

WATER QUALITY REPORT

Calendar Year 2024
Public Water System ID #4550022
SHAMOKIN DAM BOROUGH
42 W 8th Avenue – PO Box 273
Shamokin Dam, Pa 17876



April 2025

Dear Water Customer;

The U.S. Environmental Protection Agency (EPA) mandates that all public water systems inform their customers annually about the quality of the drinking water supplied to them and provide a description of the public water system. *This report contains vital information about your drinking water. Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.*

The following report is to satisfy this EPA mandate as well as to inform you about the Borough's public water system. Much of the information is like previous years' reports.

Owner Statement

The Shamokin Dam Borough owns and operates the water treatment plant and distribution system. If you have any questions about this report or concerning your water utility, please contact Ed Hovenstine at 570-743-7565. We want you to be informed about your water supply. If you want to learn more, please attend any of the regularly scheduled Borough Council meetings. Our meeting nights are available at the Borough office or on our website at www.shamokindam.net. The Borough employs two certified water treatment operators and one water distribution specialist, who report to the Borough Manager who then ensures that the required water quality standards are met.

Safe Water Statement

I am pleased to report that in 2024 your drinking water met all EPA and Pennsylvania Department of Environmental Protection (PA DEP) regulations, and health standards. The Shamokin Dam Borough closely monitors its water supply by taking hundreds of required water tests per year. However, we did have one monitoring violation to report in 2024. which is explained as follows:

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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

FAILURE TO MONITOR:

Our water system rarely violates any drinking water standards over the course of a year. Even though the following was not an emergency, as our customer, you have a right to know what happened and what we did to correct the situation. Monitoring requirements were not met for the following possible contaminant:

Radionuclides, specifically Gross Alpha, Radium-226, Radium-228 and Total Uranium.

- Frequency of the test – *one time, every (9) years.*
- When the sample should have been taken – *Any time during the calendar year 2024.*
- Where the sample should have been taken – *At our entry point (main reservoir).*

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During 2024 we failed to monitor for the radionuclides, as noted above, and therefore cannot be sure of the quality of our drinking water for that contaminant during that time.

The explanation in the paragraph above fulfills the DEP Tier 3 violation requirement for public notification.

We decided to follow up and still do the testing in 2025, even though it was going to be late. The subsequent sample was taken from the entry point (main reservoir) and submitted to the lab for testing on February 6th, 2025. All of the results were less than the detectable level. Some notable history on the previous testing results for radionuclides that were done, first in 2006, and again in 2015 were also below any detectable levels.

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.

What should you do as a customer?

There is nothing you need to do currently or in the future.

Source Water Information

The Boroughs' water source is the Susquehanna River (DEP Source ID 001) in Snyder County, which is classified as a 'surface type' water supply. Raw (untreated) river water flows by gravity from our intake, located in the Susquehanna River just below the Veteran's Memorial Bridge, to our treatment plant. Surface type waters, like any source of water, can be susceptible to contamination. If any contamination occurs, public notification may be necessary depending on the severity and the type of contamination involved. PA DEP closely monitors daily river conditions and promptly reports any problems which may occur in the river.

Source Water Assessment Statement

A Source Water Protection Assessment of the Susquehanna River, in our watershed area, was completed in 2017 by DEP in conjunction with Spotts, Stevens and McCoy – Engineers and Environmental Consultants. A copy of the Source Water Protection Plan is on file in our office. [The plan was updated on March 12, 2025.](#) The latest update of the assessment has found that our intake is potentially susceptible to agriculture and transportation corridors. Overall, the watershed is not at a substantial risk for contamination of your drinking water. A summary report of the assessment is available on the Source Water Assessment Summary Reports eLibrary web page: [Source Water Assessment Folder](#). Any specific questions that you as a consumer may have concerning river conditions can be directed to our regional PA DEP office by calling (570) 327-3636 or see the source water assessment link <http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4545>.

Contaminant Precautions

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, persons with HIV/AIDS, those with immune system disorders, and some of the elderly population. Infants can be particularly at risk for 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 again from the Safe Drinking Water Hotline (800-426-4791).

Educational Information on Contaminants in Drinking Water

Drinking water, including bottled water, may be expected to contain at least tiny amounts of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. The EPA has established drinking water MCL's (maximum contaminant level) for several contaminants. MCL's are the maximum level of a contaminant that can be present in the water and be considered safe. If an MCL is exceeded the public water system must notify the public of the contaminant that is present in the water, and the probable source of the contaminant.

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 and 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 human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, which include salts and metals, are a result of naturally occurring conditions such as urban runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals are by-products of industrial processes and petroleum production; they can also come from fueling stations, urban storm water runoff, and septic systems.
- Radioactive type contaminants, which may be naturally occurring, or the result of oil and gas production and mining activities, may also be present in drinking water.

In order to ensure that tap water is safe to drink, EPA & DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) & DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may be expected to contain at least some insignificant amounts of 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* at (800-426-4791).

Information about Lead in Drinking Water

Lead in drinking water can cause serious health problems, especially for pregnant women and young children. The lead in individual residences drinking water is primarily from materials and components associated with service lines and home plumbing. The Shamokin Dam Borough is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If for any reason you are concerned about lead in your water, you may choose to have your water independently 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>.

Lead Service Line Inventory Identification

In 2024 all public water system were required (by a DEP mandate) to submit an inventory of lead service water line connections, from the main, and within individual homes and businesses, to the meter, throughout our entire system. We have inspected all the commercial (business) connections and found no lead connections. We are in the process of inspecting all residential connections. are continuing to conduct individual home inspections, this is a much longer process since we have to schedule the inspection with each individual homeowner. We do not anticipate finding any lead connections since our system is relatively new by national averages, and the older areas do not have lead connections at main. But we do have to physically verify each connection.

Treating Our Water

Raw (untreated) river water flows by gravity from our intake, located in the Susquehanna River just below the Veteran's Memorial Bridge, to our raw water pumping station located at the north end of the Fabri-Dam Park. The untreated river water is then pumped from the raw water pumping station to our water treatment plant located next to Fiss Run on the west side of Helen Street.

The treatment plant purification process consists of oxidation, flocculation, sedimentation, filtration, and disinfection.

As the raw river water passes through the treatment plant combinations of carbon, potassium permanganate, aluminum sulfate, polyaluminium chloride, and hydrated lime are added to the untreated river water prior to the flocculation chamber.

The following is a summary of how each chemical works to improve water quality. Carbon improves the taste and odor of the water and acts as a coagulant aid. Potassium permanganate oxidizes out the soluble iron and manganese present in the river water. Aluminum sulfate, polyaluminium chloride, and lime form a coagulant (a sticky particle) that the turbidity (dirt) in the raw water will attach to and in return the coagulants will help to separate the dirt particles in the flocculation/sedimentation chamber. Once flocculation and sedimentation have occurred, the clearer water is decanted from the top of the sedimentation basin (up-flow Clarifier), chlorinated, and filtered through a mixed media filter. Chemicals added post filtration include fluoride which promotes strong teeth, and Shan-No-Corr (a zinc metaphosphate used for corrosion control which aids in controlling lead and copper levels in the distribution system). Both are added at this point to the filtered water. Finally, the water is disinfected with sodium hypochlorite prior to pumping, the now, potable water approximately 1.5 miles, and an elevation change of 330 feet, to a four (4)-compartment 1,000,000-gallon concrete enclosed reservoir. The reservoir is located above the current Nissan dealership site on the north side of Sunbury Road.

Average Daily Water Usage & Conservation

The Borough's daily accountable water usage, through metering (customer use), the water processing operations and system leakage was calculated at 227,673 gallons per day in 2024. Under normal river conditions the treatment plant can process 700,000 gallons per day (per our water allocation permit).

Conclusion

The Shamokin Dam Borough strives to provide the maximum level of quality of water to our customers at an affordable price. We ask that anyone observing non-authorized use of water, such as fire hydrants being operated by unauthorized personnel, or if you notice water running down the street where it normally does not run, which could indicate a break in a water main or service line, immediately contact the Borough office or Snyder County Emergency.

Please take a moment to review the attached **2024** testing results and definitions for our system.

If you have any questions regarding this report or would like to tour the Borough water treatment facilities, please contact me at the Borough Office (**570-743-7565**), stop by the Borough office, or you can attend one of our monthly Borough Council meetings, which are held the first Monday of each month beginning at 7:00 PM in the Borough Council Chambers.

Sincerely,



Edward J. Hövenstine
Borough Manager

Shamokin Dam Borough - Detected Sample Results - 2024

Chemical Contaminants - See Health Effects on Page 7 & 8

Contaminant	MCL	MCLG	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant
Barium (IOC) (ppm)	2	2	0.03	0.03	No	Discharges of drilling wastes, metal refineries and erosion of natural deposits
Fluoride (IOC) (ppm)	2	2	0.77	0.67-0.34	No	Water additive, promotes strong teeth.
Nitrate (ppm)	10	10	0.67	0.67	No	Runoff from fertilizer use
Trihalomethanes (ppb) (See Note #1 below)	80	80	44.6	14.1-96.7	No	Chlorine Byproduct
Haloacetic Acids (ppb) (See Note #1 below)	60	60	40.7	15.9-104.8	No	Chlorine Byproduct
Combined Filter Effluent Turbidity (NTU) (See notes #2 & #3 below)	TT	0	0.04	0.01-0.21	No	Soil run-off
Total Organic Carbons (TOC's) (See Note #4 Below)	(Raw) >2.0 to 4.0	0	Raw = 1.2 Fin. = <1.0	N/A	No	Naturally present in the environment.

Contaminant	MDR	MinRDL	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant
Sodium Hypochlorite (ppm) Entry Point (See Note #5 below)	4	0.20	1.38	0.75-2.49	No	Water additive used to control microbes.
Sodium Hypochlorite (ppm) System	4	0.20	0.93	0.72-1.21	No	Water additive used to control microbes.

Notes:

#1. TTHM & HAA5 Testing Results - Testing is done quarterly and compliance is based on a Running Annual Average (RAA). A result that exceeds the MCL does not automatically constitute a violation.

#2. TT - Treatment Technique = 1.0 NTU for a single measurement.

#3. TT - Treatment Technique = For compliance, at least 95% of monthly samples less than of equal to 0.3 NTU.

#4. Total Organic Carbon (TOC) - In 2024 DEP required the Borough to monitor TOC removal on a quarterly basis. Readings are based on ppm of both the raw & finished water in combination with the raw water Alkalinity. A copy of each quarters removal data is on file in our office. All readings were well within the safe reporting limits.

#5. MinRDL - The Borough must maintain a 0.20 ppm disinfection residual at the entry point (reservoir), at all times. A violation would occur if the Borough failed to maintain a 0.20 for more than 4 consecutive hours.

Chemical Contaminants Cont'd - See Health Effects on Pages 7 & 8

Lead & Copper

Contaminant	MCL	Result Range	Sample Date	Latest Sample Period Start Date	Latest Sample Period End Date	90th Percentile Result	Action Level	90% Action Level Exceeded
Copper (ppb)	N/A	5.3 - 68.6	8/8/2022	6/1/2022	9/30/2022	53.4	1300	No
Lead (ppb)	N/A	0.00 - 1.4	8/8/2022	6/1/2022	9/30/2022	1.4	15	No

* No Lead or Copper sample in the twelve that were tested exceeded the action level.

Microbial Contaminants

Contaminant	MCL	TT	MCLG	Positive Samples	Violation Yes/No	Likely Source of Contaminant
Total Coliform / Bacteria	0	N/A	0	0	No	Human and animal fecal waste
E. coli	N/A	N/A	N/A	0	No	Human and animal fecal waste

Other Reportable Detects

N/A FOR 2023

In 2024 PA DEP required the Borough to test for a series of additional Organic Chemicals.

20 Regulated Volatile Organic Compounds (VOC's). The testing was done one time, in the first quarter of 2024. **VOC's** pose certain health risks, from cancer, liver / kidney, reproductive and stomach to nervous & immune system effects. Likely sources are discharges from industrial, chemical and petroleum factories and metal degreasing sites, leaching from gas storage tanks and landfills, and various other industrial activities. A complete list of the required **VOC's** that were tested, and results (0.0), are available at the Borough office. **VOC** levels are measured in mg/l's (ppm). The level of detection for each individual test was well below the minimum allowed and in most cases, less than the reportable limit as required by the EPA.

12 Regulated Inorganic Compounds (IOC's). This testing was done one time, in August of 2024. **IOC's** pose certain health risks, from increased blood pressure, sugar and cholesterol, liver and kidney damage. Likely sources are discharges from petroleum refineries, fire retardants, erosion from natural deposits and industrial type discharges. A complete list of the required **IOC's**, and the results, that were tested is available at the Borough Office. **IOC** levels are measured in mg/l's(ppm). There was very minimal, and most cases no detection for all that were tested.

PFOA / PFOS. This testing was done one time in each quarter of 2024 from the entry point to the sytem (main reservoir). **PFOA/PFOS** pose adverse health effects as described on page 8. All of the test results were Non-detect ND. The next scheduled testing for each of these contaminants will be in 2026.

Definitions

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

Maximum Contaminant Level (MCL): Indicates the highest level of a contaminant that is allowed in drinking water. **MCL's** are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): Indicates the level of a contaminant in drinking water below which there is no known or expected risk to health. **MCLG's** 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 Disinfection (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 had 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 *E. coli* MCL violation has occurred and/or why total coliform have been found in our water system on multiple occasions.

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

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 (ug/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 (ng/L).

ND = non-detect (indicates that the constituent is not present).

Chemical Contaminant & Health Effects

Contaminant	Health Effects
Barium (IOC)	Some people that drink water containing barium in excess of the MCL, over an extended period of time, could experience an increase in their blood pressure.
Fluoride (IOC)	Some people that drink water containing Fluoride in excess of the MCL over an extended period of time, could develop bone disease, including pain and tenderness. Children may develop mottled teeth.
Nitrate (IOC)	Some infants that consume Nitrate in drinking water in excess of the MCL could experience Methemoglobinemia (blue baby syndrome).
Uranium	Uranium in drinking water that is in excess of the MCL could increase a persons risk of cancer.
Trihalomethanes / Haloacetic Acids	Some people that drink water containing these contaminants in excess of the MCL, over an extended period of time, may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Combined Filter Effluent (Turbidity)	Turbidity has no direct health effect in drinking water. Turbidity can interfere with the disinfection, which can provide a medium for microbial growth. Turbidity may also indicate the presence of disease causing organisms.

Chemical Contaminant & Health Effects - Cont'd	
Contaminant	Health Effects
Sodium Hypochlorite Entry Point	<i>When a disinfectant such as Sodium Hypochlorite or Chlorine is consumed in excess of the maximum residual disinfectant level, some people could experience irritating effects to their eyes and nose, and some could experience stomach discomfort.</i>
Copper (ppb)	Copper is an essential nutrient, but some people that drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink copper in excess of the action level, over many years, could suffer liver or kidney damage.
Lead (ppb)	See information about lead in drinking water on page (2) of this report.
Total Coliform Bacteria	Coliforms are bacteria are used as an indicator that other potentially-harmful, bacteria may be presentor that a potential pathway exists through which contamination may enter the drinking water distribution system.
Perfluorooctanoic (PFOA)	Drinking water containing PFOA in excess of the MCL of 14 ng/L may cause adverse health effects, including developmental effects (nonbehavioral and skeletal effects).
Perfluorooctanesulfonic acid (PFOS)	Drinking water containing PFOS in excess of the MCL of 18 ng/L may cause adverse health effects, including decreased immune response.