

Williamsport Municipal Water Authority

2013

Water Quality Report



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Williamsport, PA 17701
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Office Hours: 8:00 – 4:30 pm

PWS ID # 4410173

www.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.

March 2014

Partnership for Safe Water

The Partnership for Safe Water is a voluntary effort between the U.S. EPA, the 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.



Water Quality Monitoring

In 2013, in addition to the water quality results shown on the attached tables, 720 routine samples from the distribution system were tested for coliform bacteria and none of the samples were positive.

In 2013, samples were analyzed for 11 inorganic compounds (IOCs) including nitrite, arsenic, chromium, and mercury, and no detects were found.

In 2011, quarterly samples were collected for 27 required Synthetic Organic Chemicals (SOCs) and there were no detects. Two samples were analyzed in 2011 for Gross Alpha/Beta and Combined Uranium and there were no detects.

In 2010, quarterly testing was completed for the 10 U.S. EPA unregulated contaminants (UCMR) and no detects were found. In 2009, 6 raw water samples were collected and analyzed for the microscopic organisms *Giardia* and *Cryptosporidium* and none of the samples were positive for the parasites.

The PaDEP issued a waiver for asbestos testing through 2019 and a waiver for dioxin and PCB testing through 2013 because the sources are not susceptible to this type of contamination.

The WMWA is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the fourth quarter of 2012, we did not complete all monitoring or testing for the regulated volatile organic compounds (VOCs) and therefore cannot be sure of the quality of your drinking water during that time. The sample was collected soon after the notification was received in the first quarter of 2013 and quarterly sampling was conducted in 2013. There were no detectable results in any of the samples. There is no action required by WMWA customers and there were no associated health risks. The regulated VOCs include: benzene, chlorobenzene, toluene, carbon tetrachloride, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dichloropropane, ethylbenzene, methylene chloride, styrene, tetrachloroethene, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, 1,1,1-trichloroethane, vinyl chloride, trichloroethene, and total xylenes. The WMWA is in compliance with the VOC monitoring and reporting requirements.

Water Supply Sources

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 the mixture undergoes full conventional filtration and treatment.

Water 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

The Pennsylvania Department of Environmental Protection (PaDEP) completed a source water assessment of the WMWA surface and groundwater water supplies in 2003. 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 is located in a more developed area and 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 copy of the 2003 Source Water Assessment Summary is available by writing to PaDEP, Northcentral Regional Office, 208 W. Third Street, Suite 101, Williamsport, PA 17701- 6448 or for more information visit the PaDEP website at www.dep.state.pa.us (keyword "source water").



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. We participate with the North Central Source Water Protection Alliance to coordinate regional efforts to protect public water supplies and conduct monitoring of our source waters including those with a potential to be affected by Marcellus shale gas development activities. 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 ongoing monitoring of our source waters is continuing.

2013 WATER QUALITY MONITORING

The tables below show the results of the required monitoring for the period of January 1 to December 31, 2013. The tables list only drinking water contaminants that were detected during 2013 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 2013.

Substance (Unit of Measurement)	Year Sampled	MCL	MCLG	Amount Detected	Range (Low-High)	Violation	Typical Source
Barium (ppm)	2013	2	2	0.0336	NA ¹	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine-Distribution System (ppm) [Free Chlorine Residual]	2013	MRDL=4 ³	MRDLG=4	1.04	0.83-1.19	No	Water additive used to control microbes
Combined Radium (pCi/L)	2011	5	0	0.615	ND-1.23	No	Erosion of natural deposits
Fluoride (ppm)	2013	2	2	0.90	0.61-0.97	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (HAA) [Five] (ppb)	2013	60 ³	NA	16.0 ⁴	6.5-19.3	No	By-product of drinking water disinfection
Nitrate (ppm)	2013	10	10	0.498	NA ¹	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TOC-Raw Water [Total Organic Carbon] (ppm)	2013	TT ²	NA	1.1 ³	ND-2.0	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2013	80 ³	NA	44.3 ⁴	14.9-60.8	No	By-product of drinking water chlorination
Turbidity (NTU)	2013	TT ⁵	NA	0.09	0.01-0.09	No	Soil runoff
Entry-Point Disinfectant Residual (Unit)	Year Sampled	MinRDL Required	Minimum Detected	Minimum Range (Low-High)		Violation	Typical Source
Chlorine-Entry Point (ppm) [Free Chlorine Residual]	2013	0.4	1.15	1.15-1.53		No	Water additive used to control microbes
Tap Water Samples Collected in 30 Homes: Substance (Unit of Measurement)	Year Sampled	AL	MCLG	Amount Detected 90th Percentile	# of Homes Above AL	Violation	Typical Source
Copper (ppm)	2013	1.3	1.3	0.044	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2013	15	0	ND (<2)	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
<p>¹ No range is reported because only one sample is required.</p> <p>² The raw water TOC level is not greater than 2.0 mg/L; therefore, no TOC removal is required.</p> <p>³ Compliance is based on the running annual average, computed quarterly.</p> <p>⁴ The highest running annual average of eight sample locations, computed quarterly.</p> <p>⁵ Turbidity is a measure of the cloudiness of the water and it is required to be monitored because it is a good indicator of the effectiveness of the water filtration system. The rule requires that 95% of all measurements taken must be less than or equal to 0.3 NTU and no measurement may be greater than 1 NTU. During 2013, 100% of all the samples taken to measure turbidity met these water quality standards.</p>							

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.

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.

pCi/L (Picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

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 shares a laboratory with the Williamsport Sanitary Authority along with a staff that includes laboratory and compliance supervisors plus laboratory and field technicians. Established laboratory quality assurance and quality control standards are followed and the laboratory is PaDEP accredited for the analyses performed. For samples that are analyzed less frequently, testing is contracted to other 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.



Contamination Potential

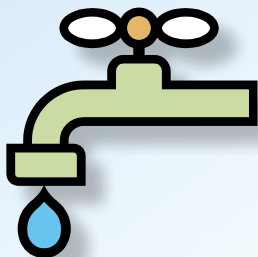
Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up 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, the U.S. EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 WMWA 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 2013. The Board of Directors and employees are proud to serve you, with a constant goal of providing 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 on the fourth Wednesday of each month at noon in the conference room at 253 West Fourth Street, Williamsport, PA. The public is welcome and encouraged to attend any of these meetings. The current Board Officers and Members are:

William E. Nichols, Chairman
William G. Ertel, Vice Chairman
Eiderson A. Dean, Secretary
Thomas J. Marnon, Treasurer
Matthew G. Rebeck, Asst. Secretary/Treasurer
George E. Bierman
Steven W. Cappelli
Thomas A. Frazier
Johnny R. Meyer
Marshall D. Welch

For More Information

If you need additional information about the quality of your drinking water or have questions about this report, please contact Mrs. Wendy J. Walter, Compliance Manager, 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.