



Dear Rowley Residents,

We are pleased to present a summary of the quality of the water provided to you during the calendar year 2012. The Safe Drinking Water Act (SDWA) requires that all utilities issue an annual "Consumer Confidence Report" to customers in addition to other notices that may be required by law. As in years past, we are committed to the delivering the best -quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education.

Our Rowley water source, being well water, tends to be high in minerals. Iron, manganese and hardness are the most troublesome. Some staining can occur in dishwashers and washing machines. Chlorine products should not be used in washing. Vitamin C (Tang, Glisten), Iron-Out, Rover and Rust-Be-Gone products containing sodium hydrosulfite and/or sodium bisulfate are helpful to remove stains.

All residents have onsite sewage disposal utilizing leaching systems. Care of this system should be practiced. This is extremely important within our aquifer area where chemicals could affect the water quality. Do not use tank treatments or dispose of toxic chemicals down the drain. Pump your system regularly. Be careful with crankcase oil and antifreeze flushing. One gallon of petroleum-based products can contaminate approximately 750,000 gallons of water disposal.

Community Participation

You are invited to participate in our monthly Board of Water Commissioners meetings and voice your questions and concerns about your drinking water and water supply. All meetings are posted at the Town Clerk's office at Town Hall, 139 Main Street and on the Rowley Water Department web page www.rowleywater.com . Water issues, including projects and upgrades, are also presented at Town Meeting each year. Please contact John Rezza, Water Superintendent, at 978-948-2640.

How much water is lost to a dripping faucet?

Dripping faucets waste a precious resource and its costs you money. As an example, if you have a faucet that drips 60 times a minute, this adds up to over 3 gallons each day or 1,225 gallons each year.

Administrative Consent Order

An Administrative Consent Order with Penalty was issued to the Town of Rowley on April 1, 2013. This was issued in response to the Town failing to notify Massachusetts Department of Environmental Protection (“Mass DEP”) in an emergency and for failing to operate and maintain its system in a manner that ensures the delivery of safe drinking water to consumers. Town officials were made aware of two employees who were dressing deer within the Well House #3 on December 7, 2012, but did not notify Massachusetts DEP until February 7, 2013. This constituted an emergency as it is in violation of Massachusetts Drinking Water Regulations. Upon notification to Massachusetts DEP, the water department responded to the incident by shutting down Well #3, and collecting raw water as well as distribution water samples. Sample results were positive for total coliform in the raw water at Well #3, but negative for E. coli. The distribution samples were negative for both total coliform and E. coli. Additional measures included inspection of the area surrounding the affected well, and cleaning and disinfecting the interior of the well building.

Source Water Assessment and Protection

The Source Water Assessment and Protection (SWAP) program, established under the Federal Safe Drinking Water Act, requires every state to inventory land uses within the recharge areas of all public water supply sources. All of the sources in Rowley have a “high” susceptibility to contamination due to the absence of hydrological barriers (I.E., a confining clay layer) that could prevent migration of contamination into the water system. A source’s susceptibility to contamination does not, however, imply poor water quality.

In Brief, Zone II contains potential sources of contamination, which, if present, could migrate and reach our source water. In Rowley, Zone II is primarily a mixture of forest, agriculture, and residential land.

Where Does My Water Come From?

The Town of Rowley has three municipal wells sunk about 50 feet deep into an underground source of water off the Parker River Basin.

Source Name	MassDEP Source ID	Source Type	Location
Well 2	3254000-02G	Groundwater	Haverhill Street
Well 3	3254000-03G	Groundwater	Boxford Road
Well 5	3254000-04G	Groundwater	Pingree Farm Road

The town owns the land around these Wells and restricts any activity that could contaminate them. After the water comes out of the wells, we treat it to remove corrosive properties and add disinfectant to protect you against microbial contaminants. Source water assessments and yearly testing reports are available at the Water Department 401 Central Street, Rowley, and MA 01969.

Definitions

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

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

MCL (Maximum Contaminant Level): The highest level of contaminant that is allowed in drinking water. MCL are set as close to the MCLGs as feasible using the best available treatment technology. Secondary MCLs (SMCL) are set for the control of taste and odor.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units) Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

PPB (parts per billion): One part substance per billion parts water (or micrograms per liter).

PPM (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Sampling Results

During the past year we have 217 water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The water quality information presented in the table 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 table.

	MCL	Rowley Water	Range	Sample Date	Violation	Typical Source
Secondary Contaminants	* = not regulated					of Contaminants
Manganese	0.05 mg/l*	0.5	0-0.54	11/12/12	N	Erosion of natural deposits
Iron	0.3 mg/l*	0.23	0-0.38	11/12/12	N	
Aluminum	0.2 mg/l*	0.06	0-0.07	11/12/12	N	
Chloride	250 mg/l*	142	51-220	11/12/12	N	
Magnesium	None*	6.6	4.6-7.7	11/12/12	N	
Sulfate	250*mg/l	18	16-22	11/12/12		
Sodium	None*	45	14-100	4/25/12	N	Street runoff, erosion of natural deposits
Regulated Contaminants						
Volatile Organic Contaminants						
Tetrachloroethylene	5ppb	0.66	0.51-0.82	4/25/12	N	Vinyl AC Pipe
Inorganic Contaminants						
Arsenic	0.01 ppm	0.0044	0-0.0044	4/25/12	N	Bedrock formations
Barium	2 ppm	0.013	0.0064-.018	4/25/12	N	Bedrock formations
Nitrate	10ppm	1.4	0.5-2.4	4/11/12	N	Natural deposits, discharge
Nitrite	1ppm	ND		4/11/12	N	from fertilizers
Perchlorate	2 ppm	ND		12/26/12	N	pyrotechnics, explosives
Disinfection Byproducts						
Total Trihalomethanes	80ppb	22	13-32	8/6/12	N	Byproduct of chlorination
Haloacetic Acids	60ppb	5.6	5-6.2	8/6/12	N	
Sodium Hypochlorite		Avg.				
At wells	4 ppm	1.2	.80-1.7	Daily	N	Disinfectant
Dist. System	4 ppm	0.46	0.08-1	Monthly	N	Disinfectant
Lead and Copper		90th percentile				
Lead	15ppb	0.0049	0-0.014	8/20/12	N	Corrosion of household
Copper	1.3 ppb	0.84	0.08-0.96	8/20/12	N	plumbing systems
Total Coliform	# of samples	Positives	MCL			
	84	0	1	monthly	N	Naturally present in environment

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised person 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriated means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791 or ww.epa.gov/drink/hotline/.

Lead and Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Town of Rowley is responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. Our system is in compliance with EPA's Lead and Copper Rule. Lead and Copper are below action levels. If the water in your home has been dormant for more than six hours, EPA recommends flushing (running) the faucet for two to three minutes. This will remove Copper and Lead levels above recommended limits. 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 at 1-800-426-4791 or at www.epa.gov/safewater/lead.

Nitrate

In drinking water levels above 10ppm is a health risk for infants of less than six months of age. High Nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Manganese

Manganese's is a nutrient that is part of a healthy diet. Drinking water may naturally have manganese, and when concentrations are greater than 50 ug/L, the water may be discolored and taste bad. Over a lifetime, the United States Environmental Protection Agency (U.S. EPA) recommends that people drink water with manganese levels less than 300ug/L and over the short term, U.S. EPA recommends that people limit their consumption of water with levels over 1000 ug/L, primarily due to concern about possible neurological effects. Children up to 3 years of age should not be given water with manganese over 300 ug/L, nor should formula for infants be made with that water.

Fluoride is not added to our water supply.

Substance that could be in the water

To ensure that tap water is safe to drink, the Massachusetts Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations limiting the amount of certain contaminants in the 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, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lake, 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. Substances 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, or wildlife:

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production , mining, or 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 which may also come from gas stations, urban storm water runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities

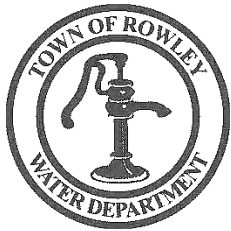
More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Questions?

For more information about this report, or for any questions relating to your drinking water, please contact John Rezza, Water Superintendent at 978-948-2640

Cross Connections Control

Town of Rowley Water Department
PO Box 29
Rowley, MA 01969



Annual Quality Report

Water testing performed in

2012

Presented by: Town of Rowley Board of Water Commissioners

Scott Martin, Chairman

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