

2008 Annual Drinking Water Quality Report “Consumer Confidence Report”

For
Charlton Housing Authority
Charlton, Massachusetts
DEP PWS ID # 2054043

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

I. PUBLIC WATER SYSTEM INFORMATION

Address: **1 Meadowview Drive**

Contact Person: **Jean Vincent**

Telephone #: **(508)248-5067**

Fax #: **(508)248-3826**

Water System Operation and Management

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (DEP). 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.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, we encourage anyone to attend our monthly Housing Board meetings that are held on the second Tuesday of each month in the community building. These meetings provide an open forum to anyone who has questions or comments concerning their water.

II. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Your water is provided by the following source listed below:

Source Name	DEP Source ID#	Source Type	Location of Source
Well #1	2054043-01G	Groundwater	The 325' deep rock well is enclosed in a 15'x25' building (shown below) located 15 feet south of building #16 along Meadowview Drive.

Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. The water quality of our system is routinely monitored by us and the DEP to determine if any treatment may be required. The water quality test results for 2008 show that the water needs to be treated to continue to meet these goals; please refer to Section VI of this report for additional information regarding our corrective actions.

How Is This Source Protected?

DEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source serving this water system. The SWAP Report, dated July 11, 2001, assesses



the susceptibility of the public water supply from potential contaminant sources and assigns it a ranking. DEP ranked the susceptibility of our public water supply as “moderate” due to the presence of septic systems, roads, buildings, and an above-ground storage tank within the Zone I and Interim Wellhead Protection Area (IWPA) of the well. Please note that DEP has not yet updated the SWAP to reflect the completion of the municipal sewer connection project in 2006.

Where Can I See The SWAP Report?

The SWAP report is available at the Housing Authority administration office, or on-line at <http://www.mass.gov/dep/water/drinking/ceroreps.htm>. For more information, call Jean Garmone-Vincent at 508-248-5067, or DEP Central Region Office at 508-792-7650.

III. 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.



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

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.

In order to ensure that tap water is safe to drink, DEP 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.

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 about drinking water from their health care providers. EPA/Center for Disease Control (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 (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. The Charlton Housing Authority 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 and 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>.

IV. IMPORTANT DEFINITIONS

Regulated Contaminant: A contaminant that is subject to an MCL, action level, MRDL, or treatment technique.

Unregulated Contaminant: A contaminant for which there is no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

Secondary Contaminant: A contaminant for which there is a desirable/acceptable level set at which detections above may cause nuisance impacts to drinking water such as affecting taste, odor, color and other aesthetic qualities.

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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

Massachusetts 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

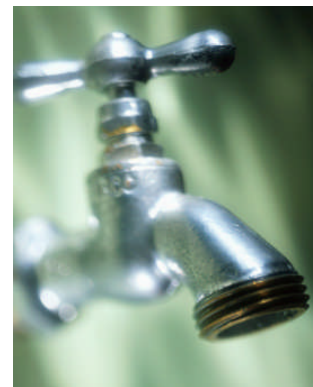
90th Percentile: Out of every 10 homes sampled, 9 were at or below this level.

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 (a measure of radioactivity)

N/A: Not Applicable



V. WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the following tables is from the most recent round of testing done in accordance with the regulations. All data shown was collected during 2008 unless otherwise noted in the tables. Only contaminants that were detected are reported in the tables, all other contaminants required to be tested for were not detected.

TABLE 1: REGULATED CONTAMINANTS								
Contaminant Name	Date(s) Collected	Highest Detect	Range Detected	Highest Average	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source
Inorganic & Organic Contaminants								
Nitrate (ppm)	5/6/08	1.2	N/A	N/A	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Radioactive Contaminants								
Radium 226 & 228 (combined values) (pCi/L)	2/11/08, 5/6/08, 7/25/08, 11/13/08, 12/15/08	8.5	N/A	7	5	0	Y	Erosion of natural deposits
Lead and Copper Rule								
Contaminant Name	Date(s) Collected	90 TH Percentile	Action Level	MCLG	# of Sites Sampled	# of Sites Above Action Level	Violation (Y/N)	Possible Source(s) of Contamination
Lead (ppb)	8/6/08	2	15	0	5	0	N	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	8/6/08	0.1	1.3	0	5	0	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

TABLE 2: SECONDARY CONTAMINANTS

Contaminant Name	Date(s) Collected	Result or Range Detected	SMCL	Possible Source
Chloride (ppm)	2/11/08	90	250	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas
Manganese (ppm)	2/11/08	0.051	0.05	Erosion of natural deposits
Odor (T.O.N.)	2/11/08	1	3	Erosion of natural deposits; Leaching from wood preservatives
pH	2/11/08	6.6	6.5-8.5	-----
Sulfate (ppm)	2/11/08	37	250	Natural sources
Total Dissolved Solids (TDS) (ppm)	2/11/08	420	500	Erosion of natural deposits
Zinc (ppm)	2/11/08	.013	5	Erosion of natural deposits, leaching from plumbing materials

VI. COMPLIANCE WITH OTHER DRINKING WATER REGULATIONS

Does My 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.

Drinking Water Violations

The detected level of Manganese slightly exceeded the SMCL (Secondary Maximum Contaminant Level) however it is important to note that as a Secondary Contaminant, Manganese is a non-enforceable contaminant by DEP therefore this detected level does not constitute a violation. Manganese exceeding the SMCL poses no health risk or concern, however it may cause cosmetic effects (skin, tooth or sink discoloration) or aesthetic effects (such as taste, odor or color) in drinking water.

Beginning in fourth quarter 2006 (October through December), testing of our water system indicated levels of combined radium (radium 226 & 228) in excess of the regulated Maximum Contaminant Level (MCL). These elevated levels constitute a violation and subsequently DEP has issued Orders of Non-Compliance for continued violations of the combined radium MCL throughout calendar years 2007 and 2008.



Also, regretfully, fourth quarter 2007 Radium testing samples were mistakenly not taken and as a result, DEP issued a Notice of Non-Compliance in January 2008 for failure to monitor the contaminants for this time period.

In response to these violations, we have taken the following corrective actions;

- Distributed to all of our residents and posted all DEP Notices of Non-Compliance for the violations.
- Discussions with DEP have continued since the discovery of the Radium violation in 2006. We have contracted Graves Engineering, Inc. to develop a corrective action plan and review possible treatment options, and we have determined that the most desirable option is a connection to the proposed municipal water system. DEP has allowed us to pursue the municipal water connection option with the condition that detected Radium levels do not increase further (and they have not to date).
- In July of 2008, the Housing Authority, with the aid of Graves Engineering, Inc., successfully lobbied the Town of Charlton Water and Sewer Commission and our facility was placed on the priority list of contaminated properties to be allowed to connect the municipal water system when it becomes available.
- We understand the water main that will allow our facility to be connected to the municipal water system will be constructed in 2009. As soon as possible after this water line is constructed, we will make our connection to the system.

Health Effects Statements

Radium 226 & Radium 228: Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Lead: Although the detected levels of lead in your drinking water in 2008 were well below the MCGL, we are required to include the following information;

Is My System Exempt from Meeting Certain Requirements?

DEP has granted waivers for reduced monitoring of Synthetic Organic Contaminants (SOCs) and Inorganic Contaminants (IOCs) because our water source is not at risk for these contaminants.

VII. EDUCATIONAL INFORMATON

Do I Need To Be Concerned About Certain Contaminants Detected In My Water?

Radium 226 & Radium 228: The presence of this contaminant is not an immediate risk. You do not need to use an alternative (e.g. bottled) water supply. However, if you have specific health concerns, please consult your doctor.

