

WATER QUALITY REPORT

Calendar Year 2016

PWSID #4550022

SHAMOKIN DAM BOROUGH

42 W 8th Avenue - PO Box 273

Shamokin Dam, Pa 17876



March, 2017

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 important 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 similar to previous years' reports.

SAFE WATER STATEMENT

In **2016** your potable water met all EPA and Pennsylvania Department of Environmental Protection (PA DEP) regulations and health standards. In regards to the DEP violation noted in the 2015 report, the entire issue was dismissed in 2016, by DEP, with no penalties. The violation involved the water filters being continuously being monitored (which they were at all times) and recorded through our instrumentation (which was also being done per regulatory rules), but the data was not being taken from the instrument and filed in *exact* accordance with DEP regulations. The filing process has been addressed and corrected.

SOURCE WATER INFORMATION

The Boroughs' water source is the Susquehanna River, which is classified as a 'surface type' water supply. Surface type waters, like any source water, can be susceptible to contamination. If contamination occurs, public notification may be necessary depending on the severity and the type of contaminate(s). PA DEP closely monitors daily river conditions, and promptly reports any problems which may occur in the river. Questions that you as a consumer may have concerning river conditions can be directed to our local PA DEP office by calling (570) 988-5500. A copy of the Source Water Evaluation is on file in our office.

CONTAMINANTS IN YOUR DRINKING WATER

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. The EPA has established drinking water MCL's (maximum contaminant level) for a number of 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. Water can also pick up substances resulting from the presence of animal or human activity. 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 can 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 prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Hotline @ (800-426-4791).

Information about Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. The Borough is required to test for Lead (& Copper) every three (3) years, and 2016 was a year that we did the testing within the system and the results were minimal or no detect. Lead in individual residences drinking water is primarily from materials and components associated with service lines and home plumbing. Shamokin Dam Borough is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components within homes. When your water has been sitting within your home plumbing system 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>

CONTAMINANT PRECAUTIONS

It should be noted that some people may be more vulnerable to contaminants in drinking water than the general population. Water that is not properly filtered and treated could cause serious illness in immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS, those with immune system disorders, some elderly. Infants can be particularly at risk for infections. These people should consult with their health care providers regarding special precautions that maybe appropriate given their condition. EPA/ Centers for Disease Control (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).

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.

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 dirt in the water attaches to and settles out in the flocculation/sedimentation chamber. Once flocculation and sedimentation has occurred, the clear

water is decanted off the top of the sedimentation basin (up-flow Clarifier), chlorinated and filtered through a mixed media filter. After filtration, a small dose of fluoride is then added, we also add Shan-No-Corr (a zinc metaphosphate used for corrosion control which aids in controlling lead and copper levels in the distribution system) 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 K-Mart site on the north side of Sunbury Road.

AVERAGE DAILY WATER USAGE

The Borough currently consumes, through metering and water processing operations, approximately 140,000 gallons of potable water per day. Under normal river conditions the treatment plant can process 1,100,000 gallons per day and under very turbid river conditions 625,000 gallons per day (very turbid river conditions are when the river is mixed with runoff from farm fields and tributary sediment.)

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 doesn't 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 **2016** testing results 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. Hovenstine

Edward J. Hovenstine
Borough Manager

SHAMOKIN DAM BOROUGH – DEFINITIONS

Attached is a list of the contaminants found in Shamokin Dam's drinking water during the last three (3) years. In addition, to help you understand the abbreviations and terms used, I've provided the following definitions:

- **Public Water System Identification Number (PWSID#):** The individual identification number given to public water systems.
- **Maximum Contaminant Level Goal (MCLG):** is 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 Contaminant Level (MCL):** is 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.
- **Minimum Disinfectant Residual (MDR):** is the minimum level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Lowest Level Detected (LLD):** is the lowest disinfection value allowed to ensure control of microbial contamination.
- **Action Level (AL):** is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT):** A required process intended to reduce the level of contaminant in drinking water.
- **(n/a)** - not applicable
- **(ppm) or (mg/L)** – Parts per million or milligrams per liter – One ounce to 7,812.5 gallons.
- **(ppb) or (ug/L)** - Parts Per Billion or Micrograms per Liter – one (1) ounce to 7,812,500 gallons.
- **(pCi/l)** – Picocuries/Liter – A unit of concentration for radioactive contaminants.
- **(ND)** - Non-Detects – Laboratory analysis indicates that the constituent is not present.
- **(CFU)** – Coliform Count on Membrane Filter per 100ML.
- **(NTU)** – Nephelometric Turbidity Unit is a measure of the clarity of the water. Turbidity in excess of three (3) NTU is just noticeable to the average person.
- **Flocculation** – In water treatment is the slow stirring or mixing of the raw water after chemical addition to assist in the formation of a flocculent mass that will settle out in the sedimentation basin.