

Annual Drinking Water Quality Report

Aqua Copia ----- 2019

#34400V

The Safe Drinking Water Act requires community water systems to provide customers annual reports on the quality of their drinking water. The report is to be distributed for the previous year's testing. This report covers data collected in 2018.

We are very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the water we have delivered to you over the past year. Our goal is to provide to you a safe and dependable supply of drinking water. This report shows our water quality and what it means. Our water meets or exceeds all State and Federal regulations.

Our water sources are three deep-drilled wells. Two wells are located near the pumphouse. The other is located to the north near the Cross Valley storage tank and has been put on emergency status. We have been using the wells near the pump house as much as possible this past year because they provide the best quality water. As you probably know, a deeper well has been drilled very near the old original well. We are currently getting most of our water from the new well but are limiting it when demand is low to optimize water quality.

Aqua Copia routinely monitors for constituents in your drinking water according to Federal and State laws. If you have any questions about this report or concerning your water utility, please contact Matt Dankoff at (360) 668-7781 or Jim Repp at (360) 568-2717. Matt Dankoff took over the operation of the water system in 2003 and Jim Repp of Meadow Lake Water Treatment was hired as an operator in an advisory role to satisfy the requirement to have a Certified Operator.

The following table shows the results of all monitoring for the period of January 1st to December 31st, 2018. Since this system is not required to do all of these tests every year some of the results are from past years. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

Water Conservation

Aqua Copia has meters installed on all connections. This allows us to comply with the Water Use Efficiency Rule enacted by the state legislature in 2007. We are able to reconcile the water produced with that consumed. Monitoring your water use allows us to better account for lost water and identifying those problems that may be contributing to an increase in unnecessary water consumption. We strive to repair any leaks in the system as soon as they become apparent. There were some major leaks this past year contributing to a higher rate of lost water. Some tips for conserving water:

- A little leak can go a long way. Just a slow drip can waste up to 15 to 20 gallons a day! Most leaks are caused by worn washers. Check all the faucets once a year.
- Many washing machines use 40 gallons of water for a load whether you have them stuffed full or with only a couple of socks. Save up for a full load and make your water work more efficiently. Or remember to set your machine for a lesser load if it can be adjusted.
- Wash your car with a bucket of soapy water and use a nozzle to stop the flow of water from the hose between rinses.
- Clean driveways and sidewalks with a broom instead of a hose.

- Check for leaks in outdoor faucets, pipes and hoses.

In this 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.

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 - 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.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 - 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 - The “Goal”(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCL’s allow for a margin of safety.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria	No	0/12		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	No	0/12		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
3. Turbidity (S03)	No	0.25	NTU	n/a	1.0 TT	Soil runoff, oxidized iron or manganese
Radioactive Contaminants						
4. Radium 228 (Well #3)	No	0.48	pCi/l	0	5	Decay of natural and man-made deposits
5. Gross Alpha (Well #3)	No	0.67	pCi/l	0	15	Erosion of natural deposits

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
7. Antimony	No	ND	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic	No	Blend 7.8*	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos		NA	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium	No	ND	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium	No	ND	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium	No	ND	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
13. Chromium	No	ND	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	No	ND From wells	ppm (0.26 Highest Home)	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	No	ND	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	No	ND new well	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	No	ND	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic)	No	ND	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate (as Nitrogen)	No	S01= 1.2	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen)	No	ND	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Selenium	No	ND	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
22. Thallium	No	ND	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
Over 80 mostly man made organic compounds	No	ND	ppb & ppt	varies	varies	Runoff from herbicide and pesticide use
Volatile Organic Contaminants						
23 man made and natural EPA regulated organic compounds	No	ND	ppb	varies	varies	Discharge from factories; leaching from gas storage tanks and landfills
Total HAA's	No	1.0	ppb	0	60	Disinfection byproducts
Total Trihalomethanes	No	1.59	ppb		80	Disinfection byproducts

*Average of quarterly blended samples. Blended water < MCL.

What does this mean?

As you can see by the table we have learned through our monitoring and testing that some constituents have been detected. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Since January 2006, because of the detection of arsenic, we are required to do quarterly monitoring of the arsenic levels in our wells. One of our wells is very low in arsenic and the other is near the new limit. Since we monitor the arsenic levels and are aware that one well contains more arsenic than the other, we have been able to utilize a higher proportion of the better quality well's capacity. The less lawn watering that goes on during the summer the higher proportion of low arsenic water we will have in our system. So far we have been able to blend the low arsenic water with the well water that has higher levels so that the new maximum contaminant level is not exceeded. There are small under-the-sink drinking water systems available designed specifically to lower the levels of arsenic in 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. Aqua Copia 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 thirty seconds to two 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 or at <http://www.epa.gov/safewater/lead>. Our lead/copper tests showed no detectable levels of lead in the homes that were tested in 2017.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Thank you for allowing us to continue providing your family with clean, quality water this year. We ask that all our customers help us protect our water sources, which are at the heart of our community, our way of life and our children's future. Please dispose of all trash and waste fluids in the proper manner and use any pesticides and herbicides sparingly. It is important to understand that when hose connectors do not have backflow prevention devices water can flow back into the system if the system is shut down for any reason. Hoses should not be left connected in this case and certainly not be left lying in a contaminated container such as a pond or barrel of liquid.