

**High Crest** PWSID NJ1615003

# PASSAIC VALLEY WATER COMMISSION

## 2022 Drinking Water Quality Report

Based on Data from the 2021 Calendar Year

### Why am I getting this report?

Passaic Valley Water Commission (PVWC) is pleased to welcome you to our 2022 Water Quality Report. This report provides a summary of information collected during the calendar year 2021 regarding compliance monitoring required by both the United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP), as well as additional water quality monitoring data. We hope that you will take a minute to review this report and learn more about your drinking water. **High Crest's water met all primary health-based standards in 2021.**

Drinking water regulations require PVWC to provide this information to customers each year. Most of the language is required by the EPA and NJDEP to make sure that our ratepayers know what is in their drinking water. PVWC has tried to make this complex information readable and produce this report at a low cost.

*For additional copies of this report contact our Customer Service Department at 973-340-4300, or [customerservice@pvwc.com](mailto:customerservice@pvwc.com).*

**This report covers water quality for the High Crest Service Area in West Milford.**

If your home or business is located in the High Crest Area of West Milford you are in PVWC’s High Crest Service Area. PVWC is a public drinking water supplier owned by the cities of Paterson, Clifton, and Passaic. PVWC also owns and operates the Post Brook Public Water System (PWS).

**Source Water and Treatment**

PVWC purchases treated water from the Borough of Butler for distribution to the High Crest Community. Butler obtains their water from the 150-acre Kakeout Reservoir and treats it at the Butler WTP. Butler’s treatment includes a conventional 4.0-million gallons per day system with polyaluminum chloride (PACl) and/or alum coagulation, pulsator clarification, and pressure filtration. Following clarification, sodium hydroxide is applied to the water to adjust the pH. Chlorine is then added to the treated water prior to the pressure filters. Orthophosphate is added to the filtered water for corrosion control, followed by chlorine before distribution. PVWC further adds chlorine immediately prior to the High Crest system to maintain a disinfectant residual in the distribution system.

**Source Water Assessment**

NJDEP has prepared Source Water Assessment reports and summaries for all public water systems. The Source Water Assessment for the Butler Water System (PWSID # 1403001) can be obtained by accessing NJDEP’s source water assessment web site at <http://www.nj.gov/dep/watersupply/swap/index.html> or by contacting NJDEP’s Bureau of Safe Drinking Water at 609-292-5550 or [watersupply@dep.nj.gov](mailto:watersupply@dep.nj.gov). If a system is rated highly susceptible for a contamination category, it does not mean a customer is – or will be – consuming contaminated water. The rating reflects the potential for contamination of a source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants, and to install treatment if any of those contaminants are detected at frequencies and concentrations above allowable levels.

The source water assessment performed on Butler’s Kakeout Reservoir intake lists the following susceptibility ratings for a variety of contaminants that may be present in source waters:

Intake Susceptibility Ratings								
Sources	Pathogens	Nutrients	Pesticides	Volatile Organic Compounds	Inorganic Contaminants	Radionuclides	Radon	Disinfection Byproduct Precursors
Butler Water System 1 -Surface Water Intake	High	Low	Low	Medium	Medium	Low	Low	High

**Susceptibility Chart Definitions**

**Pathogens:** Disease-causing organisms such as bacteria, protozoa, and viruses, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Common sources are animal and human fecal wastes. These contaminants may be present in source water.

**Nutrients:** Compounds, minerals and elements that aid growth, which can be either naturally occurring or man-made. Examples include nitrogen and phosphorus.

**Pesticides:** Man-made chemicals used to control pests, weeds, and fungus. Common sources include manufacturing centers of pesticides, and where they are used in agricultural, industrial, commercial, and residential environments. Examples include herbicides such as atrazine, and insecticides such as chlordane.

**Volatile Organic Compounds:** Compounds containing carbon, including synthetic and volatile organic chemicals, which are products or by-products of industrial processes or petroleum production. They are typically used as solvents, degreasers, and gasoline components. These compounds may be present in source water as a result of releases from gas stations, fuel storage tanks, industrial facilities, stormwater runoff, and other sources. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

**Inorganic Contaminants:** 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. These contaminants may be present in source water.

**Radionuclides:** Radioactive substances that are both naturally occurring and man-made; may be present in source water naturally or as a result of oil and gas production and mining activities. Examples include radium, radon and uranium.

**Radon:** Colorless, odorless, cancer-causing gas that occurs naturally in the environment.

**Disinfection By-product Precursors:** A common source is naturally-occurring organic material in surface water. Disinfection by-products are formed when the disinfectants (usually chlorine ) used to kill pathogens react with dissolved organic material (DBP precursors) present in surface water.

## About This Report

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (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. The NJ Department of Environmental Protection is charged with monitoring compliance with those limits by water providers in the state.

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. For more information about contaminants and potential health effects call the EPA's Safe Drinking Water Hotline at 800-426-4791 or visit [www.epa.gov/safewater](http://www.epa.gov/safewater).

The sources of drinking water, both tap and bottled, include surface sources such as rivers, streams, lakes, and reservoirs, and groundwater sources (wells). As water moves through the ground or over surfaces it dissolves naturally occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of human or animal activity. Contaminants that may be present in the source water include:

**Microbial-** such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, pet waste, and wildlife.

**Inorganic-** salts and metals, which can occur naturally or result from urban storm runoff, industrial, or domestic wastewater discharges, oil and gas productions, mining, or farming.

**Pesticides and Herbicides-** from a variety of sources such as agriculture, stormwater runoff, and residential uses.

**Organic Chemicals-** both synthetic and volatile, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

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



## Definitions

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Haloacetic Acids (HAAs):** By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection, HAAs will be present, but they are monitored very closely by water utilities.

**Parts Per Million (ppm) or Milligrams Per Liter (mg/L):** A measure of the concentration of a substance in a given volume of water. One part per million corresponds to one penny in \$10,000.

**Parts Per Billion (ppb) or Micrograms Per Liter (ug/L):** An even finer measure of concentration. One part per billion corresponds to one penny in \$10,000,000.

**Parts Per Trillion (ppt) or nanograms Per Liter (ng/L):** An even finer measure of concentration. One part per trillion corresponds to one penny in \$100,000,000.

**Picocuries Per Liter (pCi/L):** A measure of radioactivity.

**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 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.

**Nephelometric Turbidity Units (ntu):** A measure of particles in water.

**Recommended Upper Limit (RUL):** The highest level of a constituent of drinking water that is recommended in order to protect aesthetic quality.

**Total Trihalomethanes (TTHMs):** By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection, TTHMs will be present, but they are monitored very closely by water utilities.

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

### SPECIAL CONSIDERATIONS REGARDING CHILDREN, PREGNANT WOMEN, NURSING MOTHERS AND OTHERS

Children may receive a slightly higher amount of a contaminant present in the water than do 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 a drinking water standard 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 cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.



## A Note to People with Special Health Concerns

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 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 (1-800-426-4791).

### 2021 Water Quality Results- Table of Detected Contaminants High Crest PWSID NJ1615003

NA - not applicable  
ND - not detected

Regulated Contaminant (units)	Goal (MCLG)	Highest Level Allowed (MCL)	Butler WTP PWSID NJ1403001	Source of Substance	Violation?
<b>Treated Drinking Water at the Treatment Plant</b>					
Turbidity (NTU)	NA	Treatment Technique (TT) = 1 NTU	Highest Level Detected 0.86	Soil run-off	No
	NA	TT= % of samples <0.3 NTU (min 95%)	Lowest Monthly Percentage of Samples Meeting Turbidity Limits 95.89%		
	<i>Turbidity is a measure of the cloudiness of the water and is monitored as an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.</i>				
Total Organic Carbon (%)	NA	TT = % Removal or Removal Ratio	47.83-60.0 actual range of % removal (% removal required 45%)	Naturally present in the environment	No
<b>Inorganic Contaminants</b>					
Barium (ppm)	2	2	0.008	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	No
Chromium (ppb)	100	100	0.377	Discharge from steel and pulp mills	No
Nickel (ppb)	NA	NA	0.558	Erosion of natural deposits.	No
<b>Radiological Contaminants</b>					
Gross Alpha (pCu/L)	0	15	1.15 (2014 Data)	Erosion of natural deposits.	No
Combined Radium (pCi/L)	0	5	0.52 (2014 Data)	Erosion of natural deposits.	No
<b>Treated Drinking Water from Points throughout the Distribution System- High Crest PWSID NJ1615003</b>					
<b>Disinfection Residual</b>					
Chlorine (ppm)	4	4	0.62 <i>highest running annual average (0.03-1.48)</i>	Water additive used to control microbes.	No
<b>Disinfection Byproducts</b>					
Haloacetic Acids [HAA5] (ppb)	NA	60	34.5 <i>highest running annual average at any one location (28.6-40.3)</i>	By-product of drinking water disinfection	No
Total Trihalomethanes [TTHM] (ppb)	NA	80	57.4 <i>highest running annual average at any one location (31.7-55.7)</i>	By-product of drinking water disinfection	No
<i>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 system and may have an increase risk of getting cancer.</i>					
<b>Regulated at the Consumer Tap</b>					
Copper (ppm)	1.3	1.3 (Action Level)	0.05 (90th percentile) (0 out of 11 samples exceeded Action Level)	Corrosion of household plumbing systems	No
Lead (ppb)	0	15 (Action Level)	0 (90th percentile) (0 out of 10 samples exceeded Action Level)	Corrosion of household plumbing systems	No
<i>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 the water over many years could develop kidney problems of high blood pressure.</i>					

# Administrative Consent Order (ACO) Updates

**Who:** PVWC and NJDEP

**What:** The parties involved entered into the ACO to combat the Maximum Contaminant Level (MCL) exceedance of Total Trihalomethanes (TTHM) from the 1st and 2nd quarters of 2019. The MCL for TTHMs is 80 ppb (parts per billion). Compliance for TTHMs for the High Crest Public water system is based upon quarterly collection and calculating a running annual average which must remain below the MCLs.

**Where:** The High Crest Distribution System

**When:** ACO compliance required by October 1, 2021

**Why:** Some people who drink water containing TTHMs 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. With the exceedance of the MCL in the High Crest distribution system, remedial actions were required to correct the high levels.

**How:** PVWC constructed and installed a dedicated water main to pump water from the High Crest Pump Station into storage tanks where all water will be treated by the existing storage tank spray nozzle recirculation systems.

***All work has been completed and High Crest was in compliance and under the MCL for TTHM in 2021. Thank you for your patience and working with us during this time!***

## 2021 Water Quality Results- Table of Detected Secondary Parameters

Contaminant	NJ Recommended Upper Limit (RUL)	Butler WTP PWSID NJ1403001	
		Result	RUL Achieved?
<b>Treated Drinking Water at the Treatment Plant</b>			
Alkalinity (ppm)	NA	29	NA
Aluminum (ppb)	200	99.5	Yes
Chloride (ppm)	250	67.6	Yes
Hardness, CaCO <sub>3</sub> (ppm)	250	52	Yes
Iron (ppb)	300	<100	Yes
Manganese (ppb)	50	2.24	Yes
Odor (Threshold Odor Number)	3	1	Yes
pH	6.5 to 8.5 (optimum range)	6.78	Yes
Sodium (ppm)	50	33.6	Yes
Sulfate (ppm)	250	7.21	Yes
Total Dissolved Solids (ppm)	500	81	Yes

### ADDITIONAL INFORMATIONAL RESOURCES

PVWC website: [www.pvwc.com](http://www.pvwc.com)

EPA Drinking Water website: [www.epa.gov/safewater](http://www.epa.gov/safewater)

NJDEP Water Supply website: [www.nj.gov/dep/watersupply](http://www.nj.gov/dep/watersupply)

American Water Works Association (AWWA) website: [www.awwa.org](http://www.awwa.org)

PVWC Customer Service Department: 973-340-4300

EPA Safe Drinking Water Hotline: 800-426-4791

NJDEP Bureau of Safe Drinking Water: 609-292-5550

AWWA New Jersey Section website: [www.njajwwa.org](http://www.njajwwa.org)

## Important Information About Lead In Your 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. PVWC 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



### Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of the body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

### Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. Lead can also be found in certain types of pottery, pewter, brass plumbing fixtures, food, and cosmetics. Lead is found in some toys, some playground equipment, and some children's metal jewelry. Exposure in the work place and exposure from certain hobbies can also be sources (lead can be carried on clothing or shoes).

Lead is not present in the water supplied to you. When water has been in contact with pipes or plumbing that contains lead for several hours, the lead may enter the drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead. Homes built before 1985 are more likely to have plumbing containing lead or lead solder. New homes may also have lead. Even brass faucets, fittings, and valves, including those advertised as "lead-free" may contain some lead.

### Water Testing

Routinely, homes known to contain lead service lines and/or plumbing components are monitored in PVWC's High Crest system. These houses represent a worst-case scenario for lead in water. Samples are collected after the water has been standing in the household plumbing for 6 hours or more.

A Lead and Copper Rule exceedance for lead occurs when more than 10 percent of these homes exceed the lead action level of 15 parts per billion.

In the most recent round of testing conducted by PVWC, 0 out of 10 homes exceeded the action level for lead.

### FOR MORE INFORMATION

Contact us at 973-340-4300, [customerservice@pvwc.com](mailto:customerservice@pvwc.com) or visit our website at [www.pvwc.com](http://www.pvwc.com). For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's resources below, or contact your health care provider.

EPA's Safe Drinking Water Hotline: 800-426-4791

National Lead Information Center: 800-424-LEAD

EPA Website: [www.epa.gov/lead](http://www.epa.gov/lead)

### How You Can Reduce Your Exposure to Lead

- 1. Run your water to flush out lead.** Run your cold water for 30 seconds to 2 minutes or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. This flushes lead-containing water from the pipes. Flushing usually uses less than one or two gallons of water and costs less than 30 cents per month.
- 2. Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- 3. Do not boil water to remove lead.** Boiling water will not reduce lead.
- 4. Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. If purchasing a water filter, read the package to be sure the filter is approved to reduce lead. You can also contact NSF International at 800-NSF-8010 or visit their website at [www.nsf.org](http://www.nsf.org) for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.
- 5. Test your water for lead.** Call PVWC at 973-340-4300 to find out how to get your water tested for lead, or for a list of local laboratories that are certified for testing lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.
- 6. Get your child's blood tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead.
- 7. Identify and replace plumbing fixtures containing lead.** A licensed plumber can check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. Your local building/code department can provide you with information about building permit records that should contain the names of plumbing contractors who plumbed your home.
- 8. Find out whether your service line is made of lead.** PVWC maintains records of PVWC-owned materials, such as service lines (water main to curb box), located in the distribution system. Contact our Customer Service Department at 973-340-4300 for service line materials records or go online to [www.pvwc.com/LeadLookUp/](http://www.pvwc.com/LeadLookUp/)

You should also determine whether or not the service line that comes from the curb box to your home is made of lead. The best way to determine if the service line to your home is made of lead is by hiring a licensed plumber to inspect the line.



**Passaic Valley Water Commission**  
**1525 Main Avenue • P.O. Box 230**  
**Clifton, NJ 07011**

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This report contains information about your drinking water. If you do not understand it, please have someone translate it for you.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

આ અહેવાલ માં તમારા પીવાના પાણી વિષે  
 સહાયતાની જાણ કરી શકાય તેવી માહિતી છે.  
 તેનો અર્થ સમજાવવા કે તેને સમજાવવા પડતી  
 શોધ તેના સાથે આપ કરો

المعلومات في هذا التقرير تحتوي على  
 معلومات مهمة عن مياه الشرب التي  
 تشربها. من فضلك اذا لم تفهم هذه  
 للمعلومات اطلب من يترجمها لك.

HC

Dear Passaic Valley Water Commission Consumer,

I am pleased to share the 2022 Drinking Water Quality Report with you. Passaic Valley Water Commission (PVWC), prides itself in providing this comprehensive and accessible report. This report provides our customers with important information about the quality of their drinking water.

Your drinking water is delivered to your tap through an extensive distribution system of pipes, tanks, and reservoirs. This is all made possible by our dedicated and certified staff that manage and maintain this system to preserve the drinking water quality. Throughout this process, the PVWC monitors your drinking water for more than 200 regulated and unregulated contaminants to ensure that our system delivers high-quality drinking water that meets or surpasses state and federal standards.

If you have any questions related to this report, water quality, water pressure, billing, construction projects, or other inquiries, please contact our Customer Service Department at 973-340-4300. Our hours of operation, including the walk-up payment window, are Monday through Friday, excluding State holidays, from 7:30 a.m. to 6:00 p.m. Our phone lines are open an extra half hour until 6:30 p.m. You can also contact us via email at customerservice@pvwc.com. Additional information about PVWC, including important news and alerts, can be found on our website at www.pvwc.com. For emergencies call 973-340-4300, 24 hours per day/7 days per week.

Sincerely,  
 Rigoberto Sanchez  
 President, PVWC Board of Commissioners

## We're Here for You

The PVWC Board of Commissioners encourages you to participate in decisions that may affect the quality of your drinking water. You can present your comments through the PVWC website at [www.pvwc.com](http://www.pvwc.com) or come in person to the monthly meetings of the Board of Commissioners. For dates, times and locations of these meetings, or for additional copies of this report contact our Customer Service Department at 973-340-4300, or [customerservice@pvwc.com](mailto:customerservice@pvwc.com). All meetings are announced in accordance with public meetings law.

For Board Agendas and Meeting Minutes, or for more information on upcoming meetings visit us at [www.pvwc.com](http://www.pvwc.com) or contact our Customer Service Department at 973-340-4300, or [customerservice@pvwc.com](mailto:customerservice@pvwc.com).



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