Water Conservation Tips

Here's how you can do your part to conserve water at home:

- Fix Leaking faucets, pipes, toilets, etc.
- Install water-saving devices.
- Wash only full loads of laundry
- Don't use the toilet for trash disposal.
- Take shorter showers. Do not let the water run while shaving, washing, or brushing teeth.
- Run the dishwasher only when full
- Water the lawn as little as possible.
- Choose plants that don't need much water,
- Obey water bans or regulations.

Town of Maynard
Department of Public Works
Water Department
195 Main Street
Town Building
Maynard, MA 01754

Maynard
2015 H2O Facts

Total Water Pumped
314 Million Gallons
(as pumped through
the water treatment facilities)

Average Day Usage:
0.86 Million Gallons

Any Questions?

Want to know more about the Maynard water supply system or interested in participating in the decision-making process? Please call Aaron Miklosko, Operations Manager at the Maynard Department of Public Works, at 978-897-1317 with any questions, comments, or concerns. Our offices are located at 195 Main Street.

Further Information

- MassDEP: www.mass.gov/dep
- MA Drinking Water Education Partnership: www.madwep.org
- American Water Works Association www.awwa.org
- US Environmental Protection Agency www.epa.gov/safewater

Town of Maynard, Massachusetts

Water Quality Report 2015

The Quality of Your Drinking Water

The Maynard Water Department is committed to providing our customers with safe and pure drinking water. The Maynard water system is a registered public water supply (PWSID#2174000) with the Massachusetts Department of Environmental Protection (MassDEP). To ensure that we continue to deliver this quality product, the Water Division continues to make investments in water quality monitoring, water source protection, water mains, and the water treatment plants. We are pleased to report the results of our 2015 water testing to inform you about your drinking water. We will be mailing you a report each year with information about annual water quality.

Maynard's Water System

Maynard's drinking water comes from seven groundwater sources. Wells #1-4 are constructed in sand and gravel deposits that overlie bedrock. These wells are 40-70 feet deep and are located in the southern half of Maynard. The remaining three wells, #5 -7, are approximately 400 feet deep into bedrock and are located in the northern half of Maynard. White Pond, a surface water supply located in Hudson and Stow, is no longer in service; however it remains available as a future source if treatment is implemented. The Town has the infrastructure to supply 2.75 million gallons per day (MGD) of high quality treated drinking water from the following facilities:

- **Old Marlboro Road Treatment Facility: Wells # 1-3: 1.0 MGD**
- **Green Meadow Treatment Facility: Well #4: 0.65 MGD, expandable to 1 MGD**
- **Rockland Avenue Treatment Facility: Wells #5-7: 1.1 MGD**

Maynard's Water Treatment

All three water treatment facilities disinfect water and have greensand filters to remove iron and manganese. In addition, the Old Marlboro Road and Green Meadow facilities add potassium hydroxide to control corrosion from household plumbing, and The Rockland Avenue facility is equipped with an air stripper to remove radon, a naturally occurring contaminant in bedrock wells.

Help Protect Our Drinking Water Supply

MassDEP has completed a Source Water Assessment and Protection (SWAP) Report for our system. The SWAP report assesses the susceptibility of public water supplies to potential contamination by microbiological pathogens and chemicals. A susceptibility ranking of high was assigned to our system using information collected during the assessment by MassDEP. A source's susceptibility to contamination does not imply poor water quality. The report states the high vulnerability to contamination is due to the absence of hydrogeological barriers (i.e. clay) that can prevent contamination migration. The complete SWAP Report is available online at the following website: **http://www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2174000.pdf**

Protecting our water sources is just as important as conserving drinking water. You play an important role in protecting your water resources. To help us protect your water sources:

- Use fertilizers, insecticides, and herbicides sparingly and follow the manufacturers' instructions.
- Never pour harsh chemicals, oils or cleaners down your toilet, sink or storm drains. Instead, dispose of them and other materials, such as paints and thinners, during household hazardous waste collections programs.
- If you have a septic system, have it pumped out every two years and do not use septic system cleaners.
- Immediately notify the DPW if you notice anyone trespassing or riding motorized vehicles near the wells, trespassing near or vandalizing any water supply facilities.

Any water supply topics and concerns can be addressed in public at the Board of Selectmen's meetings held on the 1st and 3rd Tuesday of each month at 7:00 p.m. at Town Hall in the Michael J. Gianotis Room.

Water Quality Summary

Listed below are contaminants detected in Maynard's drinking water in 2015. The complete list of contaminants that we test for is available at the Department of Public Works office. Also below is a list of important definitions and units of measurement.

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.

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

UCMR3 - Unregulated Contaminant Monitoring Rule 3

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.

Units of Measurement

ppm	= parts per million, or milligrams per liter (mg/l)	ppb	= parts per billion, or micrograms per liter (ug/l)
ppt	= parts per trillion, or nanograms per liter	pCi/l	= picocuries per liter (a measure of radioactivity)
ND	= Not Detected	N/A	= Not Applicable

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, brooks, 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 contaminants 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 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 storm water runoff, industrial or domestic wastewater discharges, oil or gas production, mining, or farming.
- Pesticides & 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 can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants - which can be naturally occurring or be the result of oil and gas production and mining activities.

Samples Collected from Your Faucets

The water quality information presented in the following table(s) 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(s). 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 Safe Drinking Water Hotline (800-426-4791) or your local water supplier.

	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)	September 2015	8.4	15	0	19	1	N	Corrosion of household plumbing systems
Copper (ppb)	September 2015	0.43	1.3	1.3	19	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. The Maynard Water Department 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 two 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 800-426-4791 or at http://water.epa.gov/drink/info/lead/index.cfm.

Samples Collected from Our Water Supply

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MCLG	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants							
Barium (ppm)	6/23/2015	0.056	ND-0.056	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (total) (ppb)	7/23/2015	0.4	0.22-0.9	100	100	N	Discharge from pulp mills; erosion of natural deposits
Nitrate (ppm)	6/16/2015	0.33	ND-0.33	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	June/July 2015	8.3	0.8-21	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	June/July 2015	0.34	ND-0.99	5	0	N	Erosion of natural deposits
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs) (ppb)	Quarterly in (2015)	88	29-160	80	-----	**Y**	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	Quarterly in (2015)	44	9.5-81.0	60	-----	N	Byproduct of drinking water disinfection
Chlorine (ppm) (free, total or combined)	Monthly in (2015)	0.43	0.17-0.63	4	4	N	Water additive used to control microbes

Health Effects: TTHM-Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as people with cancer undergoing chemotherapy, those 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. More information about contaminants and potential health effects along with the EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

Notice of Noncompliance

The Maynard Water Department received a Notice of Noncompliance for failure to test and report the minimum number of lead and copper samples in the required time period. Specifically, during the months of June through September of 2015 we had only collected 19 out of 30 required samples. We are using this report as a means of public notification of the noncompliance. Sampling requirements and frequency for lead and copper testing has been increased to 60 samples collected semi-annually.

The Maynard Water Department received a Notice of Noncompliance for exceedance of the maximum contaminant level (MCL) for Total Trihalomethanes (TTHMs) during the months of October through December of 2015 and failed to conduct the proper level of public notice in the given time after reporting the test results. Our system also notified customers through mailings and website publications of a TTHM MCL exceedance during the first quarter of 2016. We are currently still exceeding the MCL but working with MassDEP and water treatment consultants to make modifications to ensure that the exceedance will not occur again. Please refer to our website for current information regarding these events. http://www.townofmaynard-ma.gov/

Unregulated Contaminants

Unregulated contaminants are those for which there are 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

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Unregulated Inorganic Contaminants						
Sodium (ppm)*	6/16/2015	23-35	30	----	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
Other Organic Contaminants - When detected at treatment plant as VOC residuals, not TTHM compliance						
Bromodichloromethane (ppb)	9/16/2015	3.8-20	6.4	---	---	By-product of drinking water chlorination
Chloroform (ppb)	7/24/2015	0.22-0.9	0.4	---	---	By-product of drinking water chlorination
Dibromodichloromethane (ppb)	9/16/2015	3.0-5.3	4.0	---	---	By-product of drinking water chlorination
Unregulated Secondary Contaminants						
Manganese** (ppb)	Quarterly in (2015)	ND-7.1	1.5	50	300	Erosion of natural deposits

*About Sodium: Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure.

**Manganese is a naturally occurring mineral found in rocks, soil and groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 ug/L. In addition, EPA and MassDEP have also established public health advisory levels. Drinking water may naturally have manganese and, when concentrations are greater than 50 µg/L, the water may be discolored and taste bad. Over a lifetime, EPA recommends that people drink water with manganese levels less than 300 µg/L and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 ug/L, primarily due to concerns about possible neurological effects. Children up to 1 year of age should not be given water with manganese concentrations over 300 ug/L, nor should formula for infants be made with that water for longer than 10 days.

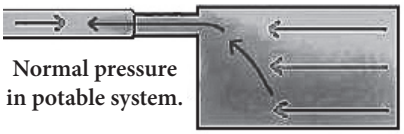
In accordance with provisions in the Safe Drinking Water Act (SDWA), public water suppliers are required to monitor for up to 30 unregulated contaminants on a five-year cycle. Unregulated contaminants are those that don't yet have a drinking water standard set by the United States Environmental Protection Agency (EPA). The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. For more information please see www.epa.gov/sites/production/files/2015-10/documents/ucmr3_factsheet_general.pdf.

UCMR3 Results Unregulated Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	ORSG or UCMR3 Health Benchmark	Possible Source
Chlorate (ppb)	7/23/2015	506-1010	747	210	By-product of drinking water chlorination
Chloromethane (ppb)	7/23/2015	ND-0.42	0.26	2.69 to 269	Discharge of industrial use
Molybdenum (ppb)	7/25/2015	ND-1.4	0.45	40	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium (ppb)	7/23/2015	74.3-326	213	1500	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Chromium-6	7/23/15	ND-0.06	0.018	--	

Cross-Connection Contamination

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage). Community water supplies are continually jeopardized by cross- connection unless appropriate valves, known as backflow prevention devices, are installed and maintained. For more information, visit the Web site of the American Backflow Prevention Association (www.abpa.org) for a discussion on current issues.

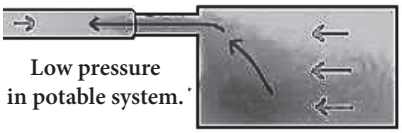
Back Pressure:



Normal pressure in potable system.

High pressure non-potable system.

Back Siphonage:



Low pressure in potable system.

Normal pressure non-potable system.

What you can do to help prevent a cross-connection?

Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you, as a drinking water user, can take to prevent such hazards:

- Never submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- Never attached a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bib vacuum breaker on every threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.