

ANNUAL WATER QUALITY REPORT
2016
TOWN OF MARTINSBURG
GLENFIELD WATER DISTRICT
Public Water System ID#2402363
Prepared by: Mary Kelley, Town Clerk
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Introduction

To comply with the Safe Drinking Water Act, the Town of Martinsburg 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, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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 Mary Kelley, Town Clerk, 376-2299 or the Highway Department at 376-2309. 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 the third Wednesday each month at 7:00 P.M., at the Town Hall, 5405 Cemetery St, Martinsburg, N.Y.

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*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- *Radioactive contaminants*, which are naturally occurring.
- *Organic contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems.

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.

Our water system serves approximately 128 households and businesses through 179 service connections. Your water comes from 2 municipal wells sunk about 200 feet into an underground source of water called the Low Plain Aquifer. These wells are located off Mill St., in the Hamlet of Glenfield. The pump house and chlorination plant are also located at this site. A 260,000 gallon storage tank is located on the Glendale Road. The Town owns the land around these wells and restricts any activity that could contaminate them. After the water comes out of the well system, chlorine is added to protect you against microbial contaminants. No fluoride is added to the water.

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, is 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 New York State Department of Health, Watertown Office, 317 Washington St., Watertown, New York 13601, 315-785-2277.

TEST RESULTS

CONTAMINANT

Violation Y or N	Date of Sample	Level Detected	Unit Measurement	MCL	Likely Source of Contamination
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Radioactive Contaminants						
Gross alpha activity (including radium-226, but excluding radon and uranium)	No	09/02/2015	1.35	pCi/L	15	Erosion of natural deposits.
Radium - 226	No	09/02/2015	0.03	pCi/L	5	Erosion of natural deposits
Radium – 228	No	09/02/2015	0.37	pCi/L	5	Erosion of natural deposits

Inorganics						
Barium	No	10/07/2014	.045	Ug/L	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Radioactive Contaminants						
Beta particle and photon Activity from man-made Radionuclides	No	03/27/2009	3.3	pCi/L	4	Erosion of natural deposits.
Nitrogen, Nitrates	No	12/09/2016	1.1	mg/l	10	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Chloride	No	01/09/2013	Well #1 141	mg/l	250	Naturally occurring.
Sulfate	No	01/09/2013	Well #1 13.9	mg/l	250	Naturally occurring.

Iron	No	01/09/2013	Well #1 .041 Well #2 .039	mg/l	.3	Naturally occurring.
Manganese	No	01/09/2013	Well #1 10 Well #2 .068	mg/l	n/a	Naturally occurring.
Strontium	No	01/09/2013	Well #1 .530 Well #2 .980	mg/l	n/a	Naturally occurring.
Zinc	No	01/09/2013	Well #1 .110 Well #2 .013	mg/l	n/a	Naturally occurring.
Tin	No	01/09/2013	Well #1 .024 Well #2 .025	mg/l	n/a	Naturally occurring.
Calcium	No	01/09/2013	Well #1 120 Well #2 150	mg/l	n/a	Naturally occurring.
Calcium Hardness	No	01/09/2013	Well #1 310 Well #2 380	mg/l	n/a	Naturally occurring.
Potassium	No	01/09/2013	Well #1 2.0 Well #2 2.0	mg/l	n/a	Naturally occurring.
Magnesium	No	01/09/2013	Well #1 10 Well #2 12	mg/l	n/a	Naturally occurring.
Sodium	No	01/09/2013	Well #1 35 Well #2 63	mg/l	n/a	Naturally occurring.
Fluoride	No	09/24/2014	0.4	mg/l	2.2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Selenium	No	01/09/2013	Well #2	Ug/L	50	Discharge from petroleum and metal refineries; erosion and natural deposits. Discharge from mines.
Microbiological Contaminants						
Turbidity*	No	01/09/2013	Well #1 0.08	N.T.U	5	Soil run off.
PH	No	01/09/2013	Well #1 7.99		6-9	
Alkalinity	No	01/09/2013	Well #1 240	mg/l	n/a	
Color	No	01/09/2013	Well #1 1	Units	15	
Solids	No	01/09/2013	Well #1 585	mg/l	n/a	
DisinfectionByProducts						
Haloacetic Acids (mono-, di-, and trichloroacetic acid and mono- and dibromoacetic acid)	No	08/12/14	5	ug/l	60	By-Product of drinking water chlorination.
Total Trihalomethanes (TTHMs-chloroform, bromodichloromethane dibromochloromethane and bromoform)	No	08/12/14	24.1	ug/l	80	By-Product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

*Turbidity is a measure of the cloudiness of the water and has no health effects. We monitor it because it's a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

In December, 2014 we collected and analyzed 5 samples for lead. The action level for lead was not exceeded at any sites tested. 90th percentile lead – 3.8 ppb. Lead limit is 15.

The source of lead in drinking water may come from corrosion of household plumbing systems or erosions of natural deposits.

In December, 2014 we collected and analyzed 5 samples for copper. The action level for copper was not exceeded at any sites tested. 90th percentile copper – 144 ppb. Copper limit is 1300.

The source of copper in drinking water may come from corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Monthly tests for coliform were negative.

As you can see by the table, our system had no violations, but we have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

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 are 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.

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

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 liquid in one billion parts of liquid (parts per billion-ppb).
Nephelometric Turbidity Unit (N.T.U.): A measure of particles in the water.

Do I need to take special precautions?

Although our drinking water met or exceeded state and federal regulations, 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 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).

Water Rates

The water rate is \$2.46 per 1000 gallons for operation and maintenance. A fixed rate of \$120.00 per year, per hook-up, is assessed for debt service. Water bills are sent April 1 and October 1 and unpaid balances are subject to a 10% penalty after 30 days. If bill remains unpaid by the first week in November, gross amount is added to the January tax roll.

Indoor Water Conservation Tips

General

- Never pour water down the drain when there may be another use for it. Use it to water your indoor plants and garden.
- Repair dripping faucets by replacing washers. One drop per second wastes 2,700 gallons of water per year!
- Check all plumbing for leaks. Have leaks repaired by a plumber.
- Retrofit all household faucets by installing aerators with flow restrictors.
- Install an instant hot water heater on your sink.
- Insulate your water pipes to reduce heat loss and prevent them from breaking.
- Install a water-softening system only when the minerals in the water would damage your pipes. Turn softener off while on vacation.
- Choose appliances that are more energy and water efficient.

Bathroom

- Consider purchasing a low-volume toilet that uses less than half the water of older models.
- Install a toilet displacement device to cut down on the amount of water needed to flush. Place a one-gallon plastic jug of water into the tank to displace toilet flow (do not use a brick, it may dissolve and loose pieces may cause damage to the internal parts.) Be sure installation does not interfere with the operating parts.
- Replace showerhead with an ultra-low-flow version.
- Place a bucket in the shower to catch excess water for watering plants.
- Avoid flushing the toilet unnecessarily. Dispose of tissue, insects and other similar waste in the trash rather than the toilet.
- Avoid taking baths – take short showers – turn on water only to get wet and lather and then again to rinse off.
- Avoid letting the water run while brushing your teeth, washing your face or shaving.

Kitchen

- Operate automatic dishwashers only when they are fully loaded. Use the “light wash” feature, if available, to use less water.
- Hand wash dishes by filling two containers – one with soapy water and the other with rinse water containing a small amount of chlorine bleach.
- Clean vegetables in a pan filled with water rather than running water from the tap.
- Start a compost pile as an alternate method of disposing of food waste or simply dispose of food in the garbage. (Kitchen sink disposals require a lot of water to operate properly.)
- Store drinking water in the refrigerator. Do not let the tap run while you are waiting for water to cool.
- Avoid wasting water waiting for it to get hot. Capture it for other uses such as plant watering or heat it on the stove or in a microwave.
- Avoid rinsing dishes before placing them in the dishwasher; just remove large particles of food. (Most dishwashers can clean soiled dishes very well, so dishes do not have to be rinsed before washing.)
- Avoid using running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave oven.

Laundry

- Operate automatic clothes washers only when they are fully loaded or set the water level for the size of your load.

Outdoor Water Conservation Tips

- Check your well pump periodically. If the automatic pump turns on and off while water is not being used, you have a leak.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need water as frequently and usually will survive a dry period without watering. Small plants require less water to become established. Group plants together based on similar water needs.
- Install irrigation devices that are the most water efficient for each use. Micro and drip irrigation and soaker hoses are examples of efficient devices.
- Use mulch to retain moisture in the soil. Mulch also helps control weeds that compete with landscape plants for water.
- Avoid purchasing recreational water toys that require a constant stream of water.
- Avoid installing ornamental water features (such as fountains) unless they use recycled water.

Car Washing

- Use a shut-off nozzle that can be adjusted down to a fine spray on your hose.
- Use a commercial car wash that recycles water. If you wash your own car, park on the grass so that you will be watering it at the same time.

Lawn Care

- Avoid over watering your lawn. A heavy rain eliminates the need for watering for up to two weeks. Most of the year, lawns only need one inch of water per week.
- Water in several short sessions rather than one long one, in order for your lawn to better absorb moisture.
- Position sprinklers so water lands on the lawn and shrubs and not on paved areas.
- Avoid sprinklers that spray a fine mist. Mist can evaporate before it reaches the lawn. Check sprinkler systems and timing devices regularly to be sure they operate properly.
- Raise the lawn mower blade to at least three inches or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system and holds soil moisture.
- Plant drought-resistant lawn seed.
- Avoid over-fertilizing your lawn. Applying fertilizer increases the need for water. Apply fertilizers that contain slow-release, water-soluble forms of nitrogen.
- Use a broom or blower instead of a hose to clean leaves and other debris from your driveway or sidewalk.
- Avoid leaving sprinklers or hoses unattended. A garden hose can pour out 600 gallons or more in only a few hours.

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. Please call our office if you have any questions.