

**2018**  
***Annual Drinking Water Quality Report***  
**Town of Hannibal Water District**  
**C/O 824 County Route 34 - Drawer B - Hannibal NY 13074**  
**Public Water Supply ID # 3730101**

To comply with State and Federal regulations, the operators of the Town of Hannibal Water public water system will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your awareness and understanding of drinking water, and the need to protect our drinking water sources. 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.

Last year was the twelfth year of operation for the water district. During this period, we purchased water from the Onondaga County Water Authority (OCWA) and provided additional chlorine at the Town line. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standards.

If you have any questions about this report or concerning your drinking water, please contact Duane Shepard at (315) 564-6037. We want you to be informed about your drinking water. You are welcome to attend any monthly Town Board meetings which are held on the second Thursday of each month at 7:00 PM at the Town Hall at 824 County Route 34.

### **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 (bacteria and viruses); inorganic contaminants (salts and metals); pesticides and herbicides; organic chemical contaminants (from petroleum products); and radioactive contaminants (naturally occurring or from mining activities). 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 FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **FACTS & FIGURES**

Our water system is planned to serve approximately 2,190 people via approximately 730 service connections. The source of the water is Lake Ontario. The water is pumped to one (1) 300,000-gallon storage tank. The water is disinfected with liquid sodium hypochlorite (chlorine) using an injection pump at the pump house located at the Town line on State Route 104 prior to delivery to users.

The New York State Department of Health has evaluated the Great Lakes' watershed to susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the following paragraphs. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for OCWA.

The Great Lakes' watershed is exceptionally large & too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies which use these sources include: storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels- intake clogging and taste and odor problems). This summary is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact water quality at the OCWA intake.

This assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for pesticide contamination. Non-sanitary wastes & other discrete sources may also increase contamination potential. OCWA provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

## ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As State regulations require, we test your drinking water for numerous contaminants. These contaminants include: total coliform, e-coli, inorganic compounds, nitrate, nitrite, volatile organic compounds, total trihalomethanes, radioactive contaminants, and synthetic organic compounds. 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

In 2017 we tested for disinfection byproducts (including trihalomethanes & haloacetic acids) and total coliform bacteria. All microbiological samples were satisfactory. The table below depicts which compounds were detected in your drinking water. It includes data from sampling done by the OCWA also. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of the data in this report, though representative, is more than a year old. The date of sampling is included for each detected compound. 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 **Oswego County Health Department at (315) 349-3557**.

### TEST RESULTS

Contaminant	Violation Y/N	Date of Sample	Level Detected (Average/Result) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL)	Likely Source of Contamination
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Inorganic Contaminants							
<b>Copper*</b> 10 Locations within WD 90%	No	July 2017	280 ug/l (16 - 320)	ppb	1300 ug/l	AL= 1300 ug/l	Corrosion of household plumbing systems, erosion of natural deposits
<b>Lead*</b> 10 locations within WD 90%	No	July 2017	1.5 ug/l (1 - 1.7)	ppb	N/A	AL=15.0 ug/l	Corrosion of household plumbing systems, erosion of natural deposits
<b>Aluminum**</b>	No	March, September 2018	.084 mg/l (.053 - .116)	ppm	N/A	N/A	Erosion of natural deposits; Residual aluminum may be from a chemical used in the treatment process.
<b>Barium**</b>	No	March, September 2018	.019 mg/l (.018 - .020)	ppm	2 mg/l	2 mg/l	Erosion of natural deposits.
<b>Calcium**</b>	No	March, September 2018	33.2 mg/l (32.7 - 33.7)	ppm	N/A	N/A	Naturally occurring.
<b>Chloride**</b>	No	March,	27.9 mg/l	ppm	N/A	250 mg/l	Naturally occurring; Road salts.

		September 2017	(26.0 – 29.9)				
<b>Chromium**</b>	No	March, September 2017	.75 ug/l (ND – 1.0)	ppb	100 ug/l	100 ug/l	Erosion of natural deposits
<b>Copper**</b>	No	March, September 2018	.004 mg/l (.003 - .005)	ppm	N/A	AL = 1.3	Erosion of natural deposits; Leaching from wood preservatives.
<b>Fluoride**</b> (Sampled daily in finished water by OCWA)	No	2018	.70 mg/l (.65 - .85)	ppm	N/A	2.2 mg/l	Erosion of natural deposits; Water additive that promotes strong teeth; Discharges from fertilizer and aluminum factories.
<b>Magnesium**</b>	No	March, September 2018	8.92 mg/l (8.88 – 8.96)	ppm	N/A	N/A	Naturally occurring
<b>Nickel**</b>	No	March, September 2018	.68 ug/l (.68 - .68)	ppb	N/A	N/A	Erosion of natural deposits

<b>Nitrate (as Nitrogen)**</b>	No	March, September 2018	.26 mg/l (.24 - .28)	ppm	10 mg/l	10 mg/l	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Sodium***</b>	No	March, September 2018	17.5 mg/l (16.8 – 18.3)	ppm	n/a	n/a	Naturally occurring; runoff from road salt
<b>Sulfate**</b>	No			ppm	N/A	2200 ug/l	Naturally occurring

		March, September 2018	24.1 mg/l (23.0 – 25.2)				
<b>Zinc</b>	No	March, September 2017	.01 mg/l (ND - .01)	ppm	N/A	5 mg/l	Naturally occurring; Mining waste
<b>Radionuclides**</b>							
<b>Alpha Emitters</b>	No	2018	.335 pCi/l	pCi/l	0	15	Erosion of natural deposits
<b>Beta Emitters</b>	No	2018	1.63 pCi/l	pCi/l	0	50	Decay of natural deposits and man-made emissions
<b>Radium-226</b>	No	2018	.404 pCi/l	pCi/l	0	5	Erosion of natural deposits
<b>Total Uranium</b>	No	2018	.356 pCi/l	pCi/l	0	30	Erosion of natural deposits
<b>UCMRs****</b>							
<b>Chlorate</b>	No	2017	183 ug/l	ppb	N/A	N/A	Agricultural defoliant or desiccant; disinfection byproduct; used in production of chlorine dioxide
<b>Chromium-6</b>	No	October 2018	.070 ug/l	ppb	N/A	N/A	Naturally occurring element; used in making steel and other alloys; manufacturing chrome plating, dyes, pigments, leather tanning, and wood preservation.
<b>Molybdenum</b>	No	2015	1.1 ug/l	ppb	N/A	N/A	Naturally occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
<b>Strontium</b>	No	2015	167 ug/l	ppb	N/A	N/A	Naturally occurring element; used in production of cathode ray tubes
<b>Vanadium</b>	No	2015	0.2 ug/l	ppb	N/A	N/A	Naturally occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
<b>Disinfection By-products</b>							
<b>Total Trihalomethanes (TTHMs)</b> 1 Location	No	2018	46.5 ug/l Range (36.7 – 61.7)	ppb	N/A	80 ug/l	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
<b>Haloacetic Acids (HAAs)</b> 1 Location	No	2017	9.5 ug/l Range (8.6 – 11.6)	ppb	N/A	60 ug/l	By-product of drinking water chlorination.

## Notes:

- \* The levels presented for copper and lead represents the 90<sup>th</sup> percentile of the 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 value is equal to or greater than 90% of the values detected in your water system. In this case as either 3 or 4 samples were collected and the 90<sup>th</sup> percentile value was the second highest value. The action levels for copper and lead were not exceeded at any of the sites tested. Therefore, our system meets corrosion control treatment, source water treatment and lead service line requirements.
- \*\* The levels for these compounds were provided by OCWA as the water supplier for the Town of Hannibal.
- \*\*\* Water containing more than 20 mg/l of sodium should not be used for drinking by persons on severely restricted sodium diets.
- \*\*\*\* Unregulated Contaminant Monitoring Rule (UCMR) samples are collected periodically by OCWA as required by the Environmental Protection Agency (EPA) for contaminants that are suspected to be in drinking water that do not have health-based standards set under the Safe Drinking Water Act (SDWA).

### **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** The Maximum Allowed (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal** The (MCLG) is 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.

**Non-Detects (ND)** Laboratory analysis indicates that the tested compound is not present in the sample.

**Parts per million (ppm) or Milligrams per liter (mg/l)** Corresponds to one part of liquid in one million parts of liquid (parts per million ppm). Or one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) or Micrograms per liter (ug/l)** Corresponds to one part of liquid in one billion parts of liquid (parts per billion ppb). Or one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

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

As you can see by the table, our system had no violations during 2018. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. We will continue to collect samples from the distribution system as required by New York State regulations.

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

During 2018, our system did not have any violations related to operation of the water system.

## INFORMATION FOR NON ENGLISH-SPEAKING RESIDENTS

### Spanish

Este informado continece information may important sober us ague beer. Tradúzcalo ó hable con alguien que lo entienda bien.

### French

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

## DO I NEED TO TAKE PRECAUTIONS? IS OUR WATER SAFE FOR EVERYONE?

Although our drinking water met or exceeded state and federal regulations, it should be noted that some people may be more vulnerable to contaminants 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 about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia, and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). Please note that testing of the water at this system has shown that this water is suitable for drinking purposes, and contains very low amounts of contaminants and should not pose any health risks.

### 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 several 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 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.

## CLOSING

Thank you for allowing us to continue providing your family with clean, quality 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 fee structure we charge. Rate adjustments may be necessary in order to address improvements. We ask that all our customers help us protect our water sources and conserve water, which are the heart of our community. Call our office if you have questions.