

# Annual Drinking Water Quality Report for 2017

## Town of Yorkshire Water District #2

82 S. Main St, P.O. Box 6

Delevan, N.Y. 14042

Public Water Supply ID#NY0430044

### INTRODUCTION

To comply with State and Federal regulations, Town of Yorkshire is issuing this annual 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 resources. 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 statement. 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 **Larry Groves, Water Commissioner, (716) 474-7568** or **Dan Heineman, Water Operator, (716) 496-5037**. 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 Monday of each month at 7:00 P.M. in the Yorkshire Town Hall.**

### WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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 that 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 is supplied by the Village of Delevan which has two water sources. The first is a number of springs located on Village property just to the west of the Village off Worden Road. This water is collected through sixteen collection structures and flows by gravity to a 50,000 gallon concrete reservoir then on to a new treatment building. The second source is a 370' deep well located adjacent to the storage tank on Worden Road. The well water is pumped to the treatment building. In 2012 the well was designated as an emergency source only. All water entering the treatment building is filtered, disinfected by injection of gaseous chlorine and an ultraviolet light, then flows to a 500,000 gallon storage tank where it enters the distribution system.

Yorkshire Water District #2 serves approximately 70 people through 19 service connections.

In 2003, the NYS DOH conducted a partial source water assessment for our (the Village of Delevan's) water system, based on available information. Possible and actual threats to the drinking waters sources were 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 wells and springs. The susceptibility rating is an estimate of the potential contamination of the source water. It does not mean that the water delivered to consumers is, or will become contaminated. See section "ARE CONTAMINANTS IN OUR DRINKING WATER?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As we mentioned before, our water is purchased from the Village of Delevan. The source water assessment was done for the well only. For the well, the susceptibility to contamination was rated as: medium from enteric bacteria, nitrates and protozoa. The ratings for this source are due to the proximity to pasture land and permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government). While the assessment rates our source as being susceptible to enteric bacteria, 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.

A copy of this assessment, including a map of the assessment area, can be obtained by contacting us, as noted above.

## ARE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we and the Village routinely test your drinking water for numerous contaminants. These contaminants include: coliform bacteria, 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 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 visiting the EPA website (<http://www.epa.gov/your-drinking-water>) or by calling the EPA's Safe Drinking Water Hotline (800-426-4791), or the Cattaraugus County Health Department at 716-701-3386. Much information is also available directly from the EPA website: <https://www.epa.gov/dwstandardsregulations>.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Disinfectant</b>							
Chlorine Residual	No	2017	Avg. = .44 (.12 - .70)	mg/l	n/a	MRDL = 4	Water additive used to control microbes.
<b>Microbiological Contaminants</b>							
Total Organic Carbon – Raw	No	2017	Avg. = 0.65 (0.5 – 0.8)	mg/l	n/a	TT	Naturally present in the environment.
Turbidity – Filtered <sup>1</sup>	No	1/17/17	0.11	NTU	n/a	TT = ≤ 5.0 NTU	Soil runoff.
Turbidity – Filtered <sup>1</sup>	No	2017	100% < 1.0	NTU	n/a	TT = 95% of samples ≤ 1.0 NTU	Soil runoff.
Distribution Turbidity <sup>2</sup>	No	11/2017	Highest Monthly Avg. = .069	NTU	n/a	TT = ≤ 5.0	Soil runoff.
<b>Inorganic Contaminants</b>							
Barium	No	1/27/15	92	ug/l	2,000	MCL = 2,000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper <sup>3</sup> (Village and Town combined)	No	9/27/16 to 9/28/16	87 (35 - 220)	ug/l	1,300	AL = 1,300	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
Lead <sup>4</sup> (Village and Town combined)	No	9/27/16 to 9/28/16	2 (ND - 170)	ug/l	0	AL = 15	Corrosion of household plumbing; erosion of natural deposits
Nitrate	No	2017	Avg. = 4.08 (2.96 – 5.84)	mg/l	10	MCL = 10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
<b>Disinfection By-products</b>							
Haloacetic Acids	No	8/8/17	4.7	ug/l	n/a	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes	No	8/8/17	30	ug/l	n/a	MCL = 80	By-product of drinking water disinfection needed to kill harmful organisms.

### Notes:

<sup>1</sup> - 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. State regulations require that turbidity must always be below 5.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 1.0 NTU. The levels recorded were all within the acceptable range allowed and did not constitute a treatment technique violation.

- 2 - Our highest monthly average distribution turbidity measurement of 0.069 NTU occurred in November. This value is below the turbidity standard of 5 NTU assigned to our system.
- 3 - The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> 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 90<sup>th</sup> percentile value was the second highest value, 87 ug/l. The action level for copper was not exceeded at any of the sites tested.
- 4 - The 90<sup>th</sup> percentile level for lead was 2 ug/l. One of the ten sites exceeded the action level of 15 ug/l.

**Definitions:**

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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.

**Micrograms per liter (ug/l):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Not Detected (ND):** Laboratory analysis indicates that the constituent was not present.

**Treatment Techniques (TT):** A required process intended to reduce the level of a contaminant in drinking water.

## **WHAT DOES THIS INFORMATION MEAN?**

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. Although nitrate was detected below the MCL, it was detected at 5.84 mg/l on 3/22/17 which is greater than one-half of the MCL. Therefore, we are required to present the following information on nitrate in drinking water:

“Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.”

It should also be noted that the action level for lead was exceeded in one of the samples collected. 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 Village of Delevan is responsible for providing high quality drinking water, but cannot control the variety of materials used in private home 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 home’s plumbing, 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.cdc.gov/parasites/water.html>.

## **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 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 SAVING WATER IS IMPORTANT**

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 droughts and helps 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 or more a day from one of these, otherwise invisible, toilet leaks. Fix it and you save more than 30,000 gallons a year.

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this past 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 the community, our way of life and our children's future. Please call our office if you have questions.