



This report was prepared by:
Hillcrest Water District
PO Box 317 / 124 Pine Street
Leicester, MA 01524

Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.



For more information about this report, or for any questions relating to your drinking water, please call Roger A. Hammond, Water Superintendent, at (508) 892-7585.

Community Participation

You are invited to voice your concerns about your drinking water at the monthly Commissioners Meetings. We meet the second Monday of each month at 7:00 p.m. at the office of the Leicester Water Supply District, 124 Pine Street, Leicester, MA. Please call to confirm date and times.

Where Does My Water Come From?

The Hillcrest Water District is a Municipal Water System that provides water to 1200+ residents along Pleasant Street from Hillcrest Road to King Street and includes the areas of Dawn Acres, Mayflower, Crestwood, Cricklewood and Lauralwood. The water we distribute is groundwater, water that is pumped from aquifers in the bedrock. The sources included source ID #01G and #02G, which are located about 200 feet west of the intersection of Pleasant Street and Route 56 in Leicester. The 02G well has been offline since 2004 because of water-level issues. A “standpipe” storage tank is located on Lehigh Road next to the Memorial School and delivers water through our distribution system to your homes and business.

We also purchase water from the Leicester Water Supply District from a connection at Newfield Street during high usage times.

Water Treatment Process

The District constructed a Treatment Plant in September 2008 which removes both Arsenic and Uranium from the drinking water. It consists of two treatment skids, each of which has two pressurized vessels. The vessels contain a specialized resin media that absorbs and removes the arsenic and uranium. Periodically, the vessels are back-washed to the sanitary sewer and the media is regenerated to begin the removal process over again. Chlorine is added before the treatment process to aid in the treatment and to remove the hydrogen sulfides (rotten egg smell) that some residences have problems with. The treated water is then pumped from a clear well in the treatment building to the water tank and distribution system.

The Treatment Plant began operation on April 1, 2009, with no detections of Arsenic or Uranium.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhme) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.



Why do I get this report each year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

Why does my water sometimes look “milky”?

The “milky” look is caused by tiny air bubbles in the water. The water in the pipes coming into your home or business is under pressure, so gasses (the air) are dissolved and trapped in the pressurized water as it flows into your glass. As the air bubbles rise in the glass, they break free at the surface, thus clearing up the water. Although the milky appearance might be disconcerting, the air bubbles won't affect the quality or taste of the water.

How can I keep my pet's water bowl germ free?

Veterinarians generally recommend that water bowls be washed daily with warm, soapy water — normally when you change the water. Scour the corners, nooks, and crannies of the water dish using a small scrub brush. In addition, once a week put water bowls into the dishwasher to sanitize them with hot water. In most situations, disinfectants like bleach are not needed; warm, soapy water is all you need to keep your pet's water clean and safe.

How much water is used during a typical shower?

The Federal Energy Policy Act set a nationwide regulation that limits showerheads to a maximum flow of 2.5 gallons per minute (GPM). Showerheads made before 1980 are rated at 5 GPM. Since the average shower is estimated to last 8.2 minutes, the old showerheads use 41 gallons of water while the newer, low-flow showerheads use only about 21 gallons.

Is it okay to use hot water from the tap for cooking and drinking?

No, ALWAYS use cold water. Hot water is more likely to contain rust, copper, and lead from household plumbing and water heaters. These substances can dissolve into hot water faster than they do into cold water, especially when the faucet has not been used for an extended period of time.

How many contaminants are regulated in drinking water?

The U.S. EPA regulates over 80 contaminants in drinking water. Some states may choose to regulate additional contaminants or to set stricter standards, but all states must have standards at least as stringent as the U.S. EPA's.

Radon Monitoring

Radon samples for Hillcrest well 01G and Leicester Water Supply District's Rawson Street 06G well were taken on 5/21/2009. The results were 1,200 pCi/L, and 8,800 pCi/L, which is less than the MA guideline of 10,000 pCi/L.

Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Radon is released into homes and ground water from soil. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call (800) SOS-RADON.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection (Department) and the U.S. Environmental Protection Agency (U.S. EPA) prescribes regulations limiting 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, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or 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 which may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Violations

NON CE 10 5D013 (Leicester): Issue 2/10 for an arsenic MCL violation in the fourth quarter of 2009. Actions included Tier 2 public notification, certification of Public Notice, and installation of treatment.

NON CE 10 5D078 (Leicester): Issue for violating the arsenic MCL in the first quarter of 2010. Returned to compliance after treatment was activated on well 06G and Public Notice was completed.

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.

NON CE 10 5D119 (Leicester): Total Coliform Rule Monthly MCL, July 2010. Returned to compliance after repeat testing and other actions (chlorination, etc.).

NON 10 5D510 (Hillcrest): M&R Total Coliform. 5 sites required. Returned to compliance after getting approval for 5 sites.

NON 10 5D147 (Hillcrest): Total Coliform Rule Monthly MCL, September 2010. Returned to compliance after repeat sampling and other actions (chlorination, etc.).

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.

Lead and Drinking 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. We are 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 www.epa.gov/safewater/lead.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Source Water Assessment

A Source Water Assessment Plan (SWAP) is available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.

If you would like to review the Source Water Assessment Plans for Hillcrest Water District and Leicester Water Supply District, please feel free to contact our office at 124 Pine Street during regular office hours.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES									
				Hillcrest Water District		Leicester Water Supply District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2009	10	0	NA	NA	13	ND–13	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Combined Radium (pCi/L)	2009	5	0	NA	NA	3.1	1.8–3.1	No	Erosion of natural deposits
Nitrate (ppm)	2009	10	10	NA	NA	2.6	ND–2.6	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Coliform Bacteria (# positive samples)	2010	1 positive monthly sample	0	3	NA	5	NA	Yes	Naturally present in the environment
Uranium (ppb)	2009	30	0	NA	NA	14	5.9–14	No	Erosion of natural deposits
Tap water samples were collected for lead and copper analyses from sample sites throughout the community									
				Hillcrest Water District		Leicester Water Supply District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	1	0/10	0.3	0/10	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2010	15	0	2	3/10	2	1/10	No	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions

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

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

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

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

pCi/L (picocuries per liter): A measure of radioactivity.

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

ppm (parts per million): One part substance per million parts water (or milligrams per liter).