

# 2012 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**

148 Henshaw Street, Rochdale, MA 01542 Address:

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Telephone #: (508) 892-9616 Fax #: (508) 892-4371

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Contact Person: Michael F. Knox, Superintendent

Board of Commissioners: Kevin M. Bergin, Chairman

Treasurer: Jennifer M. Wood Arthur E. J. Levesque Clerk: Carla A. Davis

Michael L. DellaCava, Sr.

# **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 Massachusettscertified operators who oversee the routine operation of the system. As part of our ongoing commitment to you, in November 2012, the District completed the inspection and cleaning of the filtered water clearwell. The project was completed and clearwell returned to service on November 15, 2012. In April of 2013, the District completed upgrades and media replacement of the Grindstone Well. The project was completed and the well and its Arsenic, Uranium and Radon Filtration System were returned to service on June 1, 2013. In March 2013, the District started the first of the required two season (cold and warm water) Pilot Study to determine the design parameters, unit sizes and efficiencies for upgrades to the Henshaw Water Treatment Facility. Two model slow sand filters were constructed to evaluate the effectiveness of a Miex™ treatment system and granulated carbon treatment system. The district experienced problems with the "ripening" of the sand media in the model slow sand filters which delayed the cold water seasonal study. The District has met with MassDEP and plans to move forward and complete the sand "ripening" process and then conduct the "warm water" evaluation followed by and return to the "cold water" evaluation in 2014. In May 2013, the District voters approved funds to conduct the first cycle of system wide "Uni-directional Flushing" and completed by July 2013.

# **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 2<sup>nd</sup> 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. However, the groundwater source has been offline since April 2011 while improvements were being made:

Source Name	MassDEP Source ID#	Source Type	Location of Source
Henshaw Pond	2151001-01S	Reservoir	148 Henshaw Street, Leicester, MA
Grindstone Well	2151001-01G	<b>Ground Water</b>	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/eea/docs/dep/water/drinking/swap/cero/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:

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

<u>Inorganic contaminants</u> - 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.

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

<u>Organic chemical contaminants</u> - 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.

<u>Radioactive contaminants</u> - 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**

<u>Maximum Contaminant Level (MCL)</u> – 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.

<u>Maximum Contaminant Level Goal (MCLG)</u> –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.

<u>Maximum Residual Disinfectant Level (MRDL)</u> -- 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.

<u>Maximum Residual Disinfectant Level Goal (MRDLG)</u> -- The level of a drinking water disinfectant (chlorine, chlorine, 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.

90<sup>th</sup> Percentile – Out of every 10 homes sampled, 9 were at or below this level.

ppm = parts per million, or milligrams per liter (mg/l) NTU = Nephelometric Turbidity Units

ppb = parts per billion, or micrograms per liter (ug/l) pCi/l = picocuries per liter (a measure of radioactivity)

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

<u>Massachusetts Office of Research and Standards Guideline (ORSG)</u> – 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	90 <sup>TH</sup> percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Exceeds AL (Y/N)	Possible Source of Contamination
Lead (ppb)	9-20 to 9-28-11	7*	15	0	20	1	N	Corrosion of household plumbing systems
Copper (ppm)	9-20 to 9-28-11	0.4	1.3	1.3	20	0	N	Corrosion of household plumbing systems

<sup>\*</sup> 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 home plumbing. The Cherry Valley & Rochdale Water District is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing and plumbing components. When your water is unused for several hours, you can minimize the potential for lead exposure by running 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 <a href="https://www.epa.gov/safewater/lead">www.epa.gov/safewater/lead</a>.

Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation (Y/N)	Possible Source of Contamination
Daily Compliance (NTU)	5		2.00	N	Soil runoff
Monthly Compliance*	At least 95% < 1 NTU	98%		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									
Nitrate (ppm)	5-9-12	0.08		10	10	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks		
Barium (ppm)	5-9-12	0.01		2	2	N	Erosion of natural deposits		
Radioactive Contamina	nts								
Gross Alpha Activity (pCi/l)	8/8/2012	0.24		15	0	N	Erosion of natural deposits		
Uranium (ppb)	3-18-11 & 7-13-11	0.9	0 – 0.9	30	0	N	Erosion of natural deposits		
Disinfectants and Disin	fection By-F	Products							
Total Trihalomethanes (TTHMs) (ppb)	Monthly	95*	62 - 111	80		Y	Byproduct of drinking water chlorination		
Haloacetic Acids (HAA5) (ppb)	Quarterly	1*	0 - 0	60		N	Byproduct of drinking water disinfection		
Free Chlorine (ppm)	Monthly	0.26*	0 – 1.89	4	4	N	Water additive used to control microbes		
Chlorite (ppm)	Daily	0.97	< 0.01 – 0.97	1	0.8	N	Byproduct of drinking water chlorination		
Chlorine dioxide (ppb)	Daily	760	<100 -760	800	800	N	Water additive used to control microbes		

<sup>\*</sup> Highest running annual average (RAA) is the highest average of four consecutive quarters.

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG or Health Advisory	Possible Source
Sodium (ppm)	5-9-12	21*			20	Natural sources; runoff from road salt; by-product of treatment process
Sulfate (ppm)	5-9-12	6.85		250		Natural sources

<sup>\*</sup> Sodium-sensitive individual, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled.

## **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 notices of noncompliance for six violations in 2012. In addition, we have signed a Consent Order that requires the CVRWD to take steps to bring the water system into compliance.

#### Contact Time "CT" - November 15, 2012 and December 27, 2012

"Contact Time" - In order to ensure proper disinfection, water in the treatment plant must be in contact with chlorine or a similar disinfectant for a minimum amount of time. On November 15, 2012, this did not occur.

November 15, 2012: As you may recall a Public Notice Declaring a Water Use Restriction for November 12, 2012 to November 19, 2012 was direct mailed to you in the November 1, 2012 Water Bill. The notice detailed the fact that the Henshaw Water Treatment Facility would be offline to allow crews to clean, inspect and disinfect the filtered water clear well. On November 13, 2012 contractors working for the District completed the cleaning and inspection of the filtered water clear well. Prior to placing the clear well online, District personnel took preventive measures by introducing a disinfectant directly into the clear well during the refilling process. On November 14, 2012, District personnel collected samples for bacteria analysis to further ensure there was no presence of bacteria. On November 15, 2012, the District received confirmation from a MassDEP certified Lab that there was no presence of bacteria in the filtered water stored in the clear well. The Henshaw Water Treatment Facility was placed back online on November 15, 2012. Unfortunately, due to the activities previously described, the Henshaw Water Treatment Facility did not meet the "Contact Time" standard as measurements of disinfectant residual levels / "contact time" at the point of entry into the system were below the standard during the first test cycle.

December 27, 2012: As part of the daily operations of the Henshaw Water Treatment Facility operators are required to measure the disinfectant residual levels / "contact time" at regularly scheduled intervals throughout the day and then calculate the "contact time" to confirm compliance with the Surface Water Treatment Rule. On December 27, 2012, all measurements met the compliance requirements until the last measurement of the day. At the last measurement there was a drop in the water temperature significant enough to change the fractional calculation of the disinfectant measured versus "contact time" therefore resulting in the treatment technique violation. The operator made adjustments to increase the dosage of the disinfectant and a follow up measurement verified that the required "contact time" had been achieved.

Both situations did not require that you take immediate action. If it had been, you would have been notified immediately.

District personnel routinely monitor and measure the disinfectant residual levels / "contact time" daily to ensure the standard have been met to date.

#### **Total Trihalomethanes – Four Quarters in 2012**

Since December 2012 our water system has been in noncompliance with the Drinking Water Standard for Total Trihalomethanes (TTHMs). In all four quarters of 2012, our system exceeded the standard or Maximum Contaminant Level (MCL) for TTHMs. The standard for TTHMs is 80 parts per billion and is based upon the Running Annual Average (RAA) results of four consecutive quarters. Trihalomethanes (THMs) are formed when chlorine added to the water for disinfection reacts with natural organic matter commonly found in surface waters. Our MCL violations resulted from the introduction of additional disinfectant at the Water Treatment Facility to manage turbidity levels. The public was notified of this violation by newspaper and in their monthly water bills. 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.

# **Previous 2011 Compliance with Drinking Water Regulations Violations**

The CVRWD received notices of noncompliance for seven violations in 2011. Those violations included: Turbidity – February, March and July 2011; Coliform Bacteria – November 2011 and Total Trihalomethanes – Four Quarters in 2011.

# Administrative Consent Order Action Plan

The DEP issued the Cherry Valley and Rochdale Water District (the "District") an Administrative Consent Order (ACO) in April 2012 for violations of the Surface Water Treatment Rule (SWTR) specifically "turbidity" and "contact time", the Disinfectant/Disinfection Byproduct Rule (DBPR) specifically Total Trihalomethanes and the Total Coli form Rule (TCR) specifically "total coli form bacteria". The DEP ACO directed the District to perform several upgrades and expansion of the existing Water Treatment Facility for the Henshaw Pond and the Grindstone Well water supplies.

The issues to address immediately consist of a partial rebuilding of Slow Sand Filter No. 2 including replacement of gate and control valves and piping; replacement of filter media, valves and controls for the Grindstone Well Treatment System and inspection and cleaning of the water treatment facility Clear Well structure. These actions will bring the Grindstone Well Treatment System into compliance with the Arsenic Rule and will further enable the District time to complete the long term projects that will bring the Henshaw Treatment Facility into compliance with the SWTR, DBPR and the TCR.

The long term projects consist of a pilot treatment study to determine the design parameters, unit sizes and efficiencies for the upgrades to the water treatment facility followed by the design and construction of a Miex<sup>™</sup> treatment system; permanent rebuilding of Slow Sand Filters No. 1 and 2 including the replacement and upgrade of the filter under drain system and repair to the concrete Slow Sand Filter structure; design and construction of a Chlorine Contact Chamber and Pump Chamber and several miscellaneous engineering projects consisting of updating the Feasibility Study, constructing and Extended Period Simulation computer model of the water distribution system and revising the existing Watershed Protection Plan. The total cost of the ACO project is \$ 3.5 million dollars.

In November 2012, the District completed the inspection and cleaning of the filtered water clearwell. The project was completed and clearwell returned to service on November 15, 2012. In April of 2013, the District completed upgrades and media replacement of the Grindstone Well. The project was completed and the well and its Arsenic, Uranium and Radon Filtration System were returned to service on June 1, 2013. In March 2013, the District started the first of the required two season (cold and warm water) Pilot Study to determine the design parameters, unit sizes and efficiencies for upgrades to the Henshaw Water Treatment Facility. Two model slow sand filters were constructed to evaluate the effectiveness of a Miex™ treatment system and granulated carbon treatment system. The district experienced problems with the "ripening" of the sand media in the model slow sand filters which delayed the cold water seasonal study. The District has met with MassDEP and plans to move forward and complete the sand "ripening" process and then conduct the "warm water" evaluation followed by and return to the "cold water" evaluation in 2014. In May 2013, the District voters approved funds to conduct the first cycle of system wide "Uni-directional Flushing" and completed by July 2013.

# 2010 Sanitary Survey Update

In 2010 MassDEP made note of items that did not reflect good water system practices and, if left unresolved, could lead to problems that are more serious. To that end, MassDEP cited the following items to be corrected by CVRWD:

Submit to the department documentation that the chemical feed systems for chlorine (disinfection) and potassium hydroxide (pH control) comply fully with the Critical Chemical Safety Control Strategy with regards to interlocks and Alarms and evaluate the cause of the arsenic removal system failure and submit a plan to the Department detailing steps that will be taken to reduce the arsenic level below the MCL and timelines for completion.

Compliance with the Critical Chemical Safety Strategy with regards to interlocks and alarms monitoring the application of chlorine and hydroxide was completed in September of 2011 in conjunction with the SCADA – Chemical Safety Project. The project brought the CVRWD into compliance with the Critical Chemical Safety Control Strategy providing interlocks and alarms monitoring the application of chlorine and potassium hydroxide.

Compliance with the arsenic removal system was accomplished in April of 2013. The District completed upgrades and media replacement of the Grindstone Well and the well and its Arsenic, Uranium and Radon Filtration System were returned to service on June 1, 2013.

## **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.

# Mandatory Water Ban - May 1, 2013 until September 30, 2013

The Board of Water Commissioners voted on June 13, 2011 to create Article X Outdoor Water Use Regulation which mandates water use restrictions effective **May 1, 2013 until September 30, 2013.** The new Regulation is in response to the **ANNUAL** conservation conditions set forth in the District's Water Management Act Permit issued by MassDEP. The purpose of the Regulation is to protect, preserve and maintain public health, safety, welfare and the environment by ensuring an adequate supply of water for drinking and fire protection and to protect the quality and quantity of water in local aquatic habitants such as ponds, rivers and wetlands.

A copy of this notice was distributed to all building occupants, tenants and water users.

#### **Water Use Restrictions**

Mandatory conservation which prohibits the following non-essential outdoor activities from occurring between the hours of 9:00 AM and 5:00 PM.

- a). irrigation of lawns via automatic lawn sprinkler systems;
- b). washing of vehicles except in a commercial car wash; and
- c).washing of exterior building surfaces, parking lots, driveways or sidewalks, except as necessary to apply paint, preservatives, stucco, pavement or cement.

#### **Definitions**

Automatic sprinkler system shall mean any system for watering vegetation other than a hand-held hose or bucket. Any person violating this by-law shall be liable to the District in the amounts listed below:

1). First violation: Written warning

2). second violation: \$200.00 3). Third violation: \$300.00

4). Fourth and subsequent violations: \$500.00

Each day of violation shall constitute a separate offense. Fines shall be recovered by complaint before District Court, or by non-criminal disposition in accordance with section 21D of chapter 40 of the general laws. For purposes of non-criminal disposition, the enforcing person shall be any police officer of the town or the water superintendent or the superintendent's designee. If a State of Water Supply Emergency has been declared the water Commissioners may, in accordance with G.L. c 40, s. 41A, shut off water at the meter or the curb stop.

A complete copy of Article X- Water Use Restriction of the Cherry Valley and Rochdale Water District Rules and Regulations can be viewed at the district's web site www.cvrwd.com

#### Water Conservation Public Outreach Information Tips and Useful Links:

Water conservation is an important way to protect our drinking water by ensuring that we don't diminish our resource. As much as 97% of the world's water is salt water, leaving 3% freshwater, two-thirds of which is stored as icecaps or glaciers. This laves 1% of the world's water for drinking. Needless to say, water conservation will help all us sustain the precious 1%.

Cherry Valley and Rochdale Water District water conservation public outreach information, tips and useful links to other water conservation web sites will be published and updated on www.cvrwd.com

#### **Other Conservation Links:**

http://www.wateruseitwisely.com/100-ways-to-conserve/index.php

http://eartheasy.com/live water saving.htm

http://www.ecy.wa.gov/programs/wr/ws/wtrcnsv.html

#### **Water Conservation Tips for Residents**

# **Outdoors**

- Water your lawn only when it needs it. Step on your grass. If grass springs back, when you lift your foot, it doesn't need water.
- Automatic lawn sprinklers: (includes all above and below ground sprinklers-see definition above) are very popular, and many people have installed underground automatic sprinkler systems. While this can be positive, it can also create serious problems if not installed properly. Any landscaping company will tell you that the best time to water your lawn is in the early morning or during the evening. Watering your lawn during the day wastes water due to the evaporation that occurs. Some experts say that as much as 50% of the water will evaporate before it soaks into the ground on a hot sunny day.

- Maximize the use of natural vegetation and establish smaller lawns. For portions of your lot where a lawn and
  landscaping are desired, ask your local nursery for tips about plants and grasses with low water demand (such as
  creeping fescue). Consider planting more trees, shrubs, ground covers, and less grass. Shrubs and ground
  covers provide greenery for much of the year and usually demand less water. Use native plants in flower beds.
  Native plants have adapted to rainfall conditions in New England and often provide good wildlife habitat. Cluster
  plants that require extra care together to minimize time and save water.
- Plant in the fall when conditions are cooler and rainfall is more plentiful.
- When mowing your lawn, set the mower blades to 2-3 inches high. Longer grass shades the soil improving moisture retention, has more leaf surface to take in sunlight, allowing it to grow thicker and develop a deeper root system. This helps grass survive drought, tolerate insect damage and fend off disease.
- Apply mulch around shrubs and flower beds to reduce evaporation, promote plant growth and control weeds.
- Add compost or an organic matter to soil as necessary, to improve soil conditions and water retention.
- Collect rainfall for irrigation in a screened container (to prevent mosquito larvae growth).
- Use a commercial car wash that recycles water.
- Let Mother Nature wash your car when it rains.
- Always use a broom to clean walkways, driveways, decks and porches, rather than hosing off these areas.
- Install covers on pools and spas and check for leaks around your pumps.
- Winterize outdoor spigots when temperatures dip below freezing to prevent pipes from leaking or bursting.

#### In the Kitchen

- When cooking, peel and clean vegetables in a large bowl of water instead of under running water.
- Collect the water you use for rinsing fruits and vegetables, then reuse it to water houseplants.
- Fill your sink or basin when washing and rinsing dishes.
- Soak pots and pans instead of letting the water run while you scrape them clean.
- Only run the dishwasher when it's full.
- When buying a dishwasher, select one with a "light-wash" option.
- Only use the garbage disposal when necessary (composting is a great alternative).
- Install faucet aerators.

#### In the Bathroom

- Shorten your shower by a minute or two and you'll save up to 150 gallons per month.
- Turn off the water to brush teeth, shave and soap up in the shower. Fill the sink to shave.
- Repair leaky toilets. Add 12 drops of food coloring into the tank, and if color appears in the bowl one hour later, your toilet is leaking.
- Upgrade older toilets with water efficient models.
- Install a toilet dam, faucet aerators and low-flow showerheads.

#### Laundry

- Run full loads of laundry.
- When doing laundry, match the water level to the size of the load.
- When purchasing a new washing machine, buy a water saving model that can be adjusted to the load size.
- Washing dark clothes in cold water saves both on water and energy while it helps your clothes to keep their colors.

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

1ST CLASS MAIL U.S. POSTAGE P A I D ROCHDALE, MA 01542 PERMIT #12

## **ADDITIONAL INFORMATION**

#### **Important Information about Leaks**

Hole Diamete	r in Inches	Water wasted per month (gallons)	Water wasted per month (cubic feet)	Added cost to homeowner per month *	
0	1/4	393,833	52,651	\$6,057.75	
0	1/8	98,666	13,190	\$1,480.28	
0	1/16	24,666	3,297	\$344.20	
o	1/32	6,166	824	\$94.19	

<sup>\*</sup> 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.