

# **Annual Drinking Water Quality Report for 2018**

## **Village of Andover**

**35 E Greenwood St, Andover, NY 14806**

**(Public Water Supply ID# 02-00311)**

### **INTRODUCTION**

To comply with State regulations, the Village of Andover, 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.

If you have any questions about this report or concerning your drinking water, please contact the Department of Public Works, at (607) 478-8452 or (607) 478-8455. 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 meetings are held on the Second Tuesday of each month at 6:00 pm at the Village Office located at 35 East Greenwood St. Andover, NY 14806.

### **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 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 about 1085 customers through 440 service connections. The water source is at least four naturally occurring springs located southwest of the Village in the Town of Andover. The springs produce about 122,000 gallons per day average. Our secondary source consists of a single well, 230 ft. deep that produces about 110 gallons per minute. The well is located in the Village of Andover. The water from the springs and the well is disinfected with gaseous chlorine before entering the distribution system, any water not consumed by our customers is then stored in a 225,000 gallon Natgun concrete reservoir or in our 316,000 gallon glass-lined Aquastore Tank. We currently use AquaPure Z3 corrosion control agent. It is introduced just prior to chlorination at the spring site. The purpose of AquaPure is to control levels of lead and copper in your drinking water and to prohibit discoloration of the water as well as to coat the interior surfaces of the water mains reducing tuberculation.

### **SOURCE WATER ASSESSMENT**

The New York State Department of Health has completed a Source Water Assessment for the Village water system, based on available information. Possible and actual threats to the source of drinking water for our system have been evaluated. The Source Water Assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated.

The Source Water Assessment rates the well as having very high susceptibility to contamination from enteric bacteria, and high susceptibility to contamination from protozoa, petroleum products, industrial solvents, and other industrial contaminants. These ratings are primarily due to the close proximity of the well to three (3) New York State Department of Environmental Conservation (NYSDEC) permitted discharge facilities (large industrial/commercial septic systems) that discharge wastewater into the environment below the surface of the ground, and to one oil/gas well. Also, the fact that the well draws water from an unconfined aquifer contributes to the very high and high susceptibility ratings indicated above. Our drilled well is primarily available for an emergency; for instance, when the natural springs located on Indian Creek cannot produce enough water for the Village. The water from the well is used in short frequencies often, and is routinely tested to meet New York State Department of Health's Drinking Water requirements.

**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, Escherichia coliform, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, asbestos, halo acetic 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, 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 Allegany County Health Department at (585) 268-9250.

**Table of Detected Contaminants**

Contaminant	Violation Yes or No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT, AL, or MFL)	Likely Source of Contamination
Barium (Well)	No	11/2/17	.243	Mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits
Barium (Springs)	No	11/1/2017	.0282	Mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits
Chlorine Residual	No	Jan 2018 – Dec 2018	.10-.80	Mg/L	NA	4	Water additive used to control microbes.
Chloromethane (Springs)	No	11/2/2017	.0009	Mg/L	NA	5	Used in organic chemistry; used as an extractant for greases, oils, and resins; as a solvent in the rubber industry; as a refrigerant, blowing agent and propellant in polystyrene foam production; as an anesthetic; as an intermediate in drug manufacturing; as a food additive, a fumigant and a fire extinguisher
Copper	No	10/25/2018	1.2 (.023-1.6) *see footnote 1	Mg/L	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.

Fluoride (Well)	No	11/2/2017	.3	Mg/L	NA	2.2	Erosion from natural deposits; Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Beta (Springs)	No	11/1/2017	.82 +/- .56	PCi/L	0	4	Decay of natural deposits and man-made emissions
Gross Alpha (Well)	No	9/17/2014	2.72 +/- 1.05	PCi/L	0	15	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	7/19/17	.0026	Mg/L	NA	60	By-product of drinking water disinfection needed to kill harmful organisms.
Lead	No	10/26/2018	.002 (.001-.002) *see footnote 1	Mg/L	0	15	Corrosion of household plumbing systems; Erosion of natural deposits.
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	No	7/19/2017	.0033	Mg/L	NA	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.

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 system that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead or copper values detected in your water system. In this case, the 90th percentile value for lead was .001 mg/L, with the highest detected lead sample was one .002 mg/L. The action level for lead was not exceeded at any of the sample sites. The 90th percentile for copper value was 1.2 mg/L, and the highest detected level was 1.6 mg/L. This was the only sample detected above the state action level.

**DEFINITIONS:**

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water.

**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.

**Action Level (AL):** The concentration of a contaminant 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.

**Milligrams per liter (mg/l):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

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

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS**

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 your drinking water meets health standards. During 2018, we did not complete all monitoring or testing for lead and copper (in the required monitoring period), certain synthetic organics, nitrates, or disinfection byproducts, and therefore cannot be sure of the quality of your drinking water during that time. We received violations from the Health Department for this, but have or will sample appropriately to get our water system back into compliance with the state regulation. We did sample for lead & copper later in 2018, and in 2019 we have already sampled for the synthetic organics, and nitrates. We will sample for disinfection byproducts this summer, when the state accepts the results during a specific monitoring period.

### **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 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 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 about 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, and then check the meter after 15 minutes. If it moved, you have a leak.

### **FACTS AND FIGURES**

The total water produced in 2018 from the springs and well was 44,581,000 gallons. The daily average of water treated and pumped into the distribution system was 122,000 gallons. Our highest single day was 190,000 gallons, recorded on [REDACTED]. The amount of water delivered to customers was about 36 million gallons. Our storage tanks overflowed approximately 5.3 million gallons of water in [REDACTED]. The overflow is metered at the Aquastore glass-lined storage tank, and estimated at the Natgun concrete storage tank. Customer charges \$4.25 per 1,000 gallons of water used with a base charge of \$18.00 per month.

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. KHEOPS, formerly TVGA, has issued a new Preliminary Engineering Report (PER) in an effort to complete the water system upgrades that were previously started in the Village and to address concerns from the Allegany County Department of Health. There are several corrections that have to be made in the PER and it will be used, and is required, for the Applications for funding resources needed to complete the water system upgrades and improvements. Some costs of these improvements may be reflected in the rate structure and further 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.

