

ANNUAL WATER QUALITY REPORT 2009



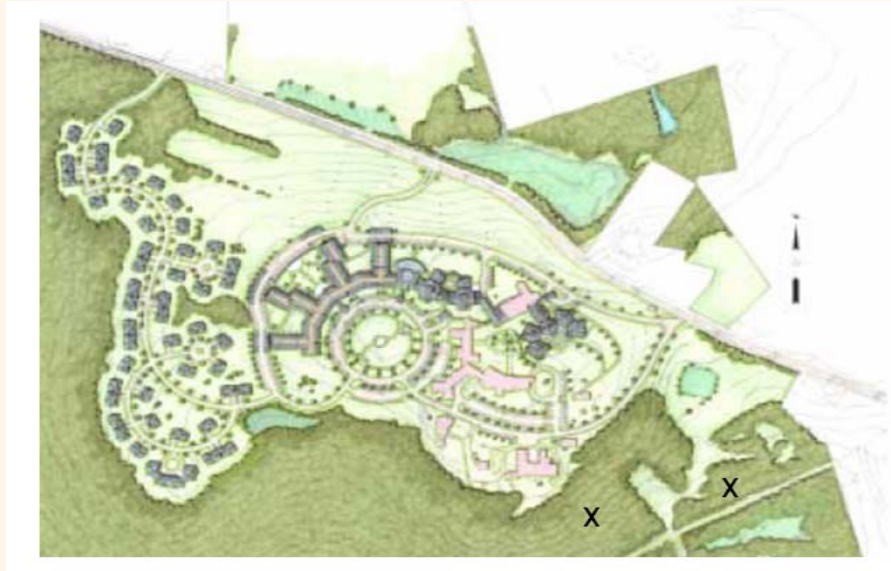
OVERLOOK MASONIC HEALTH CENTER CHARLTON, MASSACHUSETTS PWS ID 2054003

Public Water System Information

The Overlook Masonic Health Center is pleased to issue our annual water quality report. This report discusses the quality of the drinking water on campus and shows test results for 2009. It confirms that our water meets or surpasses the requirements for safe drinking water as established by State and Federal standards. We are committed to providing you with information about our water quality because informed residents and staff are our best allies. For more information about your water, call **George W. Senerth, Jr., Vice President of Environmental Services at 508.434.2262**. Copies of this report are available upon request for all residents living at The Overlook Life Care Community, their visitors, and our staff.

Sources of Drinking Water

We have two sources of drinking water. Both are groundwater wells (2054003/03G and 2054003/04G) and are located on the east side of our property. Each well is marked with an **X** on the property layout below. Well 03G is approximately 500-feet deep, while Well 04G is 800-feet deep. Both wells share the same bedrock aquifer system through an inter-connected series of fractures.



Because our wells are newer, the 2001 Source Water Assessment and Protection (SWAP) report is now out of date. However in 2008 we were notified by MassDEP that it had been determined our groundwater was under the influence of surface water. As a result, we were required to begin disinfection of our drinking water supply. We began chlorination of our raw water supply prior to its entering the storage tank in March 2008 using a chlorine injection system. Readings are taken two times every day of the week to ensure quality drinking water.

In September 2009 MassDEP conducted a sanitary survey which is a periodic inspection of our water system's facilities, operations, and record keeping. We were found to be in compliance.

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 that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

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

Substances Found in Tap Water (continued from previous page)

Pesticides and herbicides – that 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 (VOCs), 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 – which can be naturally occurring or be the result of oil and gas production and mining activities. Any detections must be reported each year for a period of five consecutive years unless newer results are obtained.

Lead - 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. The Overlook Life Care Community 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 two minutes before using water for drinking or cooking. We test in accordance with regulations to assure our residents, employees and visitors have the safest and cleanest drinking water possible. Our regular sampling includes testing at 10 different locations on campus plus two sites at the Summit Eldercare. All 12 sites were well below the action level for lead and copper in the last round of testing. 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>

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the 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 at 800.426.4791.

Water Quality Testing Results

The water quality information presented in the following tables is from the one or more rounds of testing done in accordance with the drinking water regulations. We also tested for bacteria (none were detected) as well as volatile organic compounds (VOCs) in calendar year 2008.

Cross Connection Control

At any point where a drinking water line connects to water of questionable quality, a backflow may occur in the drinking line causing a contamination. This is called a cross connection. A simple example of this is the common garden hose connected to a tap with the other end of the hose inserted into a pool or other external source. Other examples of cross connections may occur at boilers, air conditioning systems, fire sprinkler systems, and irrigations systems. Our facility has been surveyed for cross connection hazards and has proper backflow devices wherever necessary.

2009 Water Testing Results

Lead and Copper*	Date Collected	90 th Percentile	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites Above AL	Exceedance (Yes/No)	Possible Sources
Lead (ppb)	9/16/08	3	15	0	10	0	No	Corrosion of household plumbing
Copper (ppm)	9/16/08	.21	1.3	1.3	10	0	No	Corrosion of household plumbing

*Lead and copper compliance is based on the 90th percentile value which is the highest level found in 9 out of every 10 sites sampled. This number is compared 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.

ppb - parts per billion or micrograms per liter (ug/L)

ppm - parts per million, or milligrams per liter (mg/L)

Disinfection Byproducts and Disinfectants	Date Collected	Highest Running Annual Average	Range of Detection	MCL or MRDL	MCLG or MRDLG	Violation (Yes/No)	Possible Sources
Total Trihalo-Methanes (TTHMs) (ppb)	Quarterly	2	.7 – 3.3	80	---	No	Formed as a by-product when chlorine is added to water supply systems.
Chlorine (ppm)	Monthly	.3	.20 - .35	4	4	No	Water additive used to control microbes

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.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) 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 (chlorine, chloramines, chlorine dioxide) 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.

Microbial Contaminants	Highest # Positive Samples/Month	MCL	MCLG	Violation (Yes/No)	Possible Sources
Total Coliform Bacteria	0	1	0	No	Naturally present in the environment
Fecal Coliform Bacteria	0	*	0	No	Human and animal fecal waste

*Compliance with the fecal coliform / E.coli MCL is determined upon additional repeat testing. There were no coliform detections in 2009.

Unregulated & Secondary Contaminants	Date Collected	Level Detected	SMCL	ORSG	Possible Sources
Sodium (ppm)	05/05/09	11	---	20	Road salt, erosion of natural deposits
Manganese (ppm)	05/05/09	.01	.05	---	Naturally occurring in rocks and soil
Sulfate (ppm)	05/05/09	26	250	---	Naturally occurring in rocks and soil
Zinc (ppm)	05/05/09	.12	5.0	---	Naturally occurring in rocks and soil
Radon (pCi/l)*	04/03/07	2300	--	10,000	Natural sources

Unregulated and Secondary Contaminants – Unregulated contaminants are those for which there are no established drinking water standards. Monitoring of unregulated contaminants assists regulatory agencies in determining the occurrence of the contaminants in drinking water and helps to determine the need for future regulation.

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

Office of Research and Standards Guidelines (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.

***Radon** is an odorless, tasteless gas that occurs naturally from the breakdown of uranium in soil. Radon can move up through the ground and into a home through cracks in the foundation. It can also get into indoor air when released from tap water. Breathing in radon gas over a long period of time can increase your risk of getting lung cancer. Drinking tap water containing high amounts of radon may increase your chances of developing stomach cancer. The current guidance for radon in drinking water in Massachusetts is 10,000 **picocuries per liter (pCi/l)**. Typically this would result in an increase of 1 pCi/l to the air inside the home. US EPA currently advises people to take action if the total level of radon in their household air is above 4 pCi/l. For more information about radon, contact the EPA at 1-800-767-RADON.

Volatile Organic Contaminants	Date Collected	Highest Level Detected	Range	MCL	MCLG	Violation (Yes/No)	Possible Sources
Total Xylenes (ppm)	Quarterly	6	0 – 6	10	10	No	Leaks and spills from gasoline and petroleum storage tanks

Radioactive Contaminants	Date Collected	Highest Level Detected Average	Range	MCL	MCLG	Violation (Yes/No)	Possible Sources
Alpha Emitters (pCi/l)	Quarterly in 2005	1.7	1.0 – 1.7	15	0	No	Erosion of natural deposits
Radium – 226 and – 228 (pCi/l)	Quarterly in 2005	1.4	1.0 – 1.4	5	0	No	Erosion of natural deposits

Radioactive Contaminants	Dates Collected	Highest Level Detected Average	Range	MCL	MCLG	Violation (Yes/No)	Possible Sources
DI(2-ethylhexyl) phthalate (ppb)	5/19/09 & 7/21/09	1.1	0 – 1.1	6	0	No	Discharge from rubber and chemical factories

The Positive Effects of Water

Are you drinking enough water? According to the University of Washington, 75% of Americans are chronically dehydrated. For 37% of Americans, the thirst mechanism is so weak that it is often mistaken for hunger. Even **mild** dehydration will slow down one's metabolism as much as 3%. Here are some facts from the study:

- One glass of water shuts down midnight hunger pangs for almost 100% of the dieters studied.
- The lack of water is the number one trigger for daytime fatigue.
- Preliminary research indicates that 6 – 8 glasses of water per day significantly ease back and joint pain for up to 80% of sufferers.
- A mere 2% drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on a computer screen or printed page.

What You Should Know About the Water You Use

- The average American uses 140 – 170 gallons of water per day.
- The average family of four uses 881 gallons of water a week to flush the toilet.
- If you leave the water running when you brush your teeth, you'll use about 5 extra gallons of water a week.
- An automatic dishwasher uses 9 – 12 gallons of water. Hand washing dishes can use up to 20 gallons of water.
- You can refill an 8-ounce glass of water approximately 15,000 times for the same cost as a six-pack of soda pop.
- A leaky faucet or toilet can waste 100 gallons of water each day.

Tap Water vs. Bottled

Thanks to aggressive marketing, the bottled water industry has successfully convinced us that all water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than tap water. In fact, about 25% of bottled water is actually just bottled tap water. The government estimate is even higher (40%).

The U.S. Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than The Overlook Life Care Community is held to by the Department of Environmental Protection in Massachusetts.

If you drink water from your tap, you could be saving upwards of \$1400 a year. Even if you installed a filter device on your tap, your annual savings would far offset the cost of the filtering mechanism in just the first year.

Public Participation Opportunities

If you are ever interested in scheduling a meeting of residents and staff to discuss our water, please contact Marnie Butler in Environmental Services at 508.434.2257.