

TOWN OF CHESTER
ANNUAL REPORT FOR DRINKING WATER QUALITY 2017
Walton Lake Estates Water District
1786 Kings Highway
Chester, New York 10918
Public Water Supply ID #3503525

Introduction

To comply with State and Federal regulations, Walton Lake Estates Water District issues an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water. There were violations issued by the Orange County Health Department that are noted in this report. 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 Thomas Keller, the Water Operator at (845) 469-7000 x 322. We want you to be informed about your drinking water. If you want to learn more, attend any of our regularly scheduled Town Board meetings. The meetings are held on the second and fourth Wednesday of each month at 7:00 pm at the Town of Chester Town Hall, 1786 Kings Highway, Chester, New York.

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. It can also 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 Environmental Protection Agency (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.

The Walton Lake Estates water supply, which consists of approximately one hundred and ninety-one (191) service connections originates from four (4) drilled wells: Well F3, approximately five hundred feet deep, and Well F4, approximately five hundred feet deep. Well C2 and Well C3 are only used in emergency situations with Orange County Department of Health approval. The Walton Lake Estates wells contain large concentrations of inorganic chemicals specifically iron and manganese in Well F3 and F4. A greensand filtration system is provided for the removal of these two contaminants. Treatment with zinc orthophosphate is on line for corrosion control. To optimize corrosion control, the water's pH is also adjusted. The supply undergoes further treatment by a chlorination system to ensure bacteriologically safe, potable water.

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 were evaluated. The State source water assessment includes a susceptibility rating that is based on the risk posed by each potential source of contamination, and on how easily contaminants can move through the geologic 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 "Table of Detected Contaminants" for a list of the contaminants that have been detected. The source water assessment provides resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from four drilled wells. The source water assessment has rated these wells as having medium susceptibility to microbials. This rating stems primarily from:

- 1) Close proximity of low level residential activity.
- 2) Septic systems in the assessment area.
- 3) The wells draw from a confined aquifer having an estimated recharge area within the selected time of travel; thus the overlying soils may not provide adequate protection from potential contamination. Despite the fact that the source water assessment rates our wells as being susceptible to microbials, our water does undergo disinfection so as to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

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

Are There Contaminants in Our Drinking Water?

As State regulations require, we routinely test your drinking water for many 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. For some contaminants, the State allows us to test less often than once per year. This is because the concentrations of these contaminants do not change frequently. As a result, some of the data you see below, 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the Orange County Health Department at (845) 291-2331.

Table of Detected Contaminants

| Contaminant | Violation Yes/No | Date of Sample | Level Detected (Avg./Max range) | Unit Measurement | MCLG | Regulatory Limit (MCL or AL) | Likely Source of Contamination |
|-------------------------------|------------------|------------------------|--|------------------|------|-------------------------------|--|
| Total Trihalomethanes (TTHMs) | No | 8/08/17 | 9.2 | ug/l | N/A | MCL=80 | By-product of drinking water disinfection needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| Haloacetic Acids (HAA5's) | No | 8/08/17 | 3.5 | ug/l | N/A | MCL = 60 | |
| Chloride ⁴ | Yes | 2017 quarterly samples | 260-269 range 204-269 | mg/l | 250 | N/A | Indicative of road salt contamination |
| Barium | No | 8/17/16 | 0.041 | mg/l | 2 | MCL=2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Lead ² | No | 9/15 10 samples | 90 th %ile = 15 ² range 1-29 | ug/l | 0 | AL=15 MCL=15 | Corrosion of household plumbing systems, erosion of natural deposits |
| Copper ³ | No | 9/15 10 samples | 90 th %ile= 330 range 69-330 | ug/l | 1300 | MCL=1300 | Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives |
| Nitrate | No | 8/16/17 | 0.143 | mg/l | 10 | MCL=10 | Run off from fertilizer use |
| Sulfate | No | 8/13/13 | 21.8 | mg/l | N/A | MCL=250 | Naturally occurring |
| Sodium ¹ | No | 12/20/17 | 110 | mg/l | N/A | See Note 3 | Road Salt |
| Uranium | No | 6/18/14 | 3.83 | pCi/l | 0 | MCL=20 | Erosion of natural deposits |
| Nickel | No | 8/17/16 | 2 | Ug/l | 100 | MCL=100 | Erosion of natural deposits |
| Coliform ⁵ | No | 11/8/17 | 1 positive sample | N/A | 0 | TT = 2 positive samples/month | Naturally occurring in the Environment |

¹ 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.

² 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 at your water system and the 90th percentile was the second highest value (15 ug/L). Although the action level for lead was exceeded at one of the sites tested, it is not enough to constitute a violation.

³ 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 copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile was the second highest value (330 ug/l). The action level for copper was not exceeded at any of the sites tested.

⁴ No health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition, to the adverse taste effects, high chloride concentration levels in the water contribute to the deterioration of domestic plumbing and water heaters. Elevated chloride concentrations may also be associated with the presence of sodium in drinking water.

⁵ The required number of repeat coliform samples were collected in response to the positive sample collected on 11/8/17. All repeat samples collected were negative for coliform; as such, this positive sample was never confirmed and no additional action was required.

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.

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).

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.

What Does This Information Mean?

As you can see by the “Table of Detected Contaminants”, our system had 3 violations for exceeding the chloride MCL in 2017. Chloride has no health effects as noted below. The highest chloride sample was 269 mg/l and the average chloride level for the year was 249 mg/l, with three out of four above the MCL of 250 mg/l. Here then is the health effects language for chloride as required for exceeding the MCL:

No health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition to the adverse taste effects, high chloride concentration levels in the water contribute to the deterioration of domestic plumbing and water heaters. Elevated chloride concentrations may also be associated with the presence of sodium in drinking water.

Although we did not violate the 90% tile value for Lead, we did exceed the action level for lead at one location and provide the following information on lead:

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. Walton Lake 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?

The District was notified of violations for continued use of Well F-4 without a NYSDEC Water Taking Permit. The Town has submitted a permit application with NYSDEC and is in the process of providing additional paperwork.

Do I Need to Take Special Precautions?

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

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 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 to provide your family with drinking water this year. In order to maintain a safe and dependable water supply, improvements may need to be made that will benefit all of our customers. The cost of these improvements would be reflected in the rate structure, and rate adjustments might be necessary. The original green sand filter vessels from 1976 were replaced in late 2012. Construction on a new 85,000 gallon storage tank began in the fall of 2015, and is now complete. The well water supply has been difficult to maintain in 2017. Well rehabilitation and a cleaning process have been underway in hopes of increasing the yield, as well as possibly lowering the elevated chlorides. A reverse osmosis filter system is in the engineering stages, but these systems typically produce too much waste water to put into use with our limited supply. An evaluation of other systems for efficiency is also being done. Other possibilities are currently being explored, such as the drilling of additional wells on some recently acquired town property. There is no water restriction enacted at this time, but it is requested that everyone use their water wisely. We ask that all of our customers help us protect our water sources, the heart of our community. Please call our office if you have any questions.