

Annual Drinking Water Quality Report For 2021
Village of Pawling
9 Memorial Ave., Pawling, New York
(Public Water Supply ID # 1302772
including Pawling Water District No. 1 ID # NY1321117)

INTRODUCTION

The Village of Pawling is required by New York State and Federal regulations to provide users with a report annually that describes the quality of your drinking water. The purpose of this report is to increase your understanding of drinking water and the need to protect our drinking water sources. The regulations governing New York Water Supplies are found in the State Sanitary Code at 10NYCRR5-1 and include drinking water standards for many natural and manmade chemicals, referred to as Maximum Contaminant Levels. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate any maximum contaminant level. This report provides an overview of last year's water quality results and details about where your water comes from, what it contains, and how it compares to State standards.

While the quality of the drinking water that was supplied to you always met the standards, the Village's water supply sources have been challenged to produce enough water to meet the Village's needs. Source capacity issues have plagued the Village for at least 3 decades.

- The Village commenced using one of the two Umscheid wells on October 6, 2020 under emergency authorization from both the NYS Department of Environmental Conservation and the NYS Department of Health. Since then, this source has reliably contributed 144,000 gallons of water each day to the Village's system. The addition of this water allowed the Village to flush its distribution system for the first time in over 30 years. On October 1, 2021, NYSDEC issued all permits that the Village needs to construct permanent facilities that will allow the Village to use up to 288,000 gallons per day from the former Umscheid property. The Village expects all of the Umscheid water work to be completed by the end of 2023.
- The Village also identified and tested a second groundwater source during 2021 which is known as the Lower Baxter Wellfield. The Village is in the process of seeking permits to use this source in conjunction with the Umscheid source. Together, these groundwater sources have the capacity to bring the Village's source into full 10NYCRR Compliance.

If you have any questions about this report or concerning your drinking water, please contact Environmental Consultants at (845) 486-1030. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled board meetings. The meetings are held every first and third Monday of each month at 7:00 PM at the Village Hall.

WHERE DOES OUR WATER COME FROM?

The sources of drinking water in the Village are bedrock and Sand and Gravel wells. Water running over the surface of the land dissolves naturally occurring minerals and manmade chemicals and can pick up microbiological active contaminants like algae and bacteria. Water flowing through the ground can dissolve natural chemicals and manmade chemicals. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. The NYSDOH and the Environmental

Protection Agency (EPA) set water quality standards and monitoring requirements for drinking water. Suppliers of water are required to regularly sample drinking water and to compare those results to the standards. Drinking water is determined to be safe when suppliers conform with sampling requirements and when results demonstrate that the water has concentrations equal to or less than the Maximum Contaminant Levels.

Our water system serves approximately 2,200 people through 654 service connections. Our water supply consists of seven wells located in the Town and Village of Pawling. There are four pump house locations where the well water is treated with chlorine as a disinfectant before being introduced into the distribution system.

Pawling also stores water in a 522,000-gallon distribution storage tank.

This system also provides water to a small area in the Town of Pawling known as Pawling Water District No. 1. This area is located on Reservoir Rd. outside the Village limits including the Pawling High and Middle Schools and Prospect and Westmount Avenue. These areas have an estimated population of 50 – 450 people depending upon the occupation of the schools.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include; total coliform, inorganic compounds, nitrates, nitrites, lead and copper, volatile organic compounds, radionuclides, total trihalomethanes, haloacetic acids, synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than one year old.

The table below includes both the USEPA standard for “Emerging Chemicals of Concern” called PFOA’s and PFOS’s. The USEPA Maximum Contaminant Level for these compounds is 70 parts per trillion (ppt). The NYSDOH Maximum Contaminant level, established during the fall of 2020, for these same compounds is 10 ppt. PFOA was detected in the Village’s Corbin well at 9.95 ppt and confirmed at 9.90 ppt. These very low concentrations are a concern and it is for this reason that the Village will discontinue the use of the Corbin Well when the Umscheid Wellfield is fully on-line.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not indicate that water poses a health risk. There is a risk when concentrations exceed Maximum Contaminant Levels. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-462-4791) or the Dutchess County Department of Behavioral and Community Health at (845) 486-3400.

TABLE OF CONTAMINANTS

Contaminant	Violation Yes/No	Date Of Sample Reported Below	Level Detected	Unit of Measurement	MCL Goal	MCL	Likely Source of Contamination
Microbiological Contaminants							
Inorganic Contaminants							
Barium	No	4-28-20	0.82 Max .029 -0.82 Range	mg/l	2.0	2.0	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	12-30-20	200 Max 6.3 – 200 Range	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Lead*	No Foot note 1	6/14- 6/22/21 12/9- 12/16/21	90 th % 3.1 ND-5.1 90 th % 1.7 ND-1.7	ug/l	0	AL=0. 015	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No Foot note 2	6/14- 6/22/21 12/9- 12/16/21	90% .190 .015-.400 90 th % .350 ND – 1.4	mg/l	1.3	AL=1. 3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Manganese	No	9-19-17	0.053 Max ND -0.053 Max	mg/l	N/A	.3	Naturally occurring; Indicative of landfill contamination.
Sulfate	No	9-19-17	59.0 Max 18.3 - 59.0 Range	mg/l	N/A	250	Naturally occurring.
Sodium	No ***	12-30-20	57 Max 13 – 57 Range	mg/l	See Health Effects	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Zinc	No	9-19-17	0.022 Max .005 -0.022 Range	mg/l	N/A	5	Naturally occurring; Mining waste.
Antimony	No	9-19-17	0.0015 Max ND -0.0015 Range	mg/l	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Calcium	No	9-19-17	94.3 Max 49.1 – 94.3 Range	mg/l			Naturally Occurring
Nickel	No	4-28-20	.0033 Max .0018-.0033 Range	Mg/l	N/A	N/A	Naturally occurring in low levels
Magnesium	No	9-19-17	43.7 Max 18.9 – 43.7 Range	mg/l	N/A	N/A	Naturally occurring; Indictive of landfill contamination
Nitrate	No	3-11-21	4.1 Max 0.23 -4.1 Range	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfection Byproducts							
Total Trihalomethanes	No	8/19/21	10 Kings Apts. 9.4 10 Greenlawn Dr	ug/l	n/a	80	By-product of drinking water chlorination needed to kill harmful organisms.
Halocetic Acids	No	8/19/21	5 Kings Apts. 3.7 10 Greenlawn Dr	ug/l	n/a	60	By-product of drinking water chlorination needed to kill harmful organisms.
Radiological Contaminates							
Gross Alpha activity (including radium-226 but excluding radon and uranium)	No	2021	(0.2-25.0) ^{note A} 12.4 ^{notes B,D}	pCi/L	0	15	Erosion of natural deposits.
Uranium	No	2021	(12.7-27.3) ^{note A} 27.2 ^{note B,E}	ug/L	0	30	Erosion of natural deposits.
Beta particle and photon radioactivity from manmade radionuclides	No	2021	0.3-29.7 Range	pCi/L	0	50 ^{note C}	Decay of natural deposits and Man-Made emissions.
Combined radium - 226 and radium-228.	No	2021	(0.8-7.9) ^{note A} 4.8 ^{note B}	pCi/L	0	5	Erosion of natural deposits

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Synthetic Organic Contaminants PFOA and PFOS							
Perfluooctanoic Acid (PFOA) Corbin, Baxter, Libby Wells	No No No No	1/12/21 5/19/21 9/30/21 12/8/21	(ND-9.90) ^{note A} (ND-9.18) ^{note A} (ND-12.1) ^{notes A,F} (2.47-8.05) ^{note A}	ng/L	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanesulfonic Acid Corbin, Baxter, Libby Wells	No	1/12/21 5/19/21 9/30/21 12/8/21	(ND- 4.95) ^{note A} (ND- 4.50) ^{note A} (ND- 4.92) ^{note A} (.684- 4.75) ^{note A}	ng/l	N/A	10	Released into the environment from widespread use in commercial and industrial applications.

Table of Unregulated Contaminants

Contaminant	Date of sample	Level Detected Range	Unit Measurement	Likely Source of Contamination
Synthetic Organic contaminants Corbin 86				
Perfluorobutanesulfonic Acid (PFBS)	5/19/21 1 9/29/21 1	1.67-2.59	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanoic Acid (PFHxA)	5/19/21 1 9/29/21 1	2.86-4.53	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanesulfonic Acid (PFHpA)	5/19/21 1 9/29/21 1	1.26-2.09	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanesulfonic Acid (PFHxS)	5/19/21 1 9/29/21 1	.668-1.01	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

Synthetic Organic contaminants Libby 1

Perfluorobutanesulfonic Acid (PFBS)	5/19/21 9/29/21	2.09-2.54	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanoic Acid (PFHxA)	5/19/21 9/29/21	4.42-4.72	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorononanoic Acid (PFNA)	5/19/21 9/29/21	.672-3.83	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanesulfonic Acid (PFHpA)	5/19/21 9/29/21	4.49-4.50	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

Synthetic Organic contaminants Libby 2

Perfluorobutanesulfonic Acid (PFBS)	5/19/21 9/29/21	1.30 1.92	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanoic Acid (PFHxA)	5/19/21 9/29/21	1.00 4.78	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanesulfonic Acid (PFHxS)	9/29/21	.713	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorononanoic Acid (PFNA)	5/19/21 9/29/21	1.26 4.39	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorohexanesulfonic Acid (PFHpA)	5/19/21 9/29/21	.705 4.10	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

Synthetic Organic contaminants Baxter Green 1				
Perfluorobutanesulfonic Acid (PFBS)	5/19/21	24.9	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
	9/29/21	19.3		
Perfluorohexanoic Acid (PFHxA)	5/19/21	6.68	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
	9/29/21	8.22		
Perfluorohexanesulfonic Acid (PFHpA)	5/19/21	4.55	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
	9/29/21	5.55		

Synthetic Organic contaminants Baxter Green 2				
Perfluorobutanesulfonic Acid (PFBS)	5/19/21	2.58	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
	9/29/21	10.4		
Perfluorohexanoic Acid (PFHxA)	5/19/21	.619	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
	9/29/21	.965		

Synthetic Organic contaminants Umscheid				
Perfluorobutanesulfonic Acid (PFBS)	5/19/21	.627	ng/L	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

Notes:

- A. The level in the table above represents the range of detected values.
- B. The level presented in the table above represents the highest running annual average (RAA) of the detected levels. Compliance with regards to Maximum Contaminant Level (MCL) is based on the RAA meeting the MCL limits set by New York State.
- C. The State considers 50 pCi/L to be the level of concern for beta particles.
- D. Uranium was not analyzed by the contracted laboratory in the 4th quarter of 2020. We had to substitute the uranium value with the smallest value from calendar years 2018-2020, which would be the worst-case scenario. This well was offline most of the 2021 calendar year.
- E. This number is our best approximation using the highest uranium value from calendar years 2018-2020. The result using that substitution is giving a worst-case scenario.
- F. The result of 12.1 ng/L is over the MCL value of 10 ng/L and would have constituted an MCL violation if the well was in use. The well has not been in use since 6/23/21 therefore, it is not classified as an MCL violation.

Footnotes:

1. The level presented represents the 90th percentile of the 20 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In each case twenty samples were collected at your water system and the 90th percentile values were 0.0031 mg/l, the highest value, 0.113 mg/l and .0017 mg/l and the highest value of .0051 mg/l respectively. The action level for lead was not exceeded.
2. The level presented represents the 90th percentile of the samples collected. A percentile is a value on a scale of 100 that indicates the percent of a distribution that

is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In each case twenty samples were collected at your water system and the 90th percentile value was 0.190 mg/l, the highest value, 0.400 mg/l and .010mg/l and the highest was 1.4 mg/l respectively. The action level for copper was not exceeded.

*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.

*** Water containing more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets.

Definitions:

Variance & Exemption (V&E) – state or EPA permission not to meet an MCL or treatment technique under certain conditions.

Action Level (AL) – The concentrations 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.

Maximum Contaminant Level (MCL) – The “Maximum Allowed” (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.

Maximum Contaminant Level Goal (MCLG) – 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.

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 (ug/l) – 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) – measures of radiation absorbed by the body.

Million Fibers per liter (MFL) – million fibers per liter is a measure of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Units (NTU) – is a unit of measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Mathematical Conversions

1 mg/l = 1 ppm

1 ug/l = 1 ppb

1 ppm / 1000 = 1 ppb

1ppb x 1000 = 1 ppm

90th %

This is a way of measuring an average of samples and the results are recorded of the samples that are in the 90% range of all samples collected.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the state.

Lead. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The Village of Pawling 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, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

On October 23, 2020, the Village and DCDBCH entered into a Consent Agreement that requires the Village to investigate, design, seek approval for, construct and bring on-line additional source capacity. The Consent Order remains in effect and the Village is in compliance with the Conditions of the Consent Order and expects that the Village water supply will fully comply with the Consent Order requirements in 2022 or 2023.

During 2021, our system did not have any MCL violations. However, on December 10, 2020 Radiologicals were collected but unfortunately Uranium was not tested for as part of the sampling. This failure constitutes a non-compliance.

A tier 3 notification is listed below.

Monitoring Requirements Not Met for Village of Pawling. On December 10, 2020 Radiologicals were collected but unfortunately Uranium was not tested for as part of the sampling. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation. *We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. What should I do? There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. What is being done? We will make sure when Radiologicals are tested for that Uranium is included. For more information, please contact Kenny Sabia at 845-486-1030 or Environmental Consultants, PO Box 3148, Poughkeepsie, NY 12603. 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. This notice is being sent to you by The Village of Pawling Water District.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised are persons such as those with cancer under-going chemotherapy, persons who have undergone organ transplants, and people with HIV/AIDS or other immune system disorders. The elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider. Environmental Protection Agency and Center of Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological contaminants are available from the **Safe Drinking Water Hot Line (1-800-426-4791)**.

INFORMATION ON RECENTLY REGULATED CONTAMINANTS

In 2021, we were required to collect and analyze drinking water samples for the following contaminants: PFOS and PFOA.

Addition information on the (PFOA and PFOS) can be found on the EPA's website:

<https://www.epa.gov/ground-water-and-drinkind-water/drinking-water-health-advisories-pfoa-and-pfos>

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

The Village operated in 2021 under restricted use and the restricted use requirement will continue until the terms of the DCDBCH Consent Order are satisfied. Under this notice all users are asked to minimize domestic water supply consumption. Additionally, no users are allowed to use the Village's water supply for outside purposes such as: Car washing, lawn irrigation, pool filling and house washing.

After the Water Supply conforms with all NYSDOH requirements, there are still reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire-fighting needs are met.
- ◆ And it saves you money as your water bill is based on the volume you use, use less and save.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose

up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

- ◆ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes. If it moved, you have a leak.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water. We ask that all our customers help us protect our water sources. If you have any questions regarding the information presented in this report, please do not hesitate to contact Environmental Consultants at 845-486-1030. We are the operators of your water system and are here to answer any of your questions.