Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Drinking Water Program

Consumer Confidence Report Template

It is strongly recommended that you consult *Appendix M: Consumer Confidence Reporting Guidelines* which is the official state document for CCR reporting. Also consult *Recommended Tips for Preparing User Friendly Consumer Confidence Reports*. These guides contain attachments on contaminants, certification forms, and other helpful aids. You can find these documents on the MassDEP Web site: http://www.mass.gov/dep/water/drinking/systems.htm#ccr .

MassDEP encourages all public water systems to use the Consumer Confidence Report (CCR) as a tool to educate customers about their efforts to provide safe drinking water.

If you follow the instructions noted in each section of this template, your report will be in full compliance with the current federal and state CCR requirements.

The template is a Microsoft Word document that can be downloaded to your hard drive. Follow the directions throughout the template, and delete the colored text when you insert your system's information. Once data entry is completed, review for accuracy and print.

- Instructional text in ***[red italic brackets]*** concerns **required information**. Delete this text after filling in any required information.
- Instructional text in ***{blue italic brackets}*** concerns **recommended or optional information**. Delete this text after filling in any information.

The basic information that is required for each CCR falls into the following sections within the template. In each of the sections you will find explanations of what you need to report. Much of the related information you need is found in *Appendix M: Consumer Confidence Reporting Guidelines* (the Guide) and attachments, you will find references to these sections for additional information.

Before July 1:

- Distribute the CCR to your customers (by mailing, publishing, posting, and any other required methods).

Submit a copy of the CCR, the CCR certification form, and supporting documentation to MassDEP Boston, your regional office, your local health board, and the MA Department of Public Health. Refer to Appendix M – The Guide, for distribution requirements and addresses.

Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108-4746

Commonwealth of Massachusetts
Deval L. Patrick, Governor
Timothy P Murray, Lt. Governor

Executive Office of Environmental Affairs
Richard K. Sullivan, Secretary

Department of Environmental Protection
Kenneth L. Kimmell, Commissioner

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This information is available in alternate format by calling our Diversity Director at 617-292-5751.

2011 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: ***Roger A. Hammond, Superintendent***

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

Internet Address: 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 a Massachusetts certified operator who oversees the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system: *Created a hydraulic model of the whole system; updated our Geographic Information System (GIS) layers;*

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: Commisioner's meetings are the third Thurday of each month at 10 am in the office of the Leicester Water Supply District, 124 Pine Street, Leicester, MA 01524. Our annual meeting is held on the last Tuesday of April each year.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?
Your water is provided by the following sources listed below:

The Leicester Water Supply district is a Municipla Water System that provides water to about 3,300 residents in the central area of Leicester. The water we distribute is groundwater that is pumped from the aquifer's in the bedrock. The sources include two area; a well field in the Town of Paxton (Source Id # 01G, 02G, 03G, and O4G) and two wells in Leicester, the Whittemore Street well (05G) and the RawsonSstreet well(06G). The Whittemore Street well is currently out of service until treatment for arsenic and uranium can be provided. Two Water tanks (600,000 gallon each), located just north off Route 56 near the Leicester High School and Leicester Primary schools, provide storage and deliver water through our distribution system to your homes and businesses.

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 (Jim Dandy)	2151000-04G	Groundwater	Paxton well field
05G	2151000-05G	Groundwater	Whittemore Street
06G	2151000-06G	Groundwater	Rawson Street

Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- *We add a disinfectant to protect you against microbial contaminants.*
- *We chemically treat the water to reduce lead and copper concentrations.*
- *We aerate the water to reduce radon concentrations.(Well #06G)*
- *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)*

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

Our water system makes every effort to provide you with safe and pure drinking water. The water quality of our system is constantly monitored by us and MassDEP to determine if any treatment may be 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 system is working on the installation of treatment to arsenic and uranium in Well #05G (Whittemore Street). We expect this treatment to be on-line and operational by *April 2014.*

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.

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 *Roger A. Hammond at (508) 892-8484.*

Residents can help protect sources by:

- *Practicing good septic system maintenance*
- *Supporting water supply protection initiatives at the next town meeting*
- *Taking hazardous household chemicals to hazardous materials collection days*
- *Contacting the water department 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).

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. [INSERT THE NAME OF YOUR UTILITY] 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.

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)	2010	2	15	0	**10**	**1**	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2010	0.3	1.3	1.3	**10**	**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. The 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	3	1	0	Y	Naturally present in the environment
Fecal Coliform or *E.coli*	1	*	0	Y	Human and animal fecal waste

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

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.

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. However some contaminants that were tested last year did not meet all applicable health standards regulated by the state and federal government. Due to contaminant violations of E-coli and Total Coliform during the period(s) of June 16, 2011 to June 18, 2011 our system took the following corrective actions.

- We collected additional samples.
- A boil water order was issued
- We announced public notification by newspaper, posting notices etc.
- We disinfected and flushed the distribution system to eliminate coliform bacteria.

Our water system and MassDEP monitor and record the effectiveness of actions taken in response to contaminant violations. The health effect statement for this contaminant is listed below.

Health Effects Statements

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Fecal coliforms and E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely-compromised immune systems.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Drinking Water Violations

- *Monitoring and reporting compliance data*

We failed to complete required sampling in a timely manner, which is a monitoring and reporting violation. Because we did not take the required number of samples, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time. The contaminants for which monitoring was not done are listed in the table below, with the period during which samples should have been taken, the number of samples each contaminant required, the number taken, and when the required sampling was conducted. In addition to sampling for these contaminants, our system announced public notification upon awareness of the violation.

Contaminant	Monitoring Period	Number of Samples Required	Number of Samples Taken	Date Sampling Conducted	Health Effects
Volatile Organic Contaminants	4/2011-6/201	3	3	9/2011	Unknown
Arsenic	4/2011-6/2011	3	3	9/2011	Unknown
Uranium	4/2011-6/2011	2	2	9/2011	Unknown

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

- *Record keeping requirements*

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.

***Arsenic**:* While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral know to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Total Trihalomethanes: Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

Manganese - EPA has established a lifetime health advisory (HA) value of 0.3 ppm for manganese to protect against concerns of potential neurological effects, and a One-day and 10-day HA of 1 ppm for acute exposure.

However, it is advised that for infants younger than 6 months, the lifetime HA of 0.3 ppm be used even for an acute exposure of 10 days.

8. ADDITIONAL INFORMATION

- *A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the town) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow-prevention device can prevent this problem.*

- *The Leicester Water Supply District recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your town! For additional information on cross connections and on the status of your water system's cross connection program, please contact Roger Hammond, Superintendent .*

- *Information on voluntary or mandatory water use restrictions implemented last year or currently in effect.*