Pine Plains Water Improvement Area #1

2017 Annual Drinking Water Quality Report

Public Water Supply ID #1302773

Introduction

To comply with state and federal regulations, the Pine Plains Water Improvement Area will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system has not violated any maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where our water comes from, what it contains, how it compares to State standards, and what it means.

If you have any questions about this report or concerning your drinking water, please contact the water department **at 518-398-1411.** We want you to be informed about our drinking water. If you want to learn more, please attend any of the Town of Pine Plains, regularly scheduled Town meetings. They are held on the third Thursday of each month at 7:00 P.M. at the Town hall.

Where does our water come from?

In General, the source of drinking water (both tap water and bottled water) includes 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 in some cases, radioactive material, can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves a population of 880 people through 221 service connections. The Pine Plains Water Improvement Area's water source is from two drilled wells, each approximately 110 feet deep that draw from an underground aquifer along the Wappinger Creek drainage basin. The raw water is then disinfected with sodium hypochlorite within the pump house facility to remove microbiologic contaminants prior to distributing it to our customers.

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, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and 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, are more than one year old.

It should be noted that all drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants in the water 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 EPA's Safe Drinking Water Hotline 800-426-4791 or the Dutchess County Health Department at 845-486-3404.

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've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Milligrams per liter (mg/l): - corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).
Micrograms per liter (ug/l): corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).
Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.
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 of health. MRDLGs do not reflect the benefits of the use of contaminants to control microbial contamination.
Picocuries per liter (pCi/L): a measure of radioactivity in water.
Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

2013 – 2017 ANALYTICAL TEST RESULTS

Contaminant	Violation Y/N	Date Sampled	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	**NO**	1/17 -12/17 Monthly	0 Positive Sample	N/A	0	Level 1 Assessment = 2 or more positive samples	Naturally present in the environment.
Inorganic Contaminants							
Nitrate (as Nitrogen)	**NO**	7/24 2017	0.16	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite	**NO**	7/7 2014	0.33	mg/l	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Copper	**NO**	9/22 2017	0.088 Range (0.035-0.113)	mg/l	1.3	Action Level = 1.3	Corrosion of household plumbing system; Erosion of natural deposits; leaching of wood preservatives.
Lead	**NO**	9/22 2017	2.6 Range (0.1-2.8)	ug/l	0	Action Level = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Arsenic	**NO**	7/24 2017	2	ug/l	N/A	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	**NO**	7/24 2017	0.07	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	**NO**	7/24 2017	2	ug/l	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Nickel	**NO**	7/24 2017	1	ug/l	N/A	N/A	Erosion of natural deposits.
Thallium	**NO**	7/24 2017	0.01	ug/l	0.5	2	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.

-CONTINUED ON REVERSE SIDE-

Disinfection Byproducts Contaminants							
Trihalomethanes (TTHMs)	**NO**	8/31 2017	5.62	ug/l	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids (HAA5)	**NO**	8/25 2017	3.9	ug/l	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms.
Radionuclides							
Radium 226 And 228 (Total)	**NO**	7/07 2014	1.0	pCi/L	0	5	Erosion of natural deposits.

Notes:
1- The level presented represents the 90th percentile of the 10 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 copper or lead values detected in your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the ninth highest value (Cu=0.088 mg/l, Pb=2.6 ug/l). The action level for copper and lead was not exceeded at any of the sites tested.

Microbiological Contaminants:
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. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Inorganic Contaminants:
Nitrate: Infants below the age of six 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.

Copper: Copper is an essential nutrient, but some people who drink water containing copper is excess of the action level over a relatively short amount of time could experience gastrointestinal distress. 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.

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 their learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Arsenic: Some people who drink water containing Arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Radionuclides:
Alpha and Beta Particles, Radium 226 and 228: Radionuclides including the alpha and beta particles, along with radium 226 and 228 are naturally occurring radioactive elements that may also be found in drinking water. Some people exposed to elevated levels of these radionuclides over many years in drinking water may have an increased risk in getting cancer. The State considers 50 pCi/L to be the level of concern for each of these particles.

What does this information mean?
As you can see by the table, our system had no water quality violations. We have learned through our monitoring and testing that some constituents have been detected; however, these contaminants were detected below the level allowed by the State. The EPA has determined that your water **IS SAFE** at these levels. We are required to present the following information on lead in drinking water:

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 Pine Plains Water Improvement Area 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 system meeting other rules that govern operations?
During 2017, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

Do I Need to Take Special Precautions?
Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 infection. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium, giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Why Save Water and How to Avoid Wasting it?
Although the Pine Plains Water Improvement Area water system has an adequate amount of water to meet present and future demands, there are a number of 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.
- 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.

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's not hard to conserve water. 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. Fixing a faucet leak 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 per day from one of these otherwise invisible toilet leaks. Fixing such a leak can save more than 30,000 gallons per year.
- Repair plumbing leaks promptly. To find a leak, turn off all water-using equipment for 20 minutes. Read your water meter at the beginning and the end of the 20 minutes, the reading should be the same. If not, suspect a leak and take action.
- Use low flow showerheads, toilets, faucets and other water saving devices.
- Water plants and lawns only in the evening, after the heat of the day, to reduce evaporation.

Closing
Thank you for allowing us to continue to provide your family with quality drinking water this year. Please call our office if you have questions. We at the Pine Plains Water Improvement Area work around the clock to provide top quality water to every tap. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. 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.