

2021 ANNUAL DRINKING WATER QUALITY REPORT

This report is a snapshot of the drinking water quality that was provided last year. Included are details about where your water came from, what it contained, and how it compared to state and federal standards. Our system makes every effort to provide you with safe and pure drinking water.

for

Charlton Manor Rest Home PWS ID #2054005



Prepared by

McCLURE
ENGINEERING, INC

The water system is owned by Charlton Manor Rest Home. For additional copies, please contact Michael Turpin at 508.248.5136 or the McClure Engineering website at <http://www.mcclureengineers.com/water.html> or office at 508.248.2005.

This report contains very important information about your drinking water.
Please translate it, or speak with someone who understands it.

Community Drinking Water Source

Charlton Manor Rest Home is located in Charlton, MA, and is supplied water by the following groundwater source:

- PWS Source ID# 2054005-01G (Well #01G)

Data in this report reflects water quality from Well 01G

Charlton Manor Rest Home continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor our water source and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

Is My Water Treated?

To ensure that we provide the highest quality of water available, certified operators and MassDEP regularly monitor water quality. When standards are exceeded, MassDEP requires treatment. Currently Well 01G is treated to remove arsenic and radon. Chlorine disinfection is available for emergency situations.

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 storm water runoff 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 storm water 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 storm water runoff, and septic systems.
- **Radioactive contaminants**, can be naturally occurring or be the result of oil and gas production and mining activities.

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 US Environmental Protection Agency (EPA) Safe Drinking Water Hotline (1-800-426-4791).

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 infants can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and 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.

~ CROSS CONNECTION CONTROL AND PREVENTION ~

Cross connections are the links through which it is possible for contaminating materials to enter a potable water supply. The contaminant enters the potable water system when the pressure of the polluted source exceeds the pressure of the potable source. The action may be called backsiphonage or backflow. Essentially it is reversal of the hydraulic gradient that can be produced by a variety of circumstances. A cross connection is an actual or potential connection between a drinking water pipe and a polluted source. The pollution can come from your own home. Using a backflow prevention device on your hose connection when washing your car, for example, can prevent backsiphonage of car wash chemicals into a water supply.

Charlton Manor recommends the installation of low-cost hose bibb vacuum breakers for all inside and outside threaded spigots and hoses. You can purchase them at a hardware store or plumbing supply store. This is a great way to help protect the water system that serves your home and community!

~ IMPORTANT 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 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.

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

Office of Research and Standards Guideline (ORSG) – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) 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.

Action Level (AL) – The concentration of a contaminant that, 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 compliance.

ppm = parts per million, or milligrams per liter (mg/l)

ppb = parts per billion, or micrograms per liter (ug/l)

pCi/l = picocuries per liter (measure of radioactivity)

ND = Not Detected

N/A = Not Applicable

DISTRIBUTION SYSTEM WATER QUALITY

The quality information presented in the tables below is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the tables.

Lead & Copper	Last Date Collected	* 90 th Percentile	Action Level (AL)	MCLG	# of sites sampled	# of sites above Action Level	Exceeds Action Level	Possible Sources of Contamination
Lead (ppb)	Q3 2020	2	15	0	5	0	N	Corrosion of household plumbing; erosion of natural deposits
Copper (ppm)	Q3 2020	0.12	1.3	1.3	5	0	N	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.
*9 out of every 10 sites sampled were at or below this level. Lead and copper compliance is determined by comparing the 90 th percentile value to the Action Level (AL) for each contaminant. The AL is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.								
Lead and copper sampling is scheduled every three years. The last samples collected were in September, 2020 and the next sample collection will be during Quarter 3 of 2023.								

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. Century Mill Estates 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 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>.

Regulated Contaminants	Date Collected	Highest Result or Highest Avg	Range detected	MCL	MCLG	Violation (Y/N)	Possible Sources
Inorganic Contaminants							
Arsenic (ppb)	3/2/21 5/5/21 8/31/21 10/6/21	1	0 - 1	10	N/A	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrate (ppm) (annual)	5/5/21	0.053	0.053	10	10	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
PFAS6 (ppt)	10/6/21	2.54	2.54	20	N/A	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.

Radioactive Contaminants							
Gross Alpha Particle Activity (pCi/L)	5/5/21	8.3	8.13	15	0	N	Erosion of natural deposits.
Radium 226 & 228 (pCi/L)	4/9/18	2.02	N/A	5	0	N	Erosion of natural deposits.
- Synthetic Organic Contaminants (SOCs) were sampled in May 2021. <u>SOCs were non-detected.</u>							
- Volatile Organic Compounds (VOCs) were sampled in May 2021. <u>VOCs were non-detected.</u>							

*Unregulated Contaminants	Last Date Collected	Result or Range Detected	Average Detected	SMCL (ppb)	ORSG	Possible Sources
Sodium*** (ppm)	8/30/21	19.6	19.6	N/A	20	Discharge from the use & improper storage of sodium-containing de-icing compounds or in water-softening agents.
Radon-222 (pCi/L)	10/6/21	<100 – 21,700	4537.5	N/A	10,000	Natural sources
<p>- *Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist US EPA in determining their occurrence in drinking water and whether future regulation is warranted.</p> <p>- **US EPA and MassDEP have established public Health Advisory (HA) levels for manganese to protect against concerns of potential neurological effects and a one-day and 10-day HA of 1000 ppb for acute exposure.</p> <p>- ***<u>Sodium</u>: Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure.</p>						

Drinking Water Violations ~

A drinking water sample collected on July 22, 2021, showed radon levels in excess of the MassDEP health-based guideline of 10,000 pCi/L for residential uses. This was due to the radon removal unit not working correctly and thus the treatment was bypassed. Our system announced public notification upon awareness of the violation. Following the violation, the radon removal unit was replaced on August 30, 2021, and approved by the MassDEP on October 13, 2021. Since the radon unit replacement, all samples collected have been below the MassDEP guideline. We will continue to monitor our water quality and collect all required samples per our MassDEP sampling schedule.

~ EDUCATIONAL INFORMATION ~

SWAP (Source Water Assessment and Protection) ~

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for Charlton Manor Rest Home. The report assesses the susceptibility of the public water supply to contamination and makes recommendations.

Residents can help protect sources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Limiting pesticides, fertilizer uses, and unnecessary outdoor watering

Opportunities to Participate ~

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented at the regularly scheduled meeting of the trustees, association or board. If your concerns need immediate attention contact Owner, Michael Turpin at (508) 248-5136.

Water System Improvements ~

Our water system is routinely inspected by MassDEP for its technical, financial and managerial capacity to provide safe drinking water to you The PWS continues to monitor the water and make adjustments when necessary.

Charlton Manor Rest Home
PWS ID# 2054005
12 Town Farm Road
Charlton, MA 01507
(508) 258-5136

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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For more information please contact:

Charlton Manor Rest Home
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12 Town Farm Road
Charlton, MA 01507
#508.258.5136

This report was prepared by McClure Engineering, Inc.

Also available at <http://www.mcclureengineers.com/>

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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER