



2016 Water Quality Report Perkiomen Township, PWSID # PA1460069

*Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo ó hable con alguien que lo entienda bien.*

About Your Drinking Water

Aqua Pennsylvania, Inc. (Aqua) is pleased to provide you with important information about your drinking water in this 2016 Consumer Confidence Report for the Perkiomen Township Division (public water supply ID-PA1460069). The report summarizes the quality of water Aqua Pennsylvania provided in 2016 including details about water sources, what the water at your tap contains, and how it compares to standards set by regulatory agencies. We are pleased to report that we were in compliance with all water quality regulations in 2016. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported. This report is only a summary of our testing during 2016. If you have any questions about the information in this report, please call 610.645.4248 or visit our website at AquaAmerica.com.

Sources of Supply

Water for the Perkiomen Township Division comes from six wells. The Pennsylvania Department of Environmental Protection (DEP) has completed a source water assessment for the wells for this system. Information on source water assessments is available on the DEP website at www.depweb.state.pa.us (DEP keyword "source water"). Completed reports are distributed to municipalities, water suppliers, local planning agencies, and DEP offices. Copies of the reports will be available for review at the DEP Southeast Regional Office, Records Management Unit (phone 484.250.5900).

The sources of drinking water (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 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 result from urban storm 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, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. Radon is not regulated in drinking water. It is a radioactive gas that you cannot see, taste or smell. Most radon enters homes directly from underground. Radon can be released into the air from tap water. Generally, tap water is a small source of radon in indoor air.

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. FDA 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800.426.4791.

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, 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800.426.4791).

Our water systems are designed and operated to deliver water to our customers' plumbing systems that complies with state and federal drinking water standards. This water is disinfected using chlorine, but it is not necessarily sterile. Customers' plumbing, including treatment devices, might remove, introduce or increase contaminants in tap water. All customers, and in particular operators of facilities like hotels and institutions serving susceptible populations (like hospitals and nursing homes), should properly operate and maintain the plumbing systems in these facilities. You can obtain additional information from the EPA's Safe Drinking Water Hotline at 800.426.4791.

The following table lists contaminants that were detected in your water system. The table provides the average of the sources used to supply the Division as well as minimum and maximum observed levels of regulated contaminants. The state allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data below, though representative, are more than one year old.

Aqua Pennsylvania, Inc., Perkiomen Township Division, PWSID# PA1460069

| Contaminants | Average Detection | Range of Detections | MCL | MCLG | Sample Date | Violation Y/N | Major Sources in Drinking Water |
|--|-------------------|---------------------|----------|-----------|-------------|---------------|---|
| Total Coliform Bacteria | 0 | NA | 1 | 0 | 2016 | N | Naturally present in the environment |
| Values above are number positive samples each month. The MCL is 1 positive monthly sample. None of the 48 samples collected in 2016 was positive for Total Coliform Bacteria. | | | | | | | |
| Disinfectant Residual – Chlorine values below reflect results from routine monthly distribution sampling at multiple sites. | | | | | | | |
| Chlorine, ppm | 1.1 | 0.7 - 1.3 | MRDL = 4 | MRDLG = 4 | 2016 | N | Water additive used to control microbes |
| Inorganic Contaminants | | | | | | | |
| Arsenic, ppb | 5 | ND - 7 (a) | 10 | 0 | 2016 | N | Erosion of natural deposits |
| Barium, ppm | 0.18 | 0.11 - 0.43 | 2 | 2 | 2015 | N | Erosion of natural deposits |
| Chromium, ppb | 2.4 | ND - 3.3 | 100 | 100 | 2015 | N | Erosion of natural deposits |
| Fluoride, ppm | ND | ND - 0.2 | 2 | 2 | 2016 | N | Erosion of natural deposits; water additive to promote strong teeth |
| Nitrate, ppm | 2.5 | 1.6 - 3.7 | 10 | 10 | 2016 | N | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Selenium, ppb | 0.6 | ND - 2 | 50 | 50 | 2015 | N | Erosion of natural deposits |
| Radiological Contaminants | | | | | | | |
| Alpha emitters, pCi/L | 7.9 | 6.6 - 10.8 | 15 | 0 | 2012, 2015 | N | Erosion of natural deposits |
| Combined Radium, pCi/L | 0.19 | ND - 0.58 | 5 | 0 | 2012, 2015 | N | |
| Gross Beta, pCi/L | 1.98 | NA | 50 (b) | 0 | 2015 | N | Decay of natural and man-made deposits |
| Uranium, pCi/L | 3.1 | 2.9 - 3.4 | 20.1 | 0 | 2012 | N | Erosion of natural deposits |
| Disinfection Byproducts | | | | | | | |
| Haloacetic acids, ppb | 9 | 4 - 12 | 60 | NA | 2016 | N | Byproducts of drinking water disinfection |
| Total Trihalomethanes, ppb | 37 | 12 - 71 | 80 | NA | 2016 | N | |

- (a) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
- (b) The MCL for beta particles is 4 millirems per year (a measure of radiation absorbed by the body). EPA considers 50 pCi/L to be a level of concern for beta particles.

The result for one sample collected for radon during 2016 was 1,390 pCi/L.

| Contaminants | Entry Point # | Minimum Residual Level Required | Lowest Level Detected | Range of Detections | Sample Date | Violation Y/N | Major Sources in Drinking Water |
|---|---------------|---------------------------------|-----------------------|---------------------|-------------|---------------|---|
| Entry Point Disinfectant Residual – PA Ground Water Rule: This rule requires that no well station operate below specific minimum free chlorine levels for more than 4 hours. | | | | | | | |
| Chlorine, ppm | 101, 102, 104 | 0.4 | 0.01* | 0.01 – 3.1 | 2016 | N | Water additive used to control microbes |
| Chlorine, ppm | 103 | 0.54 | 0.03* | 0.03 – 2.9 | 2016 | N | |
| Chlorine, ppm | 105 | 0.80 | 0.21 | 0.21 – 2.89 | 2016 | N | |

*Disinfectant levels did not drop below minimum required level for more than 4 hours.

Lead and Copper Results

| Lead and Copper | 90th Percentile | Total Number of Samples | Samples Exceeding Action Level | Action Level | MCLG | Sample Date | Violation Y/N | Major Sources in Drinking Water |
|-----------------|-----------------|-------------------------|--------------------------------|--------------|------|-------------|---------------|---------------------------------|
| Copper, ppm | 0.43 | 21 | 0 | 1.3 | 1.3 | 2016 | N | Corrosion of household plumbing |
| Lead, ppb | ND | 21 | 1 | 15 | 0 | 2016 | N | |

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. Aqua 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 cold water 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>.

Notes:

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

Fluoride: Fluoride may help prevent tooth decay if administered properly to children, but can be harmful in excess. Customers in the Perkiomen Township Division receive water from unfluoridated supplies. For more information about fluoride in your tap water, call Aqua at 610.645.4248. This information may be helpful to you, your pediatrician or your dentist in determining whether fluoride supplements or treatment are appropriate.

Maximum Contaminant Level (MCL): 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.

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 contaminants.

NA: Not applicable.

ND: Not detected.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

pCi/L, pCiCuries/Liter: A unit of concentration for radioactive contaminants.

ppb: A unit of concentration equal to one part per billion.

ppm: A unit of concentration equal to one part per million.

PWSID: Public water supply identification number.

Turbidity: Monitored as a measure of treatment efficiency for removal of particles. Plant Performance Level: 0.3 NTU.

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