Williamsport Municipal Water Authority
2021
Water Quality Report

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wmwa-wsa.org

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.

March 2022

Partnership for Safe Water

The Partnership for Safe Water is a voluntary effort of drinking water organizations including the U.S. EPA, PaDEP, American Water Works Association, and water utilities throughout the country, with the goal to optimize drinking water treatment. Every year since the completion of the rigorous Phase III Self-Assessment in 2008, the WMWA has been awarded the Directors Award for meeting the water quality goals established by the Partnership program. In 2014, the WMWA was one of only 14 utilities in the country to receive the "Presidents Award" for achieving the highest possible level of individual filter turbidity performance and this prestigious award has been received each year since.

Drinking Water Standards and Quality Assurance

Under federal and state laws and regulations including the Safe Drinking Water Act (SDWA), lists of contaminants and their allowable levels in drinking water supplies have been developed along with treatments that water systems must use to remove these substances. These limits are very stringent and are designed to protect the public from known adverse health effects. Samples are collected and tested to monitor the treatment processes, and to monitor water characteristics throughout the distribution system. The WMWA operates an in-house PaDEP accredited laboratory for tests which are conducted frequently. Laboratory and field technicians collect and analyze samples in accordance with quality assurance and quality control requirements. Tests which are conducted less frequently are analyzed by commercial accredited laboratories.

This report conforms to the SDWA requirement that water suppliers provide detailed water quality information to their customers including regulated contaminants detected in the water. The WMWA is proud to report that the water supplied meets all established water quality standards.

Water Supply Sources and Treatment

The primary source of supply is surface water from the Mosquito Creek and Hagermans Run watersheds near Williamsport. Most of the land in the watersheds is owned by the WMWA. The WMWA practices a proactive watershed protection program including management of land uses, patrolling the watershed, and continually monitoring for water quality. Adjacent public and private land owners are encouraged to use best management practices to help protect the source water quality.

The WMWA also maintains a treatment and pumping facility for nine wells at the Lycoming Creek wellfield near the West Branch of the Susquehanna River. When used, the groundwater is blended with the surface water supplies by means of a water transmission line to the water treatment plant, where it undergoes full conventional filtration and treatment.

A modern water treatment plant treats the water from the watersheds and groundwater supplies. The treatment includes filtration, chemical treatment for corrosion control, fluoridation, and disinfection. This facility was designed to serve the greater Williamsport Area for years to come. The water from the groundwater supply is treated by packed tower aeration prior to treatment at the water treatment plant.

Source Water Assessment

A Source Water Assessment of the WMWA surface and groundwater water supplies was completed by the Pennsylvania Department of Environmental Protection (PaDEP). The Assessment was required as part of the Pennsylvania Source Water Assessment and Protection Program and was designed to identify and prioritize potential sources of pollution that could contaminate the raw water supplies of public water systems. The PaDEP Assessment found that the WMWA surface water supplies have little potential risk of significant contamination and were judged overall as well-protected. The highest ranked potential sources of contamination were listed as a nearby quarry and a highway. The WMWA wellfield, which is located in a more developed area, was judged to have a higher risk of potential contamination. The highest ranked potential sources of contamination were listed as nearby industrial contamination and two major highways. The possible risk is reduced because the groundwater undergoes remediation and treatment for organic contamination, and the finished water does not contain detectable levels of the organic contaminants. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4531. Complete reports were distributed to municipalities, water supplier, local planning agencies, and PaDEP offices. Copies of the complete report are available for review at the PaDEP Northcentral Regional Office, Records Management Unit at (570) 327-3490.

Source Water Protection Plan

The WMWA has developed a Source Water Protection Plan in a proactive effort to help protect the WMWA raw water sources. Through the plan, the WMWA partners with PaDEP, state agencies, local municipal officials, Lycoming County, colleges, watershed associations, and landowners to promote awareness of water quality and quantity issues which may impact the WMWA surface and ground water sources. The WMWA also participates in the North Central Source Water Protection Alliance to coordinate regional efforts to protect public water supplies and conduct monitoring of source waters. In partnership with the U.S. Geological Survey (USGS), a baseline water quality assessment of surface water and groundwater in the Lycoming Creek watershed was conducted and monitoring of the source waters is ongoing.

2021 Water Quality Monitoring

The tables below show the results of the required monitoring for the period of January 1 to December 31, 2021. The tables list only drinking water contaminants that were detected during 2021 or in the last round of sampling. The State requires monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample results are included, along with the year in which the sample was taken. There were no MCL violations during 2021.

Regulated Contaminants - At the Treatment Plant	MCL	MCLG	Amount Detected	Range (Low-High)	Units	Year Sampled	Violation	Typical Source
Total Organic Carbon (TOC)	TT [1]	NA	1.10 [2]	0.801-1.38	ppm	2021	No	Naturally present in the environment
Turbidity	TT [3]	NA	0.116	0.027-0.116	NTU	2021	No	Soil runoff

Regulated Contaminants - Water Leaving the Treatment Plant	MCL	MCLG	Amount Detected	Range (Low-High)	Units	Year Sampled	Violation	Typical Source
Barium	2	2	0.0249	0.0155-0.0343	ppm	2021	No	Erosion of natural deposits
Fluoride	2	2	0.72	0.53-0.81	ppm	2021	No	Water additive which promotes strong teeth
Nitrate	10	10	0.3	ND-0.60	ppm	2021	No	Runoff from fertilizer use; Erosion of natural deposits

Disinfection - Water Leaving the Treatment Plant	MinRDL Required	Minimum Detected	Minimum Range (Low-High)	Units	Year Sampled	Violation	Typical Source
Free Chlorine Residual	0.20	1.206	1.206-1.433	ppm	2021	No	Water additive used to control microbes

Regulated Contaminants - Multiple Tap Locations	MCL	MCLG	Amount Detected	Range (Low-High)	Units	Year Sampled	Violation	Typical Source
Haloacetic Acids (Five)	60 [4]	NA	20.3	10.2-27.0	ppb	2021	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHMs)	80 [4]	NA	45.8	10.0-53.3	ppb	2021	No	By-product of drinking water chlorination
Free Chlorine Residual	MRDL=4 [5]	MRDLG=4	1.02	0.89-1.14	ppm	2021	No	Water additive used to control microbes

Regulated Contaminants - Multiple Tap Locations	Action Level	MCLG	90th Percentile Value	# above Action Level	Units	Year Sampled	Violation	Typical Source
Copper	1.3	1.3	0.0377	0 out of 30	ppm	2019	No	Corrosion of household plumbing systems
Lead	15	0	3.6	1 out of 30	ppb	2019	No	Corrosion of household plumbing systems

[1] Both raw water and treated water samples are analyzed for TOC. For each month during 2021, both the raw water and the treated water TOC levels were less than 2.0 mg/L, so no minimum TOC removal is required.

[2] Compliance is based on the running annual average, computed quarterly. The Amount Detected is the highest result of the quarterly calculations during 2021.

[3] Turbidity is a measure of the cloudiness of the water and it is required to be continuously monitored because it is a good indicator of the effectiveness of the water filtration system. All turbidity measurements must be less than 1 NTU and 95% of all measurements must be less than or equal to 0.3 NTU. During 2021, 100% of all the turbidity results were less than 0.3 NTU.

[4] Compliance is based on the locational running annual average, computed quarterly. The Amount Detected is the highest locational running annual average of eight sample locations during 2021.

[5] Compliance is based on the running annual average of the monthly averages, computed quarterly. The Amount Detected is the highest result of the quarterly calculations during 2021. The Range is the lowest and the highest monthly average during 2021.

Terms and Abbreviations

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

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.

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.

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.

MRDL (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 the control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

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

NA: Not Applicable

ND: Not Detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity of water.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter, μg/L).

ppm (parts per million): One part substance per million parts water (or milligrams per liter, mg/L).

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

Additional Water Quality Monitoring

In 2021, in addition to the water quality results shown in the above tables, samples were analyzed for the following parameters with no detects found:

- nitrite, arsenic, free cyanide, mercury, antimony, beryllium, cadmium, selenium, chromium, nickel, and thallium
- 21 volatile organic compounds (VOCs)
- Total Coliforms and E. coli in the distribution system (no PaDEP Level 1 or Level 2 Assessments were required)

In 2017, samples were analyzed for Cryptosporidium in the source water with no detects found. The PaDEP issued a waiver to the WMWA for dioxin and PCB testing through 2022 and for asbestos testing through 2028 because the sources are not susceptible to this type of contamination.

In 2020, samples were analyzed for 28 synthetic organic chemicals (SOCs) and combined uranium with no detects.

Unregulated Contaminant Monitoring Regulation

The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2020, the WMWA was required to monitor for the Cyanotoxins which are on the EPA Unregulated Contaminant (UCMR4) Assessment Monitoring List 1 with no detects found.

Contamination Potential

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 may 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm 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, U.S. EPA and PaDEP prescribe regulations which limit the amount of certain contaminates in water provided by public water systems. U.S. Food and Drug Administration (FDA) and PaDEP 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 Safe Drinking Water Hotline at (800) 426-4791.

Special Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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.

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. The Williamsport Municipal Water 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 at (800) 426-4791 or at http://www.epa.gov/safewater/lead.

The WMWA Commitment to You

The Williamsport Municipal Water Authority (WMWA) is pleased to provide you with this Annual Drinking Water Report in accordance with U.S. Environmental Protection Agency (U.S. EPA) regulations, which summarizes the quality of drinking water from the treatment facilities during 2021. The Board of Directors and employees are proud to serve and provide you with a high quality, dependable supply of drinking water in a cost-effective manner. This report includes information about the source of your drinking water, how the water is treated, and how the water compares to state and federal regulated contaminant standards.

Public Meetings and Board Members

The regularly scheduled meeting of the WMWA Board of Directors is held at noon on the fourth Wednesday from January through October and on the third Wednesday in November and December in the conference room at 253 West Fourth Street, Williamsport, PA. The public is welcome and encouraged to attend any of these meetings, call 570-323-6148 to confirm the meeting location.

The Board Officers and Members are:
Andrée P. Phillips, Chair
William G. Ertel, Vice Chair
Thomas J. Marnon, Treasurer
Johnny R. Meyer, Secretary
Gregory A. Zeitler, Assistant Secretary
Dr. Kent C. Trachte, Assistant Treasurer
Laura L. Templeton
Richard M. Trowbridge

For More Information

If you need additional information about the quality of your drinking water or have questions about this report, please contact Wendy J. Walter, Director of Compliance, Safety, and Security, at (570) 323-6148 or by mail at 253 West Fourth Street, Williamsport, PA 17701 or you may visit the website online at www.wmwa-wsa.org.