

The E.P Forrestel Water Treatment
Facility

-And-

The Akron Water System

Present the:

Annual Water Quality Report

For the Year of 2014

*Annual Drinking Water Quality Report for 2014
Village of Akron Water System
21 Main St, Akron 14001
Public Water Supply ID# NY1400397*

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INTRODUCTION

To comply with State regulations, the Village of Akron will be issuing a report annually 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. 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. Last year, we conducted tests for over 80 contaminants. We detected six of those contaminants, and only found one of those contaminants at a level higher than the State allows. As we told you at that time, our water temporarily exceeded a drinking water standard and we rectified the problem by decreasing the amount of chlorine added to the water.

If you have any questions about this report or concerning your drinking water, please contact **The E.P. Forrestel Treatment Plant at 585-547-9410**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. The meeting schedule is available from the Village Clerk's Office, located at 21 Main St, Akron, NY 14001, or by calling 716-542-9636.

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 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 Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is the Murder Creek Reservoir, which is located in the Town of Bennington, NY. The E.P Forrestel Water Treatment Plant is located adjacent to the reservoir, in the Town of Darien Center. Water conveyed from treatment plant is chlorinated and filtered using the coagulation, flocculation, sedimentation, and filtration processes.

The New York State Department of Health (NYSDOH) has completed a source water assessment for the Village of Akron water 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 can move over the land to the reservoir and whether they remain in the reservoir or dissipate. The susceptibility rating is an estimate of the potential for contamination of the source water. It does not mean that the water delivered to consumers is, or will become contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected.

The amount of pasture in the assessment area results in an elevated potential for pesticide, DBP precursor, phosphorus and microbial contamination. No permitted discharges are found in the assessment area. There are no noteworthy contamination threats associated with other discreet contaminant sources. Finally it should be noted that hydrological characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorous and microbial contamination.

While the source water assessment rates our reservoir as being susceptible to microbial contamination, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination. A copy of the assessment can be obtained at the Village office.

FACTS AND FIGURES

Our water system serves roughly 3085 people in the village through 1238 service connections. In 2014 we served 13 industrial accounts, and 35 easement customers living along the transmission line between the Water Plant and the village. The total water produced in 2013 was 159.2 million gallons, of which 152.7 million gallons were consumed by the village. The average amount of water treated each day was 455,407 gallons. Our highest daily production was 679,400 gallons on Feb 17, 2014.

Water customers paid a base charge of \$38.75 for the first 5000 gallons, and \$7.75 per 1000 gallons consumed after that. Bills are mailed quarterly. The average residential cost per year was \$333.00. The national yearly average is approximately \$435.

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, turbidity, 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 drinking water, might 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 Erie County Health Department at 716-858-7660.

Table of Detected Contaminants							
Contaminant	MCL Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity (1)	No	Daily	High: 0.178 Low: 0.047 Avg: 0.097	NTU	N/A (5)	MCL= 0.3	Soil Runoff

Table of Detected Contaminants (continued)

Contaminant	MCL Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Copper	No	9/23/2014	0.59 ⁽²⁾ Range: 0.01 to 0.86	mg/l	1.3	AL = 1.3	Corrosion of household plumbing; erosion of natural deposits.
Total Trihalomethanes	Yes	Quarterly	0.083 avg. ⁽⁴⁾ Range: 0.045– 0.108	ug/l	80	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids	No	Quarterly	0.053 avg. ⁽⁴⁾ Range: 0.009– 0.075	ug/l	60	MCL= 60	By-product of drinking water disinfection needed to kill harmful organisms.
Chlorine	No	Constant	1.40 avg Range: 0.59-2.10	mg/l	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Nitrate	No	12/31/2014	0.07	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits.
Gross alpha	No	12/16/2013	0.35	pCi/l	0	15	Erosion of natural deposits.
Combined radium-226 and radium-228	No	12/16/2013	0.84	pCi/l	0	5	Erosion of natural deposits.
Barium	No	10/28/14	0.027	mg/l	2	2	Discharge of drilling wastes; Erosion of natural deposits.

Notes:

- 1 – 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, readings must be < 0.3 NTU for at least 95% of monthly readings.
- 2 – 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, ten samples were collected at your water system and the 90th percentile value was the second highest value (0.59 mg/l). The action level for copper was not exceeded at any of the sites tested.
- 3 – The level presented represents the 90th percentile of the ten samples collected (0.65 ug/l). The action level for lead was not exceeded at any of the sites tested
- 4 – This level represents the highest locational running annual average calculated from data collected.
- 5 – (N/A)-Not Applicable

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 which, if exceeded, triggers treatment or other requirements which a water system must follow.

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). Compare to 1 minute in two years.

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb). Compare to 1 second in 32 years.

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

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had THM Maximum Contaminant Level violations in 2014 (in the third and fourth quarters). This was due in part to an excessive amount of organics in our raw water. We have reduced our chlorine dose and are making other treatment technique changes to combat this and currently are well within the normal levels. We at the Akron water system test many more parameters than listed here to ensure a safe drinking water.

Although we did not exceed the Action Level, 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 Akron Water System 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?

During 2014, our system was in compliance with applicable State drinking water monitoring and operating requirements. This past year we monitored for disinfection byproducts but failed to provide the Operation Evaluation Level results to the Erie County Health Department within the required time period. This does not pose a threat to the quality of our water supply.

Water department employees strive to provide safe and pleasing drinking water, and work to ensure the reliability of the treatment process. Our water filtration plant was built in 1927, with many updates though the years. The plant is staffed every day and continuously monitored via an automated alarm system.

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. Immune-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;
- ◆ 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 firefighting 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 9-15 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.

SYSTEM IMPROVEMENTS

At the treatment plant: Our chlorine treatment system was upgraded to newer style ejectors and underwent a tubing replacement to ensure its reliability. We had an Open House in May and gave tours of the facility and property. Our water transmission line valves and services were marked with new high visibility signs. A comprehensive mowing and trimming operation took place. Both water filters were drained and cleaned, and a comprehensive filter media replacement project was started.

In the distribution system: We continued our water meter replacement program with new Neptune brand radio read meters. These meters are long lasting, maintenance free devices which enable meter reading without entering the property. Over 132 meters were replaced in 2014, and more will be replaced in 2015. Various leaks were found and repaired, as well as hydrant service and repairs. We flushed dead end lines on a quarterly basis, and performed a comprehensive system wide flush.

Thank you for allowing us at the Village of Akron Water System to continue to provide you and your family with quality drinking water in 2014. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call the Water Plant if you have any questions at 585-547-9410.