HEALTH NOTES

In order to ensure that **tap water is safe to drink**, the Department of Environmental Protection (MA DEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be 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).

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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, **elevated levels of lead** can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Cheshire Water Department 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 or at http://www.epa.gov/safewater/lead.

Cross connections are potentially hazardous situations for public or private potable water supply and a source of potable water contamination. A cross connection is any potential or actual physical connection between a potable water supply and any source through which it is possible to introduce any substance other than potable water into the water supply. Common Cross connection scenarios are a garden hose whose spout is submerged in a bucket of soapy water or connected to a spray bottle of weed killer.

Cross Connections between a potable water line and a non-potable water system or equipment have long been a concern of the Department of Environmental Protection (MA DEP). MA DEP established regulations to protect the public health of water consumers from contaminants due to back-flow events. The installation of back-flow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections is recommended. You can purchase this at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your community. For additional information on cross connections and on the status of your water system's cross connection program, please contact us.

Residents can help protect our water resources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives and conservation measures
- Taking hazardous household chemicals to hazardous materials collection days
- Limiting pesticide and fertilizer use, etc.

"Water is essential for all dimensions of life."
World Bank Institute, WATER POLICY REFORM - Nov. 1999

Contact Us

Francis 'Bigs' Waterman, Jr., Water Operator
Travis Delratez, Water Superintendent
Rick Gurney, Commissioner
Donald Rueger, Commissioner

Cheshire Water Department
Phone: (413) 743-1690 ex. 16
80 Church Street, Box S
Cheshire, MA 01225

CHESHIRE WATER DEPARTMENT

80 CHURCH STREET, BOX S | CHESHIRE, MA 01225
MA DEP PUBLIC WATER SUPPLY ID# 1058000

2017 Water Quality Report

Your Annual Drinking Water Quality Information

This report provides a snapshot of the drinking water quality that was achieved last year. Included are details about where your water comes from, what it contains, and how its quality compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

PUBLIC WATER SYSTEM INFORMATION

The Town of Cheshire Water System provides water to 565 homes and businesses. Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MA DEP). MA DEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees the routine operations of our system. A process for treating moderately hard water is used to prevent build up in the water distribution system. All chemical coagulation is approved for drinking water by the American Water Works Association. Disinfection treatment is not required due to the high quality of our water. The water is monitored by us and MA DEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required . Our last MA DEP Sanitary Survey was conducted in 2015, all identified concerns are being addressed. As part of our commitment to you we make regular repairs to the system on an ongoing basis. In 2017 major repairs to the screens located in Well 02G were performed and a Master Plan was completed.

YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Cheshire's water comes from two manifold ground water wells located east of Route 8 on Pump Station Road. The two wells are gravel packed with a capacity of 410,000 gallons per day. Water is stored in a 450,000 gallon storage tank located on West Mountain Road prior to distribution. The sources are designated by MA DEP Source Name and ID Source Number as: New Well [1058000-02G and Well 2 [1058000-03G]. The Town's former water source, 'Kitchen Brook Reservoir', has been disconnected from the system and is available only in the event of an emergency.

How are These Sources Protected?

MA DEP, under the Source Water Assessment Program (SWAP), prepared a SWAP Report dated, April 11, 2002, to assist in the identification of potential sources of contamination. A susceptibility ranking of "high" was assigned to this system due to the absence of hydrogeologic barriers that can prevent potential contaminant migration from the surface. Typical agricultural, commercial, industrial and residential land use around such water sources can contribute to contamination. The SWAP report outlines land activity concerns conducted around our watershed. The complete SWAP report is available at the Cheshire Town Hall and Cheshire Library or by contacting the Western Regional Office of MA DEP at (413)755-2215. You may also view this report online at: http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1058000.pdf.

Prepared by *Housatonic Basin Sampling and Testing* on behalf of your water supplier. This report is a compilation of best available data sources including: licensed operators' reports; water supply owner's coordination; MA DEP public records; and EPA online records. The report represents an accurate account of your water quality to the best of our knowledge.

Cheshire Water Department

SUBSTANCES FOUND IN TAP WATER

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 activity. Contaminants that may be present in source water include:

Microbial contaminants -such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants -such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides -which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants -including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants -which can be naturally occurring or be the result of oil and gas production and mining activities.

COMPLIANCE WITH REGULATIONS

Does Drinking Water Meet Current Health Standards?

We are committed to providing you with the best water quality available, however some contaminants that were tested last year did not meet all applicable health standards regulated by the state and federal government. In September and October 2017 coliform bacteria was detected in a total of 5 of 19 samples taken. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. During this time, a public notice was posted, the system was disinfected and flushed, sampling performed on November 14 determined that the issue had been resolved. Additionally, a Level II Assessment was conducted and corrective action has been completed. Corrective actions included, finishing the repairs to well 2, disinfecting the system, and revising the routine sample site to a more appropriate location.

Drinking Water Violations

During the 3rd Quarter of 2017 we failed to notify MA DEP that we proposed to use alternative site to collect Lead and Copper samples. Additionally, in October 2017 we failed to report a tally of these results on the MA DEP designated Form LCR D in a timely manner. We have revised the sampling plan so that approved site for sampling may be used and we will file the report within the designated timeline in the future. For more information regarding our system you may also visit the EPA website at:
http://www.epa.gov/enviro/facts/sdwis/search.html

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCLG) – 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 (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 that a water system must follow.

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the action level to determine lead and copper issues.

Secondary Maximum Contaminant Level (SMCL)-These standards are developed to protect aesthetic qualities of drinking water and are not health based.

Unregulated Contaminants –those for which EPA has not established drinking water standards. The purpose is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Office of Research and Standards Guideline (ORSG) -concentration of a chemical in drinking water at or below which adverse health effects are unlikely to occur after chronic exposure. If exceeded, it serves as an indicator of the potential need for further action.

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

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 contaminants.

Turbidity—A measure of the cloudiness of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Level I Assessment –is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in a water system.

Level II Assessment –is a detailed study of a the water system to identify potential problems and determine (if possible) why an E. Coli MCL violation and/or why multiple occasions of total coliform bacteria has been reported.

WATER QUALITY TESTING RESULTS

The water quality tables show the most recent water quality testing results where levels were detected and compares those levels to standards set by the Environmental Protection Agency and Massachusetts Environmental Protection Agency.

MA DEP has reduced the monitoring requirements for *inorganic contaminant (IOC's), and synthetic organic contaminants (SOC's)* because the source is not at risk of contamination. Cheshire Water Department's latest samples collected for IOC's were collected in April 2014, Nitrite, Iron and Manganese were collected on April 11 2017, VOC's and Perchlorate were collected in July 2017, and found to meet all applicable US EPA and MA DEP standards. With the exception of those compounds noted on the tables below, all other compounds in the testing panels reported undetectable levels.

	Date(s) Collected	90th (%)	Action Level	MCLG	Sites Sampled
Lead (ppb)	3rd Quarter 2017	0	15	0	10
*Possible LEAD Contamination sources include Corrosion of household plumbing and erosion of natural deposits.					
Copper (ppm)	3rd Quarter 2017	0.44	1.3	1.3	10
*Possible COPPER Contamination sources include Corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives.					

	Highest # of Positive (month)	MCL	MCLG	Violation
Total Coliform	3 of 11 (Sept)	1	0	Yes
*Possible sources of contamination, naturally present in the environment				
Fecal Coliform (or *E.coli*)	0	*	0	No
*Possible sources of contamination, human and fecal waste *MCL compliance is determined upon additional repeat testing				

Inorganic Contaminants						
Regulated Contaminant	Date(s) Collected	Highest Result	Range Detected	MCL or MCDL	MCLG OR MRDLG	Violation
Barium (ppm)	16 April 2014	0.014	N/A	2.0	2.0	No
Nitrate (ppm)	11 April 2017	1.27	N/A	10	10	No
*Possible BARIUM Contamination sources include discharge of drilling wastes, metal refineries, erosion of natural deposits *Possible NITRATE Contamination sources include runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits						
Secondary Contaminants						
Sodium (ppm)	11 April 2017	37.2	—-	—-	ORSG-20	No
*Possible SODIUM Contamination sources include natural sources, runoff from use as salt on roadways.						

Radioactive Contaminants					
Gross Alpha (pCi/L)	21 July 2015	-0.146	——	15	Sources include erosion of natural soil deposits
Radium 226 (pCi/L)	21 July 2015	-0.153	——	5	
Radium 228 (pCi/L)	21 July 2015	0.369	——-	5	

Opportunities for Public Participation

The Water Commissioners meet every Tuesday evening at 7:00 pm at the Cheshire Town Hall. The public is welcome to attend and discuss any water related issues or concerns. You may also visit the Town of Cheshire website at:
http://cheshire-ma.com/

UNITS OF MEASURE

ppm	= parts per million, or milligrams per liter (mg/l)
ppb	= parts per billion, or micrograms per liter (ug/l)
ND	= Not Detected
N/A	= Not Applicable
NTU	=Nephelometric Turbidity Unit
pCi/L	=Unit measure of radioactivity