2010 Annual Drinking Water Quality Report
For
The Cherry Valley and Rochdale Water District
Leicester, MA
MassDEP PWS ID # 2151001

Serving Cherry Valley, Rochdale and North Oxford with quality drinking water since 1910

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.

PUBLIC WATER SYSTEM INFORMATION

Address:	148 Henshaw Street, Rochdale, MA 01542		
Mailing Address:	P.O. Box 138, Rochdale, MA 01542		
Telephone #:	(508) 892-9616	Fax #: (508) 892-4371	
E-mail:	cvrwaterdistrict@msn.com	Internet Address: www.cvrwd.com	
Contact Person:	Michael F. Knox, Superintendent		
Board of Commissioners:	Kevin M. Bergin, Chairman Arthur E. J. Levesque Michael L. DellaCava, Sr.	Treasurer: Clerk:	Stanley L. Zagorski Cynthia A. Garabedian

Water System Improvements
Our water system is periodically inspected by the Massachusetts Department of Environmental Protection (MassDEP) 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, the Cherry Valley and Rochdale Water District (CVRWD) has three Massachusetts-certified operators who oversee the routine operation of the system. As part of our ongoing commitment to you, the District completed the rehabilitation and upgrade of the Greenville Standpipe. The upgrades included: restoration of both inside and outside of the tank, a new static mixer, new dome hatches, new center vent, updated security fencing around the standpipe and the Green Street entrance gate. We are currently in the process of rehabilitating the West Street Standpipes and anticipate those upgrades to be completed by Fall of 2011.

Opportunities for Public Participation
If you would like to participate in discussions regarding your water quality, you may attend the Board of Water Commissioners' meetings on the 2nd Monday of every month at 148 Henshaw Street. In accordance with the new Open Meeting Law, please refer to official postings of future meeting agendas at your local Town Hall.

YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?
Your water is supplied by one surface water source and one groundwater source:

Source Name	MassDEP Source ID#	Source Type	Location of Source
Henshaw Pond	2151001-01S	Reservoir	148 Henshaw Street, Leicester, MA
Grindstone Well	2151001-01G	Ground Water	148 Henshaw Street, Leicester, MA

Is My Water Treated?
Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- *We add a disinfectant to protect you against microbial contaminants.*
- *We filter the water to remove small particles and organisms such as sediment, algae and bacteria.*
- *We chemically treat the water to reduce lead and copper concentrations.*
- *We aerate the water to reduce radon concentrations.*
- *We filter the water to remove uranium and other naturally occurring radionuclides.*
- *We filter the water to remove arsenic.*

How Are These Sources Protected? MassDEP has prepared a Source Water Assessment and Protection (SWAP) report for the water supply sources serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

What is My System's Ranking? The overall ranking of susceptibility to contamination for the system is **"high,"** based on the presence of at least one high- threat land use within the water supply protection areas. The CVRWD has four high-threat activities and land uses within the protection areas: Aquatic Wildlife, Stormwater Drains/Retention Basins, Electric Transmission Line Rights-of-Way and Transportation Corridors (Route 9 & Henshaw Street).

How is the CVRWD Addressing the SWAP Report? The District regularly submits written comments and participates in all Planning Board and Zoning Board of Appeals processes relating to land use within the watershed. In November of 1997, the District developed a comprehensive Surface Water Supply Protection Plan for Henshaw Pond that has been used as a model for other communities state-wide. The District further participated in the development of the Town of Leicester's Zoning By-laws called the Water Resources Protection Overlay District. The District regularly conducts on-site inspections of land use within the watershed and communicates such activities with the Town of Leicester Code Enforcement Officer to implement corrective action as warranted.

What Can I Do to Help? Please do not underestimate your impact on your water supply. You can help protect water supplies by supporting local protection plans and initiatives implemented by the Town of Leicester and the CVRWD. Also, practicing good septic system maintenance, taking hazardous household chemicals to designated collection sites and limiting pesticide and fertilizer use will help ensure a clean water supply.

Where Can I See The SWAP Report? The complete SWAP report is available by contacting the Cherry Valley and Rochdale Water District at 508-892-9616. It is also available online at **www.mass.gov/dep/water/drinking/2151001.pdf**

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.

In order to ensure that tap water is safe to drink, MassDEP and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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 at 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 at 800-426-4791.

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.

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

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 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)
NTU = Nephelometric Turbidity Units
pCi/l = picocuries per liter (a measure of radioactivity)

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.

WATER QUALITY TESTING RESULTS

The water quality information presented in the tables 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.

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Exceeds AL (Y/N)	Possible Source of Contamination
Lead (ppb)*	09-17-08	8	15	0	20	0	N	Corrosion of household plumbing systems
Copper (ppm)	09-17-08	0.3	1.3	1.3	20	0	N	Corrosion of household plumbing systems

* 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. Cherry Valley and Rochdale Water District 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.

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	6	1	0	Y	Naturally present in the environment
Fecal Coliform or *E.coli*	0	*	0	N	Human and animal fecal waste

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation (Y/N)	Possible Source of Contamination
Daily Compliance (NTU)	5	-----	1.40	N	Soil runoff
Monthly Compliance*	At least 95% < 1 NTU	100%	-----	N	
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.					
*Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.					

Regulated Contaminant	Date(s) Collected	Highest Result or Running Annual Average	Range	MCL	MCLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants							
Arsenic (ppb)	Quarterly	6	0 – 6	10	-----	N	Erosion of natural deposits; runoff from orchards or electronics production wastes
Barium (ppm)	5-12-10	0.007	-----	2	2	N	Erosion of natural deposits
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	Quarterly	1.6	0.1 – 1.6	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	Quarterly 2006	0.5	0 – 0.5	5	0	N	Erosion of natural deposits
Uranium (ppb)	Quarterly	12.8	1.2 – 12.8	30	0	N	Erosion of natural deposits
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs) (ppb)	Quarterly	102*	55 – 287	80	-----	Y	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly	30*	0 – 102	60	-----	N	Byproduct of drinking water disinfection
Free Chlorine (ppm)	Monthly	0.43*	0 – 5.03**	4	4	N	Water additive used to control microbes
Chlorite (ppm)	Daily	0.99	< 0.1 – 0.99	1	0.8	N	Byproduct of drinking water chlorination
Chlorine dioxide (ppb)	Daily	660	<100 –660	800	800	N	Water additive used to control microbes

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Inorganic Contaminants						
Sodium (ppm)	5-12-10	16.8	----	----	20	Natural sources; runoff from road salt; by-product of treatment process
Sulfate (ppm)	5-12-10	7.1	----	250	----	Natural sources
Iron (ppb)	5-12-10	70	---	300	---	Naturally occurring, corrosion of cast iron pipes

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Manganese (ppb)	5-12-10	250	---	50*	**---**	Erosion of natural deposits
Radiological Contaminants						
Radon (pCi/L)	Quarterly	290- 1300	758	----	10,000	Natural sources
Other Organic Contaminants - When detected at treatment plant as VOC residuals, not TTHM compliance						
Chloroform (ppb)	5-12-10	2.1	---	---	---	By-product of drinking water chlorination

* The EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

COMPLIANCE WITH DRINKING WATER REGULATIONS

The CVRWD is 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. Our water system and MassDEP monitor and record the effectiveness of actions taken in response to contaminant violations. The CVRWD received two notices of noncompliance in 2010.

Coliform Bacteria – July and August 2010

In July and August 2010 total coliform bacteria was found in the water system. 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. We did not detect any *E. coli* or fecal coliform in any samples taken. The cause of the total coliform bacteria was attributed to the higher water temperatures we experienced. We resolved this issue by increasing the disinfectant residual in the standpipes and distribution system, combined with extensive water main flushing in the areas of Main Street, Pleasant Street and Stafford Street. We conducted repeat sampling and had no further bacteria detections. The public was notified of this violation by newspaper and in their monthly water bill.

Total Trihalomethanes – November 2010

In November 2010 the District introduced additional disinfectant directly at the two standpipe locations to prevent a coliform bacteria reoccurrence. This temporary increase in disinfectant raised the concentration of total trihalomethanes (TTHMs) right before our scheduled sample for disinfection byproducts was collected. The high level of TTHMs in that sample brought our running annual average above the compliance level. The follow-up sample collected two weeks later showed that the levels of TTHMs had returned below the MCL. No further actions were required by MassDEP as the system had resumed its normal disinfection process. The public was notified of this violation by newspaper and in their monthly water bill. Some people who drink water containing trihalomethanes in excess of the MCL over many years, experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

IMPORTANT INFORMATION

Cross Connections

A cross connection is a connection between a drinking water pipe and a polluted or non-potable source. Fluctuation in water pressure can cause water to be siphoned or sucked backwards through pipes and hoses. Hoses are the most common extension of a plumbing system and the item most likely to cause an accidental poisoning of your water. Hoses are often connected to swimming pools, laundry sinks and lawn chemical sprayers. Water flowing backwards into your home will bring contaminants or poisons with it. To prevent this from happening, every hose faucet connection should have a device called a **Hose Bibb Vacuum Breaker**. These are inexpensive and are available from your local plumbing contractor or supplier. As required by Massachusetts Drinking Water Regulations, 310 CMR 22.22 (3) (b), the District has an approved Cross Connection Program Plan. This means that all cross connections in Cherry Valley and Rochdale Water District's businesses that are supplied by public water are surveyed by a certified backflow tester on an annual basis. For additional information on cross connections and the status of CVRWD's cross connection program, please contact us at (508) 892-9616.

CHERRY VALLEY AND ROCHDALE WATER DISTRICT
P.O. BOX 138
ROCHDALE, MA 01542

ADDITIONAL INFORMATION

Important Information about Leaks

Hole Diameter in Inches		Water wasted per month (gallons)	Water wasted per month (cubic feet)	Added cost to homeowner per month *
O	1/4	393,833	52,651	$3,806.18
O	1/8	98,666	13,190	$945.26
o	1/16	24,666	3,297	$228.05
₀	1/32	6,166	824	$58.87

* Based on CVRWD current rates.

Having difficulty paying your bills?
We understand that due to the current economic status, many people are facing difficult decisions and are struggling to make ends meet. We want to inform the CVRWD customers, that if you are having difficulty paying your monthly water bill, we ask that you contact the District office at 508-892-9616 to communicate your situation. We are more than happy to help you to establish a payment plan or provide you with conservation suggestions that could reduce your future water bills. Again, we understand that everyone is experiencing hardships and we want to express our willingness to assist you.

Meter Tampering
In 2010 the Massachusetts Senate and House of Representatives voted to amend the existing Water Company Meter Act. This amendment allows the increase in penalties associated with meter tampering and destruction. The penalty of such act can be triple the amount of damages sustained or $1,000.00, whichever is greater. The $1,000.00 penalty does not include the cost of the meter, water used, labor, equipment repair and replacement.