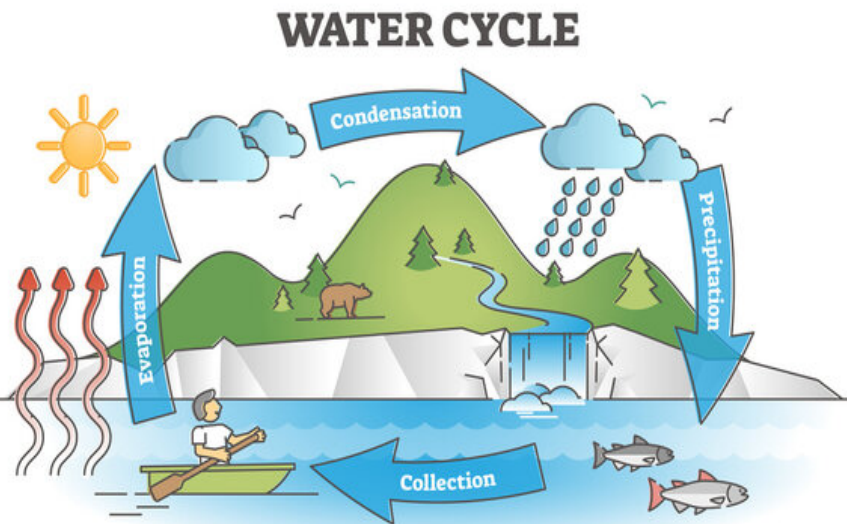
proudly presented by the  
**Altoona Water Authority**  
PWSID 4070023

The Altoona Water Authority (AWA) takes great pleasure in presenting the 2022 Annual Drinking Water Quality Report. This report provides information about your water system, the quality of your water and other important health related information. The U.S. Environmental Protection Agency and Pennsylvania Department of Environmental Protection require public water systems to provide annual Consumer Confidence Reports to their customers.

Our mission at the AWA is to insure that we have a clean, safe, reliable water supply. The information, tabulations and data provided in this report clearly support that we are meeting or exceeding our goals and will continue to work diligently to guarantee water quality excellence and consumer confidence on a daily basis. Please visit our website at [www.altoonawater.com](http://www.altoonawater.com) to get the "clear facts" on your water system and the benefits publicly owned water systems bring to you.

You are invited to attend our regularly scheduled Board meetings. Meetings are held on the third Thursday of every month at 9:00am at the AWA's Administrative Office located at 900 Chestnut Avenue in Altoona. The AWA Board of Directors for 2022 are: **Chairman William Neugebauer, Vice Chairman Omar Strohm, Secretary Barbara Kooman, Treasurer Cory Gehret and Asst. Sec./Treasurer Jack Speece.**

We hope you take the time to read this report. If you have any questions or would like additional information, please contact us at (814) 949-2222, or at [www.altoonawater.com](http://www.altoonawater.com). We also welcome the opportunity to give guided tours through any of our water treatment facilities.



## WATER QUALITY and HEALTH RELATED INFORMATION

The sources of drinking water (both tap 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 radioactive material and can pick up substances resulting from the presence of animals or human activity. Common contaminants that may be present in source water are listed in the 2022 Altoona Water Authority Water Quality Table.

All 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.

In order to ensure that tap water is safe to drink, the EPA prescribes monitoring to ensure that your drinking water does not exceed certain Maximum Contaminant Levels (MCLs). These MCLs are set at very stringent levels for the protection of public health. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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. The guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from The EPA/CDC Safe Drinking Water Hotline at 1-800-426-4791.

## A CHANGE FOR THE BETTER BEGINS WITH YOU

One of the best ways to prevent the flow of pollution into our local waterways is to prevent water from leaving your property as you perform daily activities.

By eliminating over-irrigation and by sweeping hard surfaces instead of cleaning them with water, you can help prevent urban runoff and the discharge of pollutants into our waterways!

**AROUND YOUR HOME:** Sweep up trash, dirt, and debris and place it in the garbage. Reduce bacteria in our waterways by picking up litter from around your yard and neighborhood and carry bags to pick up after your pet.

**IN YOUR YARD:** Yard waste has the potential to carry hazardous landscaping chemicals like pesticides, herbicides and fertilizers into your local watershed. Sweep up yard waste instead of hosing it away. Stop irrigation runoff by adjusting sprinklers and reducing watering times.

**FROM YOUR CAR:** Your car can be a source of automotive pollutants such as motor oil, anti-freeze, transmission fluids, and heavy metals. Check your vehicle regularly for fluid leaks. Use a funnel to prevent spills and keep rags and absorbents within reach. Use drip pans, drop cloths, or containers to collect fluids when making repairs or collecting leaks. Wash your car on your lawn or direct wash water to a landscaped surface to avoid releasing automotive pollution into our waterways.



The AWA water supply originates from twelve (12) surface water locations in west-central Blair County. These twelve reservoirs, which are shown on the above map, are located in the Juniata River watershed of the Susquehanna River Basin. Potential source water contamination threats for our particular area include: transportation corridors, the Horseshoe Curve railroad tracks, illegal dumping, abandoned mine discharges, faulty septic systems and natural gas wells and pipelines.

The Altoona Water Authority has a complete Source Water Assessment and Protection Plan for the entire watershed system. Copies of the complete report are available for review. Please call (814) 944-2320 to set up an appointment. Summary reports are available at the Pennsylvania Department of Environmental Protection website. ([www.dep.state.pa.us](http://www.dep.state.pa.us), keyword "source water protection").

The AWA protects your watersheds. Before your drinking water reaches you, it is treated at one of our six (6) water treatment plants. Inside the treatment plants, water is first treated with ozone to destroy bacteria and other organisms such as Giardia and Cryptosporidia, oxidize metals and to reduce other organic materials that naturally occur in water. The water is then coagulated and flocculated. Water then passes through dual media filters to remove sediment and particles. The filtered water is treated with a corrosion inhibitor to reduce its ability to react with water distribution pipes and customer plumbing systems. Finally, chlorine is applied to ensure the water is disinfected and safe before being distributed to our customers' homes and businesses.

The distribution system, storage tanks and interconnections are tested rigorously and regularly. This testing regiment ensures that water quality in our distribution system complies with Safe Drinking Water regulations long after leaving our treatment facilities.

2022 ALTOONA WATER QUALITY TABLE

Contaminant Name	Highest Level Allowed	Treatment Goal MCLG	Highest Level Detected by AWA	Range of Detection by AWA	Sources of Contaminants in Drinking Water	Potential Health Effects	Violation by AWA
<b>MICROBIOLOGICAL CONTAMINANTS</b>							
Total Coliform Bacteria	Less than 2% positive of monthly samples	0	1.23%	0- 1.23%	Naturally present in the environment.	Indicator that other potentially harmful bacteria may be present.	NO
E. Coli Bacteria	0	0	1	ND-1	Human and animal fecal waste.	Gastrointestinal disorder.	NO
<b>TURBIDITY</b>							
Turbidity	Treatment Technique= 0.3 NTU 95% of monthly samples <=0.3 NTU	n/a	0.14 <b>TIPTON (06/21/22)</b> Lowest monthly % = 100%	0.01 - 0.14 NTU	Soil runoff.	Interferes with disinfection and may indicate the presence of disease causing organism.	NO
<b>INORGANIC CONTAMINANTS</b>							
Arsenic (2018)	10 ppb	0	0.376 ppb	ND - 0.376 ppb	Erosions of natural deposits; Runoff from orchards, Runoffs from glass and electronics production wastes.	Some people who drink water containing Arsenic in excess of the MCL over years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.	NO
Thallium	2 ppb	0.5	5.72 ppb	ND-5.72 ppb	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.	Some people who drink water containing Thallium in excess of the MCL over years could experience hair loss, changes in their blood, or problems with kidneys, intestine or liver.	YES
Barium	2.0 ppm	2.0 ppm	0.0569 ppm	0.0283 - 0.0569 ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.	NO
Bromates	10 ppb	10 ppb	HIGHEST RAA 1.09	ND - 2.4 ppb	By-product of drinking water chlorination.	Some people who drink water containing bromate in excess of the MCL over many years have an increased risk of getting cancer	NO
Copper	1.3 ppm= Action Level (AL)	1.3 ppm	90th percentile 0.032 ppm	ND - 0.032 ppm <b>NO LOCATIONS EXCEEDED AL</b>	Corrosion of household plumbing.	Gastrointestinal disorder. Excess over MCL may cause liver or kidney damage.	NO
Lead	15 ppb= Action Level	N.D.	90th percentile 1.55 ppb	ND - 1.55 ppb <b>NO LOCATIONS EXCEEDED AL</b>	Corrosion of household plumbing.	Adults - Kidney and high blood pressure problems. Children - Delays in physical and mental development.	NO
Chromium (2018)	100 ppb	100	0.559 ppb	ND - 0.559 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.	Chromium excess of the MCL over years could experience Dermatitis.	NO
Nickel (2018)	100 ppb	100	1.74 ppb	ND - 1.74 ppb	Industrial Sources and/ or Agriculture activities.	Nickel has the potential to cause the following health effects from long term exposure at levels above MCL: weight loss, heart & liver damage and Dermatitis.	NO
Total Trihalomethanes (TTHM)	80 ppb	n/a	Highest running annual average= 26.76 ppb	5.31 - 73.7 ppb	By-product of drinking water chlorination.	Excess over many years may increase risk of cancer and cause liver and kidney disorders.	NO
Halogenated Acetic Acids (HAA5s)	80 ppb	n/a	Highest running annual average= 15.7 ppb	5.78 - 33.4 ppb	By-product of drinking water chlorination.	Excess over many years may increase risk of cancer and cause liver and kidney disorders.	NO
Chlorine AWA Distribution System	4 ppm= Maximum Residual Disinfectant Level (MRDL)	4 ppm	Highest monthly average = 1.54 ppm (March 2022)	1.06 to 1.54 Monthly Averages	Water additives used to control microbes.	Excess could cause eye or nose irritation or stomach discomfort.	YES

**SYNTHETIC ORGANIC CHEMICAL (SOC) - NO SOC'S DETECTED IN 2022**

**Volatile Organic Compound (VOC)**

Contaminant Name	Location ID	MCL	Result	Range of Detection	Sources	Potential Health Effects	Violation
Ethylbenzene (2021)	Belwood EP 113	0.7	0.0112	0 - 0.0112	Found in solvents, paints, ink and rubber.	Excess exposure could result in throat irritation or eye irritation.	NO
Xylenes (Total) (2021)	Belwood EP 113	10	0.0911	0 - 0.0911	Found in ink, rubber and adhesives	Excess exposure could result in disturbances of cognitive abilities.	NO

**ENTRY POINT DISINFECTANT RESIDUAL**

Contaminant Name	Location ID	Minimum Disinfectant Level Allowed	Lowest Level Detected	Range of Detections	Sources of Contamination	Violation by AWA
Chlorine	Tipton EP 111	0.2 ppm	1.31 ppm	06/11/22	Water additive used to control microbes.	NO
Chlorine	Belwood EP 113	0.2 ppm	1.51 ppm	01/17/22		NO
Chlorine	Plane Nine EP 115	0.2 ppm	1.03 ppm	09/17/22		NO
Chlorine	HSC EP 116	0.2 ppm	0.78 ppm	06/09/22		NO
Chlorine	Kettle EP 117	0.2 ppm	0.27 ppm	09/15/22		NO
Chlorine	Mill Run EP 119	0.2 ppm	0.37 ppm	09/14/22		NO

**TOTAL ORGANIC CARBON (TOC)**

Contaminant	Percent (%) Removal Required	Range of percent removal achieved	Number of months out of compliance	Sources of Contamination	Violation by AWA
Total Organic Carbon	35%	22% - 39%	None - Met alternate compliance criteria	Naturally present in the environment.	NO

**WATER QUALITY TABLE NOTES:**

840 Distribution samples were collected in 2022. All analysis complied with SDWA standards.

214 Special Samples & Check samples were collected in 2022. All analysis complied with SDWA standards.

**RAW WATER QUALITY TABLE**

**MICROBIOLOGICAL CONTAMINANTS**

Contaminant Name	Highest Level Detected by AWA	Range of Detection by AWA	Sources of Contaminants in Drinking Water	Potential Health Effects	Violation by AWA
Cryptosporidium	0.1 Cysts/100L	0 - 0.1	Naturally present in the environment.	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.	NO
E. Coli Bacteria	78.2 MPN	1 - 78.2	Human and animal fecal waste.	Gastrointestinal disorder.	NO

**TURBIDITY**

Turbidity	35.49 <i>PLANE NINE WTP (06/21/2022)</i>	0.10 - 35.49	Soil runoff.	Interferes with disinfection and may indicate the presence of disease causing organisms.	NO
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**RAW WATER QUALITY TABLE NOTES:**

The Altoona Water Authority began testing for E-Coli & Cryptosporidium in late 2015 to comply with the LT2 Enhanced Surface Water Treatment Rule. All results have been within normal, expected ranges.

LT2 Testing for all sources was completed in February 2018.



**AWA customers can find us on Facebook! "Like" us to receive the latest updates**

**and information. You will find a link provided on our website's homepage.**

The AWA routinely monitors for contaminants in your drinking water according to Federal and State regulations. Throughout 2022, the AWA performed more than **3,000 tests and is pleased to announce that we had no MCL violations.** The Water Quality Table presents the results of our monitoring for the period of January 1 to December 31, 2022. The table shows the results for every regulated contaminant that we detected in the water, even in the minutest traces. The table contains the nature of each substance, the highest level allowed by regulation, the ideal goals for public health, the amount detected and the usual sources of contamination. It is also important to note that the table does not include more than 80 other contaminants that are routinely tested for, but were all below the detectable levels. The following definitions of terms and abbreviations should further explain the table.

**Remember that all AWA employees must carry visible proper identification. If you are uncertain about anyone claiming to be an AWA employee, please do not allow them to enter your home. Contact us at 814-949-2222, x2001 to confirm the employee's validity.**



Contaminant Name	Sample Program	Highest Level Detected	Range detected	Potential Health Effects	Sources of Contamination	Violation by AWA
<b>Unregulated Contaminants</b>						
AM2						
HAA5	UCMR 4 - DISTRIBUTION	38.6 ppb	2.72 to 38.6 ppb	None known	Unknown	NO
HAAGBr	UCMR 4 - DISTRIBUTION	5.71 ppb	0.87 to 5.71 ppb	None known	Unknown	NO
HAA9	UCMR 4 - DISTRIBUTION	43.8 ppb	3.23 to 43.8 ppb	None known	Unknown	NO
AM1						
Manganese	UCMR 4 - EP 117 - KETTLE WTP	24.6 ppb	8.46 to 24.6 ppb	None known	Unknown	NO
Manganese	UCMR 4 - EP 119 - MILL RUN WTP	204 ppb	3.06 to 204 ppb	None known	Unknown	NO
AM2						
TOC	UCMR 4 - EP 117 - KETTLE WTP	2320 ppb	1360 to 2320 ppb	None known	Naturally present in the environment	NO
TOC	UCMR 4 - EP 119 - MILL RUN WTP	1510 ppb	887 to 1510 ppb	None known	Naturally present in the environment	NO
Public Water Suppliers serving a population over 10000 MUST participate in the EPA's SDWA Unregulated Contaminant Monitoring Rule Program These parameters were detected while complying with EPA's Unregulated Contaminant Monitoring Rule #4 2020(Kettle & Mill Run)						

The following definitions of terms and abbreviations should further explain the table:

- Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water.
- 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 contamination.
- Action Level (AL)** - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- Treatment Technique (TT)** - A required process intended to reduce the level of contaminant in drinking water.
- Minimum Residual Disinfectant Level (MinRDL)** - The minimum level of residual disinfectant required at the entry point to the distribution system.
- ppm** - Parts per million.
- ppb** - Parts per billion.
- pCi/L** - Pico curies per liter - a measure of radioactivity in water.
- cfu** - colony forming units - a measure of the heterotrophic plate count bacteria in water.
- ND** - non-detectable - the level of a contaminant is below the level of detection by laboratory analysis.
- NA** - not applicable.

**2022 MONITORING VIOLATIONS**

VIOLATION ID	LOC./EP	VIOLATION TYPE	DATE	CONTAMINANT	Enforcement Action
61504	116	CHECK SAMPLING -04	07/01/22	THALLIUM (IOC)	COMPLIANCE ACHIEVED
61503	116	SINGLE SAMPLE MCL -01	07/01/22	THALLIUM (IOC)	COMPLIANCE ACHIEVED
08213	116	MONITORING-REPORTING -03	10/1/2022	THALLIUM (IOC)	LAB ERROR
61505	116	PUBLIC NOTIFICATION TIER 2 -N2	11/10/2022	THALLIUM (IOC)	NOTIFIED PUBLIC
61480	DIST	SAMPLING ERROR- 4 OUT OF 8 DBP MONITORING	11/3/2022	DBP	SAMPLER ERROR
61481	DIST	MONITORING-REPORTING -03	11/3/2022	DBP	LAB ERROR
63755	116	FAILURE TO CONDUCT REQUIRED MONITORING	11/3/2022	TOC	SAMPLER ERROR

For more information on the 2022 Water Quality Report, call Doug DeAngelis at 814-944-2320 or email him at DDeAngelis@altoonawater.com