2019 Annual Drinking Water Quality Report

For

Leicester Water Supply District

Leicester, Massachusetts

MASSDEP PWSID # 2151000

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.

I. PUBLIC WATER SYSTEM INFORMATION

Address: P.O. Box 86, 124 Pine Street, Leicester, MA 01524

Contact Person: Joseph H. Wood, Superintendent

Telephone #: (508) 892-8484 Fax #: (508) 892-1812

Internet Address: http://www.lwsd.net/

Water System Improvements

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system 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, your water system is operated by Massachusetts licensed operators who oversee the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system:

We made further improvements to monitoring & controlling the addition of chlorine to the distribution system at the Paxton Booster Station located at the water tanks and at the Rawson Water Treatment Plant. The District continues to add a 2% solution of Sodium Hypochlorite to the head end of the 12" DIP Loop Line to obtain 4-log disinfection of the water delivered from the Paxton Well Field. The District also continues to add 2% sodium hypochlorite at the Rawson Water Plant. The water system SCADA system varies the amount of sodium hypochlorite injected at each location in accordance with system flows. This allows for consistent finished water quality for the District customers. Other projects completed in 2019 included replacement of all water gate boxes on Rt. 9. Upgrades to the Hyland Booster Pumps including replacement of Variable Frequency Drives and valves. Well #5 maintenance including pulling the well pipe/pump and hydrofracking the Well.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend the following meetings or educational events: Regular Commissioner's Meetings are held the third Thursday of each month at 4:15 P.M. at the District offices on 124 Pine Street. Our annual meeting is held the last Tuesday of May each year. However, this year the Annual Meeting was held on June 4, 2019.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Your water is provided by the following sources as listed below:

The Leicester Water Supply District is a Municipal Water System that provides water to approximately 3,300 residents in the central area of Leicester. The water we distribute is groundwater that is pumped from bedrock aquifer's. The sources are located in two areas; a well field in the Town of Paxton (Source Id # 01G, 02G, 03G,04G, and 07G) and two wells in Leicester, the Whittemore Street well (05G) and the Rawson Street well(06G). The Whittemore Street well is currently off line until treatment for arsenic and uranium can be provided. The District's system has two - 600,000 gallon water tanks located just north of the Leicester High School at the intersection of RT 56 and Hyland Avenue. The tanks provide storage for fire flows and deliver water to your homes, service area businesses and all parts of the distribution system.

Source Name	MassDEP Source ID#	Source Type	Location of Source

01G	2151000-01G	Groundwater	Paxton well field
02G	2151000-02G	Groundwater	Paxton well field
03G	2151000-03G	Groundwater	Paxton well field
04G	2151000-04G	Groundwater	Paxton well field
05G	2151000-05G	Groundwater	Whittemore Street
06G	2151000-06G	Groundwater	Rawson Street
07G	2151000-07G	Groundwater	Paxton well field

Is My Water Treated?
The District makes every effort to provide you with safe potable drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- *We add a solution of sodium hypochlorite, a disinfectant, to protect you against microbial contaminants.*
- *We chemically treat the water to reduce the concentration of lead and copper.*
- *We chemically treat the water to reduce levels of iron and manganese.*
- *We filter the water to remove uranium and other naturally occurring radionuclides.(Wells 02G, 03G + 06G)*
- *We filter the water to remove arsenic. (Wells 02G, 03G + 06G)*
- *We aerate the water to reduce radon concentrations.(Well #06G)*

The water quality of our system is constantly monitored by our operators and MassDEP to determine the effectiveness of existing water treatment systems and to determine if any additional treatment is required.

Prior water quality test results show that the water needs to be treated to continue to meet these goals. To improve the quality of the water, our engineers are working on a design of treatment facilities to remove arsenic and uranium in Well #05G (Whittemore Street Well). The facility would also have the ability to treat Paxton well water. We anticipate that this treatment will be on-line and operational by January 1, 2023.

How Are These Sources Protected?
MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies to contamination.

What is My System's Ranking?
A susceptibility ranking of Moderate was assigned to this system using the information collected during the assessment by MassDEP.

Where Can I See The SWAP Report?

The complete SWAP report is available at *our office located at 124 Pine Street, Leicester, MA during regular business hours* and online at *http://www.mass.gov/dep/water/drinking/sourcewa.htm#reports* . For more information, call Joseph H. Wood - Superintendent at (508) 892-8484.

What Can Be Done To Improve Protection?
Residents can help protect sources by:

- Practicing good septic system maintenance.
- Supporting water supply protection initiatives at the next town and/or annual District meeting.
- Taking hazardous household chemicals to hazardous materials collection days.
- Contacting the District or Board of Health to volunteer for monitoring or education outreach to schools.
- Limiting pesticide and fertilizer use, etc.

3. 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:

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 stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides -which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems.

Radioactive contaminants -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, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in 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 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 (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 (800-426-4791).

4. 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.

Maximum Residual Disinfectant Level Goal (MRDLG) -- The level of a drinking water disinfectant (chlorine, chloramines, 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.

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

Variances and Exemptions – State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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)
NTU = Nephelometric Turbidity Units
ND = Not Detected
N/A = Not Applicable
mrem/year = millimrems per year (a measure of radiation absorbed by the body)

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

Massachusetts Office of Research and Standards Guideline (ORSG) – 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.

5. WATER QUALITY TESTING RESULTS

What Does This Data Represent?
The water quality information presented in the 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).

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	9/12/2018	.0015	15	0	**12**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	9/12/2018	0.212	1.3	1.3	**12**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

"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. Leicester Water Supply District 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."

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	1	1	0	N	Naturally present in the environment
Fecal Coliform or *E.coli*	0	*	0	N	Human and animal fecal waste

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants							
Antimony (ppb)	5/28/2019	ND		6	6		Discharge from fire retardants; ceramics; electronics; solder
Rock Well #2 (02G)							
Arsenic (ppb)	02/28/2019 05/28/2019 09/05/2019 12/12/2019	ND		10	-----		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Rock Well #3 (03G)							
Arsenic (ppb)	02/28/2019 05/28/2019 09/05/2019 12/12/2019	ND		10	-----		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Rock Well #5 (06G)							
Arsenic (ppb)	02/28/2019 05/28/2019 09/05/2019 12/12/2019	ND		10	-----		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	05/28/2019	0.0472	0.0472	2	2		Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	05/28/2019	ND		4	4		Discharge from electrical, aerospace, and defense industries; erosion of natural deposits
Cadmium (ppb)	05/28/2019	ND		5	5		Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (ppb)	05/28/2019	ND		100	100		Discharge from pulp mills; erosion of natural deposits
Cyanide (ppb)	05/28/2019	ND		200	200		Discharge from metal factories; discharge from plastic and fertilizer factories
Mercury (ppb)	05/28/2019	ND		2	2		Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Nitrate (ppm)	05/28/2019	2.17	ND – 2.17	10	10		Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm)	6/13/2018	ND		1	1		Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate	09/05/2019	ND		2	N/A		Rocket propellants, fireworks, munitions, flares, blasting agents
Fluoride (ppm)	05/28/2019	ND		4	4		Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Volatile Organic Contaminants							
Benzene (ppb)	05/28/2019	ND		5	0		Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	05/28/2019	ND		5	0		Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	4/28/2015	ND		100	100		Discharge from and agricultural chemical factories
o-Dichlorobenzene (ppb)	05/28/2019	ND		600	600		Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	05/28/2019	ND		5	5		Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	05/28/2019	ND		5	0		Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	05/28/2019	ND		7	7		Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	05/28/2019	ND		70	70		Breakdown product of trichloroethylene and tetrachloroethylene
trans-1,2-Dichloroethylene (ppb)	05/28/2019	ND		100	100		Discharge from industrial chemical factories
Dichloromethane (ppb)	05/28/2019	ND		5	0		Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	05/28/2019	ND		5	0		Discharge from industrial chemical factories
Ethylbenzene (ppb)	05/28/2019	ND		700	700		Leaks and spills from gasoline and petroleum storage tanks
MTBE - Methyl Tertiary Butyl Ether (ppb)	05/28/2019	ND		ORSGL 70	-		Fuel additive; leaks and spills from gasoline storage tanks
Styrene (ppb)	05/28/2019	ND		100	100		Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (PCE) (ppb)	05/28/2019	ND		5	0		Discharge from factories and dry cleaners; residual of vinyl-lined water mains

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
1,2,4-Triclorobenzene (ppb)	05/28/2019	ND		70	70		Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	05/28/2019	ND		200	200		Discharge from use in septic system cleaners
1,1,2-Trichloroethane (ppb)	05/28/2019	ND		5	3		Discharge from industrial chemical factories
Trichloroethylene (TCE) (ppb)	05/28/2019	ND		5	0		Discharge from metal degreasing sites and other factories
Toluene (ppm)	05/28/2019	ND		1	1		Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories
Vinyl Chloride (ppb)	05/28/2019	ND		2	0		Leaching from PVC piping; discharge from plastics factories
Xylenes (ppm)	05/28/2019	ND		10	10		Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories; discharge from chemical factories
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	4/28/2015	3.67		15	0		Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	6/22/2017	1.141		5	0		Erosion of natural deposits
Uranium (ppb)	05/28/2019 12/12/2019	ND ND		30	0		Erosion of natural deposits
Synthetic Organic Contaminants							
2,4-D (ppb)	6/13/2018	ND		70	70		Runoff from herbicide used on row crops
Acrylamide	5/3/2012	ND		TT= 5%	0		Added to water during sewage/wastewater treatment
Alachlor (ppb)	6/13/2018	ND		2	0		Runoff from herbicide used on row crops
Atrazine (ppb)	6/13/2018	ND		3	3		Runoff from herbicide used on row crops
Benzo(a)pyrene (ppt)	6/13/2018	ND		200	0		Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	6/13/2018	ND		40	40		Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	6/13/2018	ND		2	0		Residue of banned termiticide
Dalapon (ppb)	6/13/2018	ND		200	200		Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	6/13/2018	ND		400	400		Discharge from chemical factories

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Di (2-ethylhexyl) phthalate (ppb)	6/13/2018	ND		6	0		Discharge from rubber and chemical factories
Dibromochloropropane (DBCP) (ppt)	6/13/2018	ND		200	0		Runoff/leaching from soil fumigant used on soybeans, cotton, and orchards
Dinoseb (ppb)	6/13/2018	ND		7	7		Runoff from herbicide used on soybeans and vegetables
Endrin (ppb)	6/13/2018	ND		2	2		Residue of banned insecticide
Epichlorohydrin	5/3/2012	ND		TT= 1%	0		Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (EDB) (ppt)	6/13/2018	ND		20	0		Residue of leaded gasoline or runoff from soil fumigant used on tobacco or strawberries
Heptachlor (ppt)	6/13/2018	ND		400	0		Residue of banned pesticide
Heptachlor epoxide (ppt)	6/13/2018	ND		200	0		Breakdown of heptachlor
Hexachlorobenzene (ppb)	6/13/2018	ND		1	0		Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	6/13/2018	ND		50	50		Discharge from chemical factories
Lindane (ppt)	6/13/2018	ND		200	200		Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	6/13/2018	ND		40	40		Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl (Vydate) (ppb)	6/13/2018	ND		200	200		Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Polychlorinated biphenyls (PCBs) (ppt)	6/13/2018	ND		500	0		Runoff from landfills; discharge of waste chemicals; residue of banned use in electrical transformers
Pentachlorophenol (ppb)	6/13/2018	ND		1	0		Discharge from wood preserving factories
Picloram (ppb)	6/13/2018	ND		500	500		Herbicide runoff
Simazine (ppb)	6/13/2018	ND		4	4		Herbicide runoff
Toxaphene (ppb)	6/13/2018	ND		3	0		Runoff/leaching from insecticide used on cotton and cattle
Disinfectants and Disinfection By-Products							
Total Trihalomethanes (TTHMs) (ppb)	2/12/2019 5/14/2019 8/13/2019 11/12/2019	14.4	6.5 – 14.4	80	-----		Byproduct of drinking water chlorination

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Haloacetic Acids (HAA5) (ppb)	2/12/2019 5/14/2019 8/13/2019 11/12/2019	1.2	.520 - 1.2	60	-----		Byproduct of drinking water disinfection
Chlorine (ppm) (free, total or combined)	Monthly	.73	.48 - .73	4	4		Water additive used to control microbes

■ Fluoride also has a secondary contaminant level (SMCL) of 2 ppm.
▲The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

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
Inorganic Contaminants						
Sulfate (ppm)	1/7/2013	22-27		250	----	Natural sources
Organic Contaminants						
MTBE - Methyl Tertiary Butyl Ether (ppb)	05/28/2019	ND		20-40	70	Fuel additive; leaks and spills from gasoline storage tanks
Other Organic Contaminants - When detected at treatment plant as VOC residuals, not TTHM compliance						
Bromodichloromethane (ppb)	05/28/2019	ND- 2.28	0.815	---	---	By-product of drinking water chlorination
Bromoform (ppb)	05/28/2019	ND-0.68	0.325	---	---	By-product of drinking water chlorination
Chloroform (ppb)	05/28/2019	3.24	0.963	---	---	By-product of drinking water chlorination
Secondary Contaminants						
Iron (ppb)	02/28/2019 05/28/2019 09/05/2019 12/19/2019	ND		300	**---**	Naturally occurring, corrosion of cast iron pipes
Manganese (ppb)	02/28/2019 05/28/2019 09/05/2019 12/19/2019	ND-0.0893	0.0170	50*	**---**	Erosion of natural deposits
Aluminum (ppb)	12/19/2017	ND		200	**---**	Byproduct of treatment process
Chloride (ppm)	12/19/2017	57.6-132	85.7	250	**---**	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Color (C.U.)	12/19/2017	0		15	---	Naturally occurring organic material
Copper (ppm)	12/19/2017	ND-.0014	.0008	1	---	Naturally occurring organic material
Odor (T.O.N.)	12/19/2017	0-1	.67	3 TON	---	Erosion of natural deposits; Leaching from wood preservatives0
PH	12/19/2017	7.33-8.08	7.63	6.5-8.5	---	-----
Silver (ppb)	12/19/2017	ND		100	---	Erosion of natural deposits
Total Dissolved Solids (TDS) (ppm)	12/19/2017	189-395	286	500	---	Erosion of natural deposits.
Zinc (ppm)	12/19/2017	.0064-.0232	.0141	5	---	Erosion of natural deposits, leaching from plumbing materials

* The EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

6. COMPLIANCE WITH DRINKING WATER REGS

Does My Drinking Water Meet Current Health Standards?
We are committed to providing you with the best water quality available. We collected all samples during 2017 at the required times and dates as set by MassDEP.

Samples analyzed for Total Trihalomethanes (THM's) and Haloacetic Acids (HAA's) were taken at required dates and times and analyses indicated our water quality was well within required parameters.

Health Effects Statements ……..
Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliform bacteria were detected in a water system sample for the year 2019 in the distribution system at 124 Pine Street (RS 001). Repeat samples along with additional samples above and below the sample site resulted in a zero bacteria presence.

Most well water in Leicester contain atleast trace concentrations of Arsenic. The District treats for removal of arsenic from wells 02G, 03G and 06G. The literature indicates that some people who drink water containing arsenic in excess of the MCL over many years could experience damage to their skin or experience problems with their circulatory system. It is also possible that there would be an increased risk of getting cancer.

Administrative Consent Order – ACOP-CE-16-5D001 ……..
In 2016 the MassDEP determined that Pierce Spring, one of the system's original water supplies, is under the influence of surface water. The USEPA and the State requires that all drinking water that originates from or is influenced by a surface water source be treated. Because of this determination, the MassDEP has issued an Administrative Consent Order with Penalty, ACOP, to formalize correction of this condition. The date of the ACOP is March 25, 2016. Corrections to MassDEP's ACOP deficiencies will take several years to accomplish. For the past two years Leicester Water Supply District, LWSD, has been adding Sodium Hypochlorite (chlorine) to the water from the Paxton wells for disinfection purposes. This includes the small amount of water generated from Pierce Spring. Ultimately LWSD has plans to construct a new water treatment plant at the water towers. The new plant will treat all the water from the Paxton wells. Our schedule for this project calls for it to be completed by 2021.

If any customer should have any questions relative to the Consent Order, please contact the District offices at 508-892-8484 and speak with Superintendent Joseph H. Wood.

Please share this information with all the people who drink the District's water, especially those who may not have received this notice directly (for example, customers who live in apartments, nursing homes, schools, and businesses). This Consumer Confidence Report will be posted in local public places as required by MassDEP regulations.

7. EDUCATIONAL INFORMATON

Do I Need To Be Concerned About Certain Contaminants Detected In My Water?
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. Leicester Water Supply District 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.

8. ADDITIONAL INFORMATION

Preventing backflow of system water is an important part of maintaining a healthy water supply. The Leicester Water Supply District's water distribution system is designed to carry water from the water treatment plant to the consumer. Cross connections, or connections between potable water in the distribution system to any non-potable water, exist. These connections make the water distribution system susceptible to backflow, which is the reversal of water flow from its intended direction. In other words, non-potable water could be introduced into the distribution system.

There are two types of backflow:

- **Backpressure backflow,** which occurs when the pressure outside the water distribution system exceeds the pressure within the system.
- **Backsiphonage,** which occurs when a partial vacuum is created in the system sucking non-potable water back into it.

Three Common Types of Backflow  Prevention Devices for Water Systems

Pressure Vacuum Breaker

Pressure Vacuum Breaker.
This device is approved for irrigation systems. However, the device is rarely used for above ground installations because it is subject to freezing during winter months. This device is also approved for chemical injection systems on sprinklers. Irrigation systems can be turned off with 1 of 2 shut off handles.

Atmospheric Vacuum Breaker

Atmospheric Vacuum Breaker.
This device is commonly found on older sprinkler systems, but is not approved for new installations because it is

non-testable. It must be replaced by a Double Check Valve when upgrading irrigation system. It has no shut off handles to isolate irrigation system.

Double Check Valve

Double Check Valve.
This is the most widely used backflow prevention device on sprinkler systems. It is installed below grade in a standard valve box. Irrigation system can be turned off at 1 of 2 shut off handles.

Simple Steps to Prevent Backflow:

- Guard against cross connections. A garden hose is a direct connection to the drinking water in the home. Don't attach chemical sprayers or leave a garden hose submerged in a swimming pool. (Hose Bibb Vacuum Breakers may also be installed on garden hoses)
- Make sure backflow prevention devices are installed on your home sprinkler system. Common devices are Double Check Valve Assemblies and Pressure Vacuum Breakers.