

**Drinking Water Quality Report Annual for 2017**  
**Village of Chester**  
**47 Main St**  
**Chester N.Y. 10918**  
**Public Water Supply ID #3503524**

### Introduction

To comply with State and Federal regulations, The Village of Chester 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. This report provides an overview of last years 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 Gary Green at (845) 469-2388, between the hours of 9am and 3pm Monday through Friday. We want you to be informed about your drinking water. If you want to learn more, please call our office and we will discuss your questions personally. The Village of Chester Board meets the second Monday of each month except April, which is the first Monday.

### Where your water comes from

1. Our main source of water is a surface water source. The water that enters the filter plant is treated with Soda Ash after filtration for corrosion control by raising the P.H. of the water; chlorine is added to our water as a disinfectant.

2. Our secondary source is a ground water source. The well water is treated with ESC-532 to treat iron & manganese in the water. We also treat the well water with Chlorine as a disinfectant.

### Facts & Figures

1. In 2017 we produced 168,156,000 gallons of water for a daily average of 460,701 GPD.
2. Our water Audit for 2017 showed unaccounted for water amount of only 14.0%
3. The Village of Chester water distribution system has 29 miles of piping and 1296 meters.

<b>The water fees for 2017 are:</b>	Next	0 to 999,000	Gallons per billing period @	\$ 4.65	Per 1,000 gallons
	Excess over	1,000, 000	Gallons per billing period @	\$ 5.65	Per 1,000 gallons
<b>For out of Corp. users:</b>	Next	0 to 999,000	Gallons per billing period @	\$ 7.15	Per 1,000 gallons
	Excess over	1,000,000	Gallons per billing period @	\$ 8.15	Per 1,000 gallons

**CHESTER VILLAGE**  
**NY3503524**

**Source Water Assessment Summary**

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source was evaluated. The state source water assessment includes a 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 "Table of Detected Contaminants" 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 mentioned before, our water is derived from two drilled wells. The source water assessment has rated these wells as having a medium to medium high susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of SPDES and NPDES permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) that are located in the assessment area. In addition, the well draws from a confined aquifer with the estimated recharge area within the selected time of travel and the overlying soils may not provide adequate protection from potential contamination. While the source water assessment rates our well as being 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.

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

We are required to monitor your drinking water for specific contaminants on regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2017, we did not monitor for Disinfection By-Products during the 2<sup>nd</sup> quarter of 2017 from the distribution system & Synthetic Organic Contaminants for the period 7/1/16 – 12/31/17 from both the Filter Plant and Well Treatment Building, and therefore cannot be sure of the quality of your drinking water during that time. Samples were collected for Disinfection By-Products during 3<sup>rd</sup> & 4<sup>th</sup> quarter of 2017 and 1<sup>st</sup> quarter of 2018 and results were all below Health Standards. Additionally, Synthetic Organic Chemicals were collected during the 1<sup>st</sup> quarter of 2018 and showed no detections in either the Filter Plant or Well Treatment Building.

### NYS DOH Evaluation

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. 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 this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards. This assessment found no noteworthy risks to source water quality.

A copy of this Assessment including a map of the assessment area can be obtained by contacting us as noted on this report.

### INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

## INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfecting or by disinfecting. Ingestion of Giardia may cause giardiasis, and intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand-washing practices are poor.

## INFORMATION ON RADON

Radon is a naturally occurring radioactive gas found in soil and outdoor air that may be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancers. The main risk is lung cancer from radon entering indoor air from soil under homes.

## 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 systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health 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.

## Are there Contaminants in our Drinking Water?

As the state regulation requires, we routinely test your drinking water for contaminants. These contaminants include. Total coliform, turbidity, and inorganic compounds, total trihalomethanes, radiological, zinc, color, chlorine, PH and temperature. The table presented in this report 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 obtain by calling the EPA's Safe Drinking Water Hotline (800) 426-4791 or the Orange County Health Department at (845) 291-2331

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 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.

**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 disinfectant below to control microbial contamination.

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

**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).

A microgram per liter (ug/l) corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

Table of Detected Contaminants

Contaminant Walton Lake	Violati on Yes/No	Date of Sample	Level Detected (Avg./Max range)	Unit Measure ment	MCLG	Regulatory Limit (MCL TT OR AL)	Likely source of Contamination
<b>Distribution</b>							
Haloacetic Acids (HAA5's)LRAA1 Haloacetic Acids (HAA5's)LRAA2	NO	Quarterly 2017	(1.4 – 24.7) Avg. 13.8 (7.7 – 41.4) Avg. 20.6	Ug/l	N/A	MCL 60	Byproduct of drinking water disinfection
(Disinfection by products) Total Trihalomethanes LRAA1 LRAA2	NO	Quarterly 2017	(2.9 - 59) Avg. 37.3 (15 -38) Avg. 24 (Note 5)	Ug/l	N/A	MCL 80	Byproduct of drinking water chlorination needed to kill harmful organisms. THMs are formed when source water contains large amounts of organic matter.
(Inorganic Copper)	NO	7/12/17	90 <sup>th</sup> percentile .30 (note 2)	Mg/L	1.3 mg/l	AL = 1.3	Corrosion of galvanized pipes Erosion of natural deposits
Lead	NO	7/12/17	90 <sup>th</sup> percentile 6.3 (note 3)	Ug/L	0	Al = 15	Corrosion of household plumbing systems, erosion of natural deposits
<b>Filtration Plant</b>							
Turbidity	NO	For the year of 2017	100% of samples below 0.3	NTU	NA	$\pi = 95\% < 0.3$	Soil erosion.
Turbidity	NO	3/12/17	(note1) High .18	NTU	NA	$\pi = 1$	Soil erosion.
Barium	NO	7/6/17	.014 Mg/L	Mg/L	2	2	Erosion of natural deposits
Sodium	NO	7/6/17	92	Mg/L	N/A	See note 4	Naturally occurring
<b>WELL #12</b>							
Nitrate as N	NO	7/6/17	.43 Mg/L	Mg/L	2	MCL = 10	Erosion of natural deposits
Manganese	NO	Throughout 2017	Avg. 186.6 Ug/L Rng. 140 - 230 Ug/L	Ug/L	N/A	MCL = 300	Naturally Occurring indicative of landfill contamination
Barium	NO	7/6/17	.32 Mg/L	Mg/L	2	2	Erosion of natural deposits

**Notes:**

1. 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. Our highest single turbidity measurement for the year occurred on 3/12/17 (.18 NTU). State regulations require that turbidity must always be below 1 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU.
2. The level presented represents the 90<sup>th</sup> percentile of the 20 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, 20 samples were collected at your water system and the 90<sup>th</sup> percentile value was the second highest value, the low was .029 Mg/L and the high was .49 Mg/L. The action level for copper was not exceeded at any of the sites tested.
3. The level presented represents the 90<sup>th</sup> percentile of the 20 samples collected. The low was 1.0 Ug/l the high was 35 Ug/L. Only one sample taken exceeded the action level for Lead.
4. 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.
5. 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. Village of Chester 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 you 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>.

**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 if you have questions.