Annual Drinking Water Quality Report
Pennsville Township Water Department
For the Year 2021, Results from 2020
PWSID # NJ (1708001)

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

You can also refer to the EPA web-site at www.epa.gov/safewater/ccr1.html for any updates or for downloading the CCR guidance document. It should also be noted that New Jersey regulates some volatile organic compounds, which are not regulated at the federal level and certain volatile organic compounds at more stringent levels than at the federal level.

Our source is ground water pumped from 8 wells that draw their water from the upper and lower Raritan Aquifer over 150 feet deep. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for Pennsville Water, which is available at www.state.nj.us/dep/swap/ or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550. You may also contact Pennsville Township Water Department to obtain information regarding Pennsville's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is attached.

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact our Project Manager Thomas Gant at 856-678-7331. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Township Committee meetings at the Pennsville Township Municipal building located at 90 North Broadway. Meetings are held on the First and Third Thursday of each month at 6:30 p.m.

The Pennsville Township Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2020. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.
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 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 stormwater runoff, and septic systems.

- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, EPA prescribes regulations, which limit the number of certain contaminants in water provided by public water systems. 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 the 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 1-800-426-4791.

DEFINITIONS

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per trillion (ppt) or Nanograms per liter (nanograms/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.
Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Total Organic Carbon (TOC): We are required to remove a certain percentage of (TOC) from our drinking water monthly. Total Organic Carbon has no adverse health effects. However, TOC provides a medium for the formation of disinfection byproducts.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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 -The "Goal"(MCLG) is 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 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 contamination
Secondary Contaminant- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.
Recommended Upper Limit (RUL) – Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste, or appearance. RUL's are recommendations, not mandates.

EPA requires monitoring for over 80 drinking water contaminants. Those contaminants listed in the table are only contaminants detected in Pennsville Township's water. The state of New Jersey allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Individual Contaminants:						
Inorganic Contaminants:						
Nitrate (as Nitrogen) **Sampled 2/12/2020 3/112020**	N	Range: ND Highest level detected <1mg/L	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Lead **Sampled 4/29/2020 thru 5/18/2020**	N	**90th percentile 0 mg/L**	ppm	0	**Action Level** 0.015	Corrosion of household plumbing systems, erosion of natural deposits
Copper **Sampled 4/29/2020 thru 5/18/2020**	N	**90th percentile 0 mg/L**	ppm		1.3	Corrosion of household plumbing systems, erosion of natural deposits
Barium Sampled 6/3/2020 & 6/10/2020	N	TP005010 5.4 µg/L TP004006 22.4 µg/L TP003003 36.5 µg/L	ppm	2	2	Erosion of natural deposits
Fluoride Sampled 6/3/2020	N	TP005010 0.12 mg/L TP003003 0.71 mg/L	ppm	N/A	2	Pollution from agricultural fertilizers and combustion of coal
Secondaries:						
Sodium Sampled quarterly	Y	**TP005010** 20-26.8 mg/L **TP004006** 8-69 mg/L **TP003003** 27.8-87.8 mg/L	ppm	N/A	N/A	Discharge from industrial sources of roads by runoff, salt storage, or salt water intrusion. RUL=50 mg/L
Iron Sampled 6/3/2020 & 6/10/2020	N	**TP005010** 23.8 µg/L **TP004006** 755 µg/L **TP003003** 83.1 µg/L	ppm	N/A	N/A	Erosion of natural deposits, iron & steel piping RUL=0.3 mg/L

Manganese Sampled 6/3/2020 & 6/10/2020	N	**TP005010** 5.6 µg/L **TP004006** 0.62 µg/L **TP003003** 0.78 µg/L	ppm	N/A	N/A	Erosion of natural deposits, and industrial pollution RUL=0.05 mg/L
Radionuclides:						
Combined Radium (-226 & -228)	N	**Sampled on 2/12/2020** 1.5 pCi/L **3/11/2020** 1.5 pCi/L	pCi/L	0	5	Erosion of natural deposits

The NJDEP requires the quarterly results of the contaminant group of sodium monitoring sampling to be reported within 10 days following the end of the quarter. The lab hired by Pennsville submitted the monitoring results late to the NJDEP resulting in two violations for the first quarter of 2020 and 2019. We are pleased to tell you that your water results for Pennsville are safe for drinking and these violations are due to late submittals.

The NJDEP requires the results of the contaminant groups of iron-manganese and VOCs monitoring sampling to be reported within 10 days following the end of the monitoring period. The lab hired by Pennsville submitted the iron-manganese monitoring results late to the NJDEP resulting in a violation for the year of 2019. The lab hired by Pennsville submitted the VOCs monitoring results late to the NJDEP resulting in a violation for the third quarter of 2019. We are pleased to tell you that your water results for Pennsville are safe for drinking and these violations are due to late submittals.

A new Disinfection Byproduct Rule called Stage II took effect for Pennsville Water in 2013. The first compliance calculations for this system will be available after the third quarter of 2014 once a full year of monitoring has been completed. After the third quarter of 2013, Stage I was phased out. Stage II HAA5 and TTHM compliance is based on the locational running annual average (LRAA) calculated at each monitoring location. The LRAA for Stage II HAA5s and TTHMs is included in this report since Stage II monitoring began in the fourth quarter of 2013.

Disinfection Byproducts Stage-2 – Sampled Quarterly during 2020						
Contaminant	**Violation Y/N**	**Level Detected**	**Units of Measurement**	**MCLG**	**MCL**	**Likely Source of Contamination**
TTHM Total Trihalomethanes Test results Yr. 2020	Y	Range = 17-88 µg/L Highest Detection = 88 µg/L LRAA Range = 0.017-0.032 mg/L	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2020	Y	Range = 2.6 – 15 µg/L Highest Detection = 15 µg/L LRAA Range = 0.005-0.008 mg/L	ppb	N/A	60	By-product of drinking water disinfection

The NJDEP requires the quarterly results of the contaminant group of TTHM-HAA5 monitoring sampling to be reported within 10 days following the end of the quarter. The lab hired by Pennsville sampled the second quarter in the wrong month, they were supposed to be sampled in April 2020, but were sampled late in May 2020. The following monitoring period, these contaminants were sampled on time and were well below the MCL. We are pleased to tell you that your water results for Pennsville are safe for drinking.

The NJDEP requires the quarterly results of the contaminant groups of VOCs and Radiologicals monitoring sampling to be reported within 10 days following the end of the quarter. The lab hired by Malaga Villa Apartments submitted the monitoring results late to the NJDEP resulting in two violations for the third quarter of 2020. We are pleased to tell you that your water results for Malaga Villa Apartments are safe for drinking and these violations are due to late submittals.

Synthetic Organic Contaminants including Pesticides and Herbicides
New Jersey Department of Environmental Protection Issued a Waiver based on the vulnerability of the source (well) water to contamination by SOCs/ Pesticides.

Regulated Disinfectants	Level Detected (Average & Highest Detect)	MRDL	MRDLG
Chlorine	0.4842 (Avg.) 1.00 (High)	4.0 ppm	4.0 ppm

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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 contamination

Unregulated Contaminants*						
Contaminant	**Violation Y/N**	**Level Detected**	**Units of Measurement**	**MCLG**	**MCL**	**Likely Source of Contamination**
Synthetic Organic Compounds:						
Perfluorooctanoic Acid (PFOA)	N	**TP005010** 2.2-2.8 ng/L **TP004006** 6.3-7.6 ng/L **TP003003** 9.9-19 ng/L	ppb	0.014	0.014	**PFOA** include stain-resistant carpet, water-repellent clothes, paper and cardboard packaging, ski wax, and foams used to fight fires. **PFOA is** also created when other chemicals break down

*Although in sampling year 2020 PFOs and PFOAs were not required to be sampled, they were monitored along with PFNAs. As you can see, there were detectable levels of these contaminants in 2020. We will continue to monitor these contaminants in 2021 as required by the new sampling group regulations.

ADDITIONAL INFORMATION

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for all of these types of contaminants.

Health effects language:

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria
may be present.
(2) TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
(3) Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
(4) Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of MCL over many years may have an increased risk of getting cancer.
(5) Nitrate. Infants below the age of six months who drink water-containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
(6) Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
(7) Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
(8) Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of MCL over many years may have an increased risk of getting cancer.
(9) PFAs. PFAs can be found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor wear. PFAS cannot be boiled out of water. If tap or well water is found to contain PFAS people may choose to use home water filters or bottled water for drinking and cooking. The New Jersey Department of Health advises that infant formula and other beverages for infants, such as juice, should be prepared with bottled water when PFOA or PFOS are elevated in drinking water.

As you can see by the table, our system is safe. **We are proud that your drinking water meets or exceeds all Federal and State requirements**. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

We constantly monitor for various constituents in the water supply to meet all regulatory requirements.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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. More information

about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

When the state issues water restrictions, the Pennsville Water Department asks everyone to adhere to the state regulations. If you have any drought related questions you can contact a drought hotline representative at 1-800-448-7379 or visit the New Jersey drought website at www.NJDrought.org.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Special Considerations Regarding Children, Pregnant Woman, Nursing Mothers, and Others:
Children may receive a slightly higher amount of a contaminant present in the drinking water than adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating drinking water standards if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the case of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

Some people may be more vulnerable to contaminants in drinking water then 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call the Pennsville Water Department if you have questions at 856-678-7331.

We at Pennsville Township Water Department work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.