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Water Commission  
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## Mendon Water Department 2011 Annual Consumer Confidence Report Public Water Supply Number 217900

Consecutive System Interconnected on Cape Road at Town Line Between  
Hopedale and Mendon

The Mendon Water Commission has prepared this report to provide you with important information about your public water system. Since the Town of Mendon purchased your water from the Town of Hopedale since June 1, 2005. If you have any questions about the water you are presently using, please do not hesitate to contact Missy Kakela-Bottoms at the above phone number or email address. This water is fundamental to your lives. It cannot be taken for granted. You should care about where it comes from, what's in it, and what you, as an individual, can do to protect and conserve this precious and fragile resource.

Board of Water Commissioners  
Dwight Watson, Chairman  
Vincent Cataldo  
Robert Gilchrist

Timothy Watson, Certified Water Operator  
Missy Kakela-Bottoms, Sr. Administrative Assistant

The Mendon Water Commission encourages you to attend regularly scheduled meetings. An important topic of ongoing discussion will concern the establishment and financing of a future permanent water supply for East Mendon. The commissioners meet in the Mendon Town Hall usually every other Tuesday at 7:00 p.m. Please contact the office to confirm meeting dates. Also, as the situation warrants, public hearings will be held and you will be notified through the news media or by mail.

## **Improvements and Accomplishments**

- Annual flushing of fire hydrants and exercising of hydrant gates Hydrant replacement on Cape Road.
- Replaced meters at different residences
- Cross connections devices surveyed and documented

## **In Progress**

- The Commissioners are still moving forward looking for a more cost affective supplier and long-term agreement.

## **Regulations**

Rules and Regulations were updated on March 5, 2012. Copies are available in the Board of Health/Water Commission office in the lower town hall.

### **What is the Source of Your Water?**

Your water comes from two sources from the Town of Hopedale. These two wells are gravel packed wells, which utilizes naturally filter water.

### **Where Are These Sources Located?**

The main source is the Mill Street well field located within the Hopedale golf course. The second source is the Green Street well field, which is located off of Green Street and is typically used during high demand times.

### **What Contaminants are Monitored?**

Water quality is constantly monitored by Hopedale Water Department and DEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required. Beyond that, the water that is actually in the Mendon system is monitored monthly for coliform bacteria and yearly for the by products of chlorine, trihalomethanes and haloacetic acids. Lead and copper testing is done every other year and asbestos every seven years.

### **Is Any Drinking Water 100% Pure?**

No, not even bottled water is 100% pure. 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 (1-800-426-4791).

### **If You Have Health Problems, Be Sure to Read This!**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are 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/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 (1-800-426-4791).

### **How Do Those Contaminants Get In Your Water?**

The 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 human activity. Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, 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** may come from a variety of sources such as agriculture, urban storm water runoff, and residential use.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** can be naturally occurring or be the result of oil and gas production and mining activities.

## Storm water runoff

Since you will most likely be getting your water from a source very close to your home, you should know that storm water runoff is something that, according to the EPA, affects 50% of water quality problems. When it rains, the water flows over lawns and washes away pesticides, herbicides and fertilizers. When it rains, the water flows over driveways, parking lots and roads and washes away motor oil, tire dust, pest waste and other pollutants. These pollutants either directly or by means of a storm drain go into the groundwater and eventually to the river. The water you drink will be coming from that groundwater. This, in turn, can affect your health and increase drinking water treatment costs.

We have enclosed some information explaining how you can help alleviate this problem.

## Ways to Prevent Storm Runoff Contamination

### Household Hazardous Waste

Pollution: Many household products we use daily contain toxic materials that can threaten public health and the environment. Drain and oven cleaners, paint thinners, and bathroom cleaners are just a few of the items we use that can cause serious health and environmental problems.

Solution:

- Dispose of all unused household hazardous wastes at your local Household Hazardous Waste Day check with the Board of Health
- Use natural alternatives

### Fertilizers

Pollution: Fertilizers contain large amounts of chemicals that are good for lawns and plants when used properly. The main chemicals contained in fertilizers are nitrogen and phosphorus. These two chemicals can cause accelerated growth of aquatic plants in leading to oxygen depletion and large fish kills.

Solution:

- If you spill fertilizers, sweep them up, do not wash them into the streets and storm drains.
- Never apply fertilizers before a heavy rain is anticipated.
- Do not over apply fertilizers. More application does not mean a greener lawn, it means more watering and mowing.

### Pesticides and Herbicides

Pollution: Pesticides and herbicides contain toxic materials that pose both environmental and human health risks. Humans, animals, aquatic organisms, and plants can be severely threatened by these chemicals.

Solution:

- Minimize the use of pesticides and herbicides and use alternatives if possible

- Make sure that all directions and warnings are read before use.

## **Paint**

Pollution: When improperly used, paint can be poison people and animals.

Solution:

- Donate your old paint to community groups.
- Dispose of oil-based paints at your household hazardous waste day

## **Yard Waste**

Pollution: Yard waste can clog storm drains making it difficult to carry away excessive amounts of water during storms.

Solution:

- Remove soil, leaves, and grass clippings from your driveway, streets, or sidewalks
- Compost grass clippings and other plant waste.

## **Pet Waste**

Pollution: If left on yards, pet waste can release untreated bacteria and other harmful materials into streams.

Solution:

- Bury or flush pet waste down the drain.

## **Motor Oil**

Pollution: Motor oil can damage or even kill aquatic vegetation and animal life. An oil slick contaminating two million gallons of drinking water – can develop from one quart of oil.

Solution:

- Recycle your used motor oil.
- Never pour used motor oil down a storm drain or onto your grass or driveway.

## **Anti-Freeze**

Pollution: Anti-Freeze can seriously deplete oxygen from water and can be harmful to all plant and animal life; including humans.

Solution:

- Recycle your used anti-freeze
- Do not mix used anti-freeze with any other material.

## **Cross Connections**

Fluctuation in water pressure can cause water to be siphoned or sucked backwards through pipes and hoses. A cross connection occurs whenever a potable drinking water line is directly or indirectly linked to a piece of equipment or piping containing non-potable water. 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 Mendon Water Department has an approved Cross Connection Program Plan. This means that all cross connections in Mendon businesses that are supplied by public water are surveyed by a certified backflow tester on an annual basis. These records are available for your inspection at the Mendon Board of Health office in the lower town hall.

## **How Do the DEP and EPA Protect Your Water?**

In order to ensure that tap water is safe to drink, the 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

the Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## What Are These Limits?

**Maximum Contaminant Level or 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 or 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.

**Action Level or AL:** The highest level of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

**Office of Research and Standards or ORS:** 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.

## What Can You Do to Protect Your Water?

Again, this is especially important if the source of your water is soon to be local. Pesticides and herbicides are contaminants you do have under your control. The chemicals that kill those grubs and dandelions and the fertilizers that make your grass the envy of your neighbors, sooner or later can get into the groundwater. There are safe, organic products that can accomplish the same results. Please consider the millions of pounds of chemicals that are spread over lawns each and every year. Speak to your local lawn products supplier and request that they stock these products. There are alternatives to chemical pesticides and herbicides. There are even alternatives to the lawn that costs you so much time and money!

Another thing you can control is the maintenance of your septic system. The septic tank should be emptied once every three years. Do not pour any toxic or hazardous materials, including unused prescription medicine, down your drain. And please resist the temptation to dump them onto the ground. They can contaminate the groundwater. Be responsible! Store them in a safe place and bring them to the Household Hazardous Waste Day, call 508-634-2656 for more information.

If your septic system is problematic because of high ground water table, lack of space, etc. New technology has come up with creative and innovative alternative solutions. For more information, please contact the Mendon Board of Health.

## What Are Those Other Abbreviations?

**ppb (parts per billion):** One part substance per million parts of water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts of water (or micrograms per liter).

**PCi/l:** Picocuries per liter, a measure of radioactivity.

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

**90<sup>th</sup> Percentile:** Lead and copper compliance is based on the 90<sup>th</sup> percentile value, which is the highest level found in 9 out of every 10 homes sampled.

**Unregulated Contaminants:** Unregulated contaminants are substances without MCLs for which EPA requires monitoring. For some of these substances, the Massachusetts Office of Research and Standards (ORS) has developed state guidelines or secondary MCLs.

Water quality test results for contaminants that were detected during the calendar year or the most recent monitoring period for each contaminant group. The presence of these contaminants does not necessarily indicate that the water poses a health threat.

Radioactive Contaminants	Year Sampled	MCL	MCLG	Amount Detected	Range Low-High	Violation	Possible Sources
Gross Alpha (pCi/l)							
Beta/Photon Emitters (pCi/l)						N	
Radium 226 & 228 combined (pCi/l)							
Volatile Organic Contaminants							
Total Trihalomethanes (TTHMs)	2011	80	NA	24.6		N	
Haloacetic acids (HAA5)	2011	60	NA	9.3		N	
Chlorine (ppm)	2011	0.04	.03	4	4	N	
Lead and Copper		Action Level	MCLG	Amount Detected (90 <sup>th</sup> % Title)		Violations	Possible Sources
Lead	2011	15	0	1		N	
Copper	2011	1.3	1.3	00.777		N	

Lead: It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels you may wish to have your water tested and flush your tap for 2 minutes before using tap water. The Town of Mendon purchases the water from the Town of Hopedale. Questions about water quality should be directed to the Hopedale Water Department at 508-634.2203 ext. 212.

## Violations

No Violations

## Water Conservation Why Should I Care?

You should not only care, you should be concerned. Our population is rapidly increasing and more and more people are using a finite supply of water. We have the same amount of water (less than one percent of the world's water is available for our use) that we had 3 million years ago. But 3 million years ago, we did not have 6 billion people using that water. Our state is fortunate to have ample rainfall most years. That does not mean we cannot run out or that rivers cannot go dry. Some towns are taking steps to outlaw lawn sprinklers. Some towns have permanent water bans. Some towns are contracting for desalinization. And most towns charge exceptionally high rates to customers who use large amounts of water.

During the growing season, 50% of water usage is for lawn irrigation. Much of this is not only unnecessary but can be detrimental to your lawn.

## Conserving Water in the Home

1. Leakage accounts for five to ten percent of all residential water consumption. The leaks are commonly due to worn faucet washers or faulty toilet tank valves.
2. Eliminating these leaks are easy and inexpensive ways to reduce your water consumption.
3. Purchase water saving devices, which are inexpensive and easy to install. Examples are low flush toilets, water saver showerheads.

## Manganese Consumer Confidence Reporting Language

Manganese is a naturally occurring mineral found in rocks, soil and groundwater and surface water. The USEPA and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for

manganese of 0.05 mg/L (50 micrograms per liter (ug/L) or 50 parts per billion (ppb)). At levels, greater than 0.05 mg/L, the water may appear brown, taste unpleasant and may leave black stains on bathroom fixtures and laundry. While manganese is part of a healthy diet, it can be harmful if consumed in large concentrations.

EPA has also set a health guideline for lifetime exposure to manganese in drinking water of 0.3 mg/L (300 ppb). EPA considered this level to be a protective limit for adults from potential neurological effects over a lifetime of exposure. For short-term 10-day exposures, EPA advises that levels in drinking water be below 1 mg/L (100 ppb). Infants and children less than 3 years of age should consume drinking water with manganese levels below 0.3 mg/L (300 ppb), or preferably as low as possible. This recommendation is based on concerns about effects to the nervous system that are more likely to occur in younger children, and because formula-fed infants/children already receive adequate manganese as an added essential nutrient in their formula. Formula fed infants or children may consume more manganese than the rest of the family if the manganese fortified formula is prepared with water that also contains manganese. In addition, young children appear to absorb more but excrete less manganese than older children. See:

[http://www.epa.gov/safewater/ccl/pdfs/reg\\_determine1/support\\_cc1\\_magnese\\_dwreport.pdf](http://www.epa.gov/safewater/ccl/pdfs/reg_determine1/support_cc1_magnese_dwreport.pdf).