

Annual Drinking Water Quality Report for 2015

ARKVILLE WATER DISTRICT
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Public Water Supply ID#1200249

INTRODUCTION

To comply with State and Federal regulations, **ARKVILLE 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 source. During the year 2015 we tested for several constituents. Any detects are listed in the table below. We also did monthly coliform sampling and testing and the results proved to be negative or no detect. 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. *While all required tests were taken, some results did not reach the Health Dept. in a timely manner.*

If you have any questions about this report or concerning your drinking water, please contact Patrick Davis, Town of Middletown Supervisor, at (845) 586-2462. 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 every second Wednesday of each month at the Town Hall in Margaretville from 6:00pm until all business is completed.

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

For your information, the water department has an emergency plan in affect in case of terrorist threat or any other threat would be imminent. This is in accordance with the New York Department of Health and Delaware County Emergency Services.

Our water sources are two drilled wells, one at the site of the Fireman's Pavilion and is 125 feet deep (well #1). This water is chlorinated for disinfection and a polyphosphate is added to raise the pH to make the water less aggressive in order to control the lead and copper at your faucet. The recently developed second well, put in service in March of 2013, is located behind the Railroad station and is 200 feet deep (well#2). This well is also chlorinated for disinfection and also has a polyphosphate added. The untreated water in well #2 contains Arsenic levels that exceed drinking water standards. Because of the elevated arsenic levels in this well, we were required to install an arsenic removal treatment system before the well was allowed to supply any water to our customers. We have a source water protection plan available from our office that provides more information, such as potential sources of contamination.

The NYS DOH has completed a source water assessment for our system, based on available information. Possible and actual threats to the drinking water sources 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 through the subsurface to the wells.

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. While nitrates (and other inorganic contaminants)

were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. The nitrate level in our source is not considered high in comparison with other sources in this area. See section "Are there contaminants in our drinking water?" for a list of contaminants that have been detected.

As mentioned before, our water is derived from two drilled wells. The source water assessment has rated well #1 as having a medium susceptibility to microbials. This rating is due primarily to the close proximity of septic systems and low intensity residential activities within the assessment area. In addition, the well draws from a confined aquifer that likely provides adequate protection from potential contamination. While the source water assessment rates our well as being somewhat susceptible to microbials, 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, including a map of the assessment area, can be obtained by contacting us, as noted below.

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, 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 New York State Health Department at (607) 432-3911.

TEST RESULTS							
Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) Well #1	N	12/18/14	0.66	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Chloride- well #1	N	12/19/13	32.9	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Chloride- well #2	N	12/18/14	46.9	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Barium- Well #1	N	12/19/13	0.085	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Barium- Well #2	N	12/18/14	0.123	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Sodium¹ - well #1	N	12/19/13	22	mg/l	N/A	(See health effects)	Naturally occurring; Road salt; Water softeners; Animal waste.
Sodium¹ - well #2	N	12/18/14	32.5	mg/l	N/A	(See health effects)	Naturally occurring; Road salt; Water softeners; Animal waste

¹ Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total THM	N	9/25/14	0.01428	mg/l	N/A	0.08	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter
Nickel	N	12/19/13	0.005	mg/l	0.1	0.1	Nickel is found in many ores as sulfides, arsenides, antimonides & oxides or silicates; chief sources include chalcopyrite; others are pyrrhotite, pentlandite, garnierite, niccolite, millerite.
Arsenic* Well #2 Finished Water	N	Quarterly	.0028	mg/l	0	0.01	Erosion of natural deposits; runoff from orchards, runoff from glass & electronic production wastes
Manganese	N	12/19/13	0.005	mg/l	N/A	300 ug/l	Naturally occurring; Indicative of landfill contamination
Total HAA	N	9/25/14	0.0034	mg/l	N/A	0.06	By-product of drinking water disinfection needed to kill harmful organisms.
Lead	N	9/26/13	90 th %= 0.003	mg/l	0	AL 0.015 mg/l	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	N	9/26/13	90 th %= 0.249	mg/l	1.3	AL 1.3 mg/l	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Iron- well #1	N	12/19/13	0.009	mg/l	N/A	0.3	Naturally occurring.
Iron- well #2	N	12/18/14	0.005	mg/l	N/A	0.3	Naturally occurring.
Zinc- well #1	N	12/19/13	0.144	mg/l	N/A	5	Naturally occurring.
Zinc- well #2	N	12/18/14	0.003	mg/l	N/A	5	Naturally occurring.
Odor	N	12/19/13	4	TON			Numerous things can attribute an odor. i.e. organics, treatment methods, etc.
Sulfate- well #2	N	12/18/14	3.7	mg/l	N/A	250	Sulfate is a substance that occurs naturally in drinking water.

Although the above Nitrate detect is no-where near the MCL of 10 mg/l we have chosen to publish the health effects language for your information.

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.

***The raw water from well #2 does contain a level of Arsenic that exceeds the MCL. We are treating that supply for Arsenic. Although we may show a detect in our treated water, the level of Arsenic, in the treated water, has never exceeded the MCL set by the EPA or the Health Dept. Our treatment has proven effective for the removal of Arsenic.**

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.

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.

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).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion - ppq).

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

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2015, our system was in compliance with all applicable State and Federal drinking water requirements, although some samples were received late.

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.
- ♦ *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.*

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. 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. Please call our office if you have questions.