



*Town of Peru
Annual Drinking Water Quality Report for 2009
Peru Water District
3036 Main Street
Peru, NY 12972
(Public Water Supply ID#0900216)*

INTRODUCTION

To comply with State regulations, Peru Water District, 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, we conducted tests for many contaminants required by NYS and the E.P.A. As we told you at that time, our water temporarily exceeded a drinking water standard. To comply with new regulations we need to involve the town engineer and the county health department to work alongside the town to try a different approach to disinfect our water supply. This will involve added increased sampling along with close monitoring of flow at the reservoir and the possibility of a change in the type of disinfection used. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Gregory Timmons, Water & Sewer Superintendent, 518-643-8125 or the Clinton County Health Dept at 518-565-4870. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held every second and forth Monday of every month at 6:30 pm at the Peru Town Hall.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both 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, in some cases, radioactive material, and 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.

The Town of Peru supplies three water districts and one out of district area with water from two sources. The primary source is Furnace Brook that fills the Town reservoir, which holds approximately 1.6 million gallons. The secondary source is the Little AuSable River, which is held in reserve for an emergency pumping facility on River Road. Both of these areas are of good inorganic and physical qualities.

The water is sent by gravity to the Water Filtration Plant where it is pre-treated for organic that are separated and filtered out by passing through different sized stone media. Step two involves the water passing through activated charcoal filters for clarity. The water is then disinfected by chlorine and sent to the water tower for contract time. It is then sent to the various water districts for consumption.

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants move can move to the source. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to customers is, or will be contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants detected. The source water assessment provides resource managers with additional information for protecting source water in the future.

This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of pasture in the assessment area results in a high potential for protozoa contamination. No permitted discharges are found in the assessment area. There are no noteworthy contamination threats associated with other discrete contamination sources. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

Please note that, while the source water assessment rates reservoirs as highly sensitive to microbials, our water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination. A copy of this assessment, including a map of the assessment area, can be obtained by contracting us, as noted.

FACTS AND FIGURES

We have 780 service connections supplying water to approximately 2600 residents. The total amount of water produced in 2009 was 45.5 million gallons. The daily average of water treated and pumped into the distribution system is 120,500 gallons per day. In 2009, our rates were \$50.00 for the first 6,000 gallons of water used and an additional \$3.75 per 1,000 gallons.

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, E-coli, turbidity, primary inorganic compounds, nitrate, lead and copper, total trihalomethanes, haloacetic acids, total organic compounds and principal organics and radiologicals. 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 drinking 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. 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 Clinton County Health Department at 518-565-4870.

Contaminant	Violation Y/N	Date of Sample	Level Detected (average - range)	Unit Measurement	MCL G	Regulatory Limit (MCL, T or AL)	Likely Source Of Contamination
Turbidity*	N	Jan-Dec-09	0.01-.28 100 < 1.0	NTU		TT=95% of sample < 1.0	soil runoff
Turbidity*	N	Jan 09	0.28	NTU		TT≤1.0 NTU	Erosion of natural deposits
Inorganic Contaminants							
Copper	N	9/29/2009	0.16 (a) (0.051- 0.69)	mg/l	1.3	1.3 AL	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	N	9/29/2009	10(b) ND -10	ug/l	0	15 AL	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate	N	12/17/2009	0.10	mg/l	< 5	10	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.
Disinfection Byproducts - Stage 1							
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromet hane, and bromoform) **	Y	1 ST QUARTER 2009	RAA = 84.23 (22 -110)	ug/l	n/a	80 MCL	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 (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid) ***	Y	4 TH QUARTER 2009	RAA = 71.1 (32.9 - 120.0)	ug/l	n/a	60 MCL	By-product of drinking water disinfection needed to kill harmful organisms.
Disinfection Byproducts - Stage 2							
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromet hane, and bromoform) **	N	June 09- Nov 09	Range 57.0 -100	ug/l	n/a	80 MCL	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 (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid) ***	N	June 09- Nov 09	Range 57.0 -100	ug/l	n/a	60 MCL	By-product of drinking water disinfection needed to kill harmful organisms.
Radiological Contaminants							
Radium 226	N	11/19/2008	0.04	pCi/l	0	5	Erosion of natural deposits

Notes:

* – **Turbidity** is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU. All NTU measurements (100%) were below TT and did not constitute a treatment technique violation.

** **TTHMs**. Some people who drink water that contains trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and have an increased risk of getting cancer.

*****Haloacetic Acids**. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

(1)-Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present. No Coliforms were found.

(2)-Copper is an essential nutrient, but some people who drink water containing copper in 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.

(3)-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.

(a)- 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 values detected at your water system. In this case, 10 samples were collected from our water system at many different locations around our Town and the 90th percentile value was the second highest value (0.16 mg/l).

(b)- The level presented represents the 90th percentile of the 10 samples collected (6 ug/l). The action level for lead was not exceeded at any of the 10 sites tested.

Definitions:

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 to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

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

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

RRA: Running annual average

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system uncovered some problems this year. In the year 2004, the Town of Peru started a new series of quarterly water testing to comply with the enhanced surfaced water treatment ruling for E.P.A. and New York State. The two tests that are required analyze for organic compounds in the drinking water that form after chlorine for disinfection has been added. The tests that are required are trihalomethanes and haloacetic acids.

Compliance with the rule is determined by averaging the sample results over four quarters. The results show that in the first quarter of 2009, the RAA for Total Trihalomethanes were above the MCL resulting in a violation. We also received a violation for the fourth quarter RAA for Haloacetic Acids. We received another violation for the second quarter for Total Organic Carbon results indicated inadequate disinfection byproduct precursor removal. We also received another violation for not having our cross connection control plan implemented.

We had a boil water order in May due to a shutdown to replace valves for an improvement at State Route 442 and State Route 22.

At times when heavy rains or other situations have occurred that have made reaching these new standards difficult and violations were made. Because of these findings the Town is in the process of reducing the levels of trihalomethanes and haloacetic acids in the drinking water to be within normal operating parameters to comply with regulations and deliver safe and potable drinking water by involving the town engineer and the county health department to work alongside the town to try a variation of our disinfection process. This will involve added increased sampling along with close monitoring of flow at the reservoir and the possibility of a change in the type of disinfection used.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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 infections. 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 our 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; 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.
- 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.

CLOSING:

During 2009 new water meters have started to be installed. This program is going to continue through 2010 until all the meters have been installed. This will move the town in a direction so that in the future a radio system can be used to read the meters quickly and efficiently. The town has also implemented a back flow prevention program that will stop water from siphoning back into the water mains if a water break occurs or from pressure reduction due to these of fire hydrants. This program is for commercial customers that have been classified after a survey taken by the town and shows that the customer must comply with the backflow regulations.

As always the water & sewer department is working to deliver good clean water twenty four hours a day seven days a week to service the community. If you have any questions call the water & sewer dept. at 643-8125 Mon-Fri-7:30 am to 3:00 pm

Thank You,

Greg Timmons
W/S Superintendent