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TOWN OF LENOX

DEPARTMENT OF PUBLIC WORKS

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2016 DRINKING WATER QUALITY REPORT

The Town of Lenox DPW is proud to issue our annual Drinking Water Quality Report. Each year over 1,000 tests are conducted to ensure safe, high quality water for the residents of Lenox. For any questions regarding this report please contact the Town of Lenox Water Superintendent, Robert Horn, at (413) 637-5525, bhorn@townoflenox.com

SOURCES

The sources for the Lenox Water system are the Upper Root and Lower Root Reservoirs located on Reservoir Road. These surface water reservoirs are surrounded by town owned land with restricted use which protects these sources from contaminants. Water enters our Root Water Treatment Plant for filtering and chlorine is added for disinfection. In 2016 Lenox produced 187,095,200 gallons of water. During the slight drought conditions this summer/fall the Town of Lenox pumped 18,781,400 gallons of water from the City of Pittsfield.

MEETINGS

To discuss water quality issues please contact the Lenox DPW at (413) 637-5525.

SUBSTANCES FOUND IN 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 - viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and

wildlife.

Inorganic contaminants - salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides - may come from a variety of sources such as agricultural, 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 - 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, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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. **Information about Lenox water is in the attached table. For more information about contaminants and potential health effects call the EPA 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 those 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 from their health care providers about drinking water. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

“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 Town of Lenox DPW 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>.”

CROSS CONNECTION INFO



A cross connection occurs whenever a drinking water line is linked to non-potable (not safe to drink) water. A garden hose connected to a weed killer spray bottle is an example of a cross connection. Faucets feeding hoses must have vacuum breakers to prevent back

siphoning. Vacuum breakers are available at hardware stores. Surveys are done at commercial properties to assess needs for other types of backflow devices.

WATERSHED PROTECTION

Watershed protection is in everyone's interest. A safe water supply depends on thoughtful use of the land. Public access is prohibited within 400' of the reservoirs and feeder brooks. Motorized vehicles are prohibited from the watershed. Be aware of your impact and protect your water. Please contact the Lenox Water Dept. at (413)637-5525 if you witness any suspicious activity.

Important Definitions:

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

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): 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 (ex. chlorine, chloramines, chlorine dioxide).

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known expected risk to health. The MRDLG does not reflect the benefits of the use of disinfectants to control microbial contaminants.

MG/L -Milligrams per Liter, same as PPM

ND -Not Detected

NTU -Nephelometric Turbidity Units

pCi/L -Picocuries per liter (a measure of radioactivity)

PPM -Parts Per Million, same as MG/L
PPB -Parts Per Billion

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

Perchlorate was not detected in samples taken in 2011.

SYSTEM INFO:

Hardness of water: 4.4 grains per gallon. New rates effective **May 1, 2016:** Water \$7.44 per 1000 gallons, Sewer \$11.50 per 1000 gallons. In 2002 a Source Water Assessment and Protection (**SWAP**) Report was completed by the Massachusetts Department of Environmental Protection for the Lenox reservoirs. The reservoirs were ranked moderate for susceptibility of contamination. The complete **SWAP** report is available at <http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1152000.pdf>. For more info, please call Robert Horn at (413)637-5525.

Conservation

Water consumption in Lenox will continue to increase as the town grows. Lenox needs to keep planning for additional sources of water. One source that Lenox has relied on for many years is the City of Pittsfield. Through an interconnection with the Pittsfield system Lenox can currently take a daily average of 82,000 gpd and a peak of 430,000 gpd. That amount is about 35% of daily consumption in high use periods of the year. Lenox only uses Pittsfield water when demand exceeds our treatment plant's peak flow capacity of 1.1 million gallons per day or when we need to conserve our own supply in the Lenox reservoirs, which was the case this summer/fall. Another important part of providing an adequate supply of water is conservation and the protection of our existing sources. Water is a limited resource and conservation needs to be a part of any municipalities' planning. Everyone needs to be aware of their water consumption and take steps to minimize it. Make sure

your home or business is leak-free. Check your water meter when you are certain that no water is being used. If the meter reading changes, you have a leak. Repair dripping faucets. One drip per second wastes 2,700 gallons of water per year. Take shorter showers. Operate dishwashers and clothes washers only when they are fully loaded or set the water level for the size of the load. Stay alert to possible uncontrolled refilling of toilet tanks caused by defective valves. Driveways and sidewalks should be cleaned by sweeping not washing. Consider using a commercial car wash that recycles water. If you wash your own car, park on the grass and use a hose with an automatic shut-off nozzle. Never pour water down the drain when there is another use for it. Use it to water your indoor plants or garden. Every little bit helps.

Please contact the Lenox Water Department at (413)637-5525 if you notice melted snow, unusual wet spots in your yard, or noise on your water line when no water is being used. These may be signs of underground leakage that the Water Department will be happy to check on.

Lenox Water Fact:

Tap water continues to be a great value compared to bottled water. In 2016, one thousand gallons of tap water cost \$7.44 while one thousand gallons of bottled water bought at a store costs as much as \$1,000.

SPECIAL LEAD TESTING:

During the summer of 2016 the Town of Lenox Water Department conducted special testing for lead. All drinking water fountains and sinks used for drinking water in Town of Lenox buildings were tested. These buildings included:

- Morris Elementary School
- Lenox Memorial HS/MS
- Lenox Children Center
- Montessori School
- Lenox Community Center
- Town Hall
- Town Library
- Town Fire Houses
- Town Police Station
- Town DPW Garage/Office

All these locations, with the exception of the Morris School, showed lead levels below the action level. Levels over the action level at the Morris School were isolated to a specific area, and have been remedied. Questions call (413)637-5525.

TOWN OF LENOX

WATER QUALITY TESTING RESULTS – REGULATED CONTAMINANTS							
Contaminant	90 th Percentile	# of Sites Exceeding	# of Sites Sampled	Action Level	MCLG	Violation	Comment
Lead (PPB)	1.9	0	20	15	0	No	Source: Corrosion of plumbing systems; Last test 2014 (2017 testing scheduled)
Copper (PPM)	0.074	0	20	1.3	1.3	No	Source: Corrosion of plumbing systems; Last test 2014 (2017 testing scheduled)
Contaminant	Highest Detect Value	Range Detected	Average Detect	MCL or MRDL	MCLG or MRDLG	Violation	Comment
Chlorine (PPM)	2.13	0.22 – 2.13	0.67	4	4	No	Source: Added for disinfection at treatment plant
Nitrate (PPM)	ND	ND	ND	10	10	No	Source: Soil Runoff Last Test September 2016
Haloacetic Acids (PPB)	13.0	13.0 – 13.0	13.0	60		No	Source: Byproduct of drinking water chlorination. Last test September 2016
Trihalomethanes (PPB)	38	38.0 – 38.0	38.0	80		No	Source: Byproduct of drinking water chlorination. Last test September 2016
Turbidity (NTU)	0.16	0.05 – 0.16	0.08	TT (1.00)	N/A (0.10)	No	Source: Soil runoff. Turbidity is a measure of the cloudiness of water. It is a good indicator of the effectiveness of our filtration system. Lowest monthly percentage of samples less than 1.00 ntu was 100% (all months met limits)
Toluene (PPM)	ND	ND	ND	1	1	No	Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories. Last test Oct 2014
Xylene (PPM)	ND	ND	ND	10	10	No	Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories; discharge from chemical factories. Last test Oct 2014
Contaminant	Highest # Positive in a month	MCL	MCLG	VIOLATION		Source	HEALTH EFFECTS
Total Coliform Bacteria	0	1	0	No		Naturally present in environment	Coliform are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present.
Secondary Contaminants	Highest Detect Value	Range Detected	Average Detect	MCL or MRDL	MCLG or MRDLG	Violation	Comment
Iron (PPM)	ND	ND	ND	0.3	0.3	No	Source: Used in drinking water pipes. Last test October 2016
Manganese (PPM)	ND	ND	ND	0.05	0.05	No	Source: Found naturally in the air, soil, and water. Last test October 2016
Unregulated Contaminants							Comment
Sodium (PPM)	2.7	2.7	2.7	None	None	No	Naturally occurring, also road deicing Last test September 2016
Radionuclides							
Contaminant	Detect Value	Std. Dev. (+/-)	MCL	MCLG		Violation	Comment
Gross Alpha (pCi/L)	1.10	+/- 1.34	15	none		No	Source: Occur naturally and in man-made nuclear materials. Last test August 2015
Radium-226 (pCi/L)	0.635	+/- 0.431		none		No	Source: Occur naturally and in man-made nuclear materials. Last test August 2015
Radium-228	0.0950	+/- 0.308		none		No	Source: Occur naturally and in man-made nuclear materials. Last test August 2015
Combined Radium	0.73	----	5	none		No	Source: Occur naturally and in man-made nuclear materials. Last test August 2015

DRINKING WATER VIOLATIONS

We violated a drinking water standard in November 2016. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During November 2016, we did not test for Total Organic Carbon (TOC) of our Raw Water Source and therefore cannot be sure of the quality of your drinking water in our raw water source during that time.

We were contacted by the laboratory of a problem with our initial sample taken on November 29, 2016. Due to taking the sample late in November we were not able to resample until December. Thus we violated the requirement to sample/test in November 2016. Moving forward we plan to sample much earlier in the month, so if we do need to resample we have ample time remaining to do so.