Annual Drinking Water Quality Report for 2018
Holland Water District #1
47 Pearl St. Holland N.Y. 14080
(Public Water Supply ID#1410126)

INTRODUCTION

To comply with State regulations Holland 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 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 Jason Simmons, Holland Water Department @ 716-537-9443. 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, held in the Town Hall on the second Wednesday of each month at 8:00 pm.

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 Departments 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 1580 customers through 380 service taps. We have two wells that we are using now, the first is located on Water Street and the second is located on Legion Drive. The Legion drive well was put into service in May of 2018. This is a bedrock well that is 100 foot deep and this well produces over 150 gallons a minute. The chlorine is added using diaphragm pumps by injection into the water before it is pumped into the distribution system. The Water street well produces 135 gallons a minute, located in the Hamlet. Our source is deep bedrock well, with 50 feet of clay cap, protected by a masonry building. The water is aerated in a cascade tower to remove sulfur gas, ortho-phosphate is added, and it is disinfected with the injection of chlorine before it is pumped into the distribution system. The average water rate is $4.38 per thousand gallons, with a quarterly capital improvement charge of $24.30.

The New York State Department of Health (NYSDOH) has completed a source water assessment for the Town of Holland water system, based on available information. Possible and actual threats to this drinking water source 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. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected.

Our water is derived from three drilled wells. The source water assessment has rated these wells as having a medium high susceptibility to enteric bacteria, enteric viruses, cations/anions, halogenated solvents, petroleum products, herbicides/pesticides, other industrial organics, nitrates, and protozoa. These ratings are due primarily to the close proximity of pastures and permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) to the wells. Also, the ratings are based on the assumption that the wells draw greater than 100 gallons per minute from the unconfined aquifer.

While the source water assessment rates our well as being susceptible to microbial contamination, 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 microbiological contamination. A copy of the assessment, including a map of the assessment area, can be obtained at the Town office.

In 2018 Holland Water Department pumped 41,595,000 gallons at our Water Street pumping station. The Legion drive pumping station pumped 592,000 gallons. Some of this water is used for flushing water mains, fighting fires, training firefighters, plant processes, equipment and hydrant testing and some of this water was lost due to leaks. 30,117,200 gallons of water were sold to customers.

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, inorganic compounds, nitrate, 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 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 Erie County Health Department at 716-961-6800 fax 716-961-6880.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit of Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Lead and Copper							
Lead	No	9/20/16	1.8 ND-31.7 Note 1	ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No	9/20/16	0.260 0.043-0.400 Note 2	mg/l	1.3	AL=1.3	Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives.

Table of Detected Contaminants (continued)

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Ave/Max) (Range)	Unit of Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely source of Contamination
Disinfectant							
Chlorine residual	No	various	0.58-1.00	mg/l	N/A	MRDL=4	Water additive used to control microbes
Principal Inorganic Contaminants							
Nitrate Well 2 Note 6	No	5/2/18	0.05	mg/l	10	10	Run off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium Well 1 Note 6	No	6/29/16	1680	ug/l	2000	2000	Discharge of drilling waste. Erosion of natural deposits
Barium Well 2 Note 6	No	7/3/18	853	ug/l	2000	2000	Discharge of drilling waste. Erosion of natural deposits
Fluoride – Well2 Note 6	No	7/3/18	0.12	mg/l	NA	2.2	Erosion of natural deposits; Water additive that promotes strong teeth.
Secondary Inorganic Contaminants							
Iron - Well 1 Note 6	No	7/3/18	240	ug/l	NA	300	Naturally occurring.
Iron - Well 2 Note 6	No	8/7/18	380 Note 4	ug/l	NA	300	Naturally occurring.
Manganese - Well 1 Note 6	No	11/1/18	60	ug/l	NA	300	Naturally occurring; Indicative of landfill contamination.
Manganese - Well 2 Note 6	No	8/7/18	34 Note 4	ug/l	NA	300	Naturally occurring; Indicative of landfill contamination.
Sodium – Well 2	No	10/2/18	15.1	mg/l	NA	Note 5	Naturally occurring; Road salt; Water softeners; Animal waste.
Chloride – Well 2	No	10/2/18	23.5	mg/l	NA	250	Naturally occurring or indicative of road salt contamination.
Color – Well 2	No	5/16/18	11	units	NA	15	Natural color may be caused by decaying leaves, plants, and soil organic matter.

Table of Detected Contaminants (continued)

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Ave/Max) (Range)	Unit of Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely source of Contamination
Principal Organic Contaminants (Well 2- Legion Dr.)							
Chloromethane	No	8/7/18	1.1	ug/l	NA	5	Used as an extractant for greases, oils, and resins; as a solvent in the rubber industry; as a refrigerant, as a food additive, and a fire extinguisher.
Chloroethane	No	5/16/18	0.63	ug/l	NA	5	Sources include inadvertent formation during chlorination treatment, and formation via microbial degradation of other chlorinated solvents.
Bromomethane	No	8/7/18	0.63	ug/l	NA	5	Used to kill a variety of pests; used to make other chemicals or as a solvent to get oil out of nuts, seeds, and wool.
Radioactive Contaminants							
Gross Alpha (including Radon and Uranium) - Well 1 (Water St.)	No	6/1/16	3.6	pCi/L	0	15	Erosion of natural deposits
Combined Radium - 226 & 228 - Well 1 (Water St.)	No	6/1/16	1.08	pCi/L	0	5	Erosion of natural deposits
Gross Alpha (incl. Radon and Uranium) - Well 2 (Legion Dr.)	No	5/16/18	2.99	pCi/L	0	15	Erosion of natural deposits
Combined Radium – 226 & 228 - Well 2 (Legion Dr.)	No	5/16/18	1.73	pCi/L	0	5	Erosion of natural deposits
Disinfection Byproducts							
Total Trihalomethanes (TTHM) – chloroform, bromodichloro-methane, dibro-mochloromethane, and bromoform	No	8/8/18	2.14	ug/L	80	N/A	Byproduct of drinking water disinfection needed to kill harmful organisms.
Haloacetic Acids (HAA5) - mono-, di-, and trichloro-acetic acid, and mono-, and dibromoacetic acid	No	8/8/17	0.72	ug/l	60	N/A	By product of drinking water disinfection needed to kill harmful organisms

Notes:

1 - The level presented represents the 90th 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 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In this case 10 samples were collected from your water system and the 90th percentile was 1.8 ug/l. All samples were between ND and 31.7 ug/l, as noted in the table. The action level for lead was exceeded at one of the sites tested.

2 - The level presented represent the 90th percentile of the 10 sites tested. A percentile is value on a scale of 100 that indicated the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case 10 samples were collected from your water system and the 90th percentile was 0.260 mg/l. All samples were between 0.043 and 0.400 mg/l as noted in the table. The action level of copper was not exceeded at any of the sites tested.

3 - At the Legion Drive Well all tested contaminants were under the MCL.

4 - The sum of iron and manganese shall be less than 500 ug/l.

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

6 - Well 1 is the Water Street well, and Well 2 is the Legion Drive well.

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.

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.

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).

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table our system had no violations. We have learned through our operating and monitoring requirements that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

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. Holland Water District 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 30 seconds to 2 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We did have two violations in 2018. The annual water quality report certificate was not sent in by September 1st. The form was filled out after the date and submitted to the ECDOH, but this was a reporting violation. The second violation was a monitoring violation for not testing for haloacetic acids when trihalomethanes were analyzed.

The Town of Holland permit was approved for the Legion drive well in April of 2018. We currently are running this well on a limited basis. This well is serving as a backup to the water street well at this present time. We are working on additional filtration for this pump station; hopefully it will be completed in 2019 and then this will be our primary well.

This ANNUAL WATER QUALITY REPORT is displayed @ www.townofhollandny.com

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 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 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.

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. Please call our office @ 716-537-9443 if you have any questions.