**Potential Contaminants**

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 through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and picks up substances resulting from the presence of animals or from human activity. The following is a list of potential contaminants that may be present in source water:

- **Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, 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** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential sites.
- **Organic chemical contaminants** include synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants** can be naturally occurring or be the result of industrial processes and mining activities.

In order to ensure that tap water is safe to drink, MassDEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Massachusetts Department of Public Health and the Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

**Special Concerns**

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 older children and infants can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/CDC guidelines on appropriate actions to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Act Hotline: 800-426-4791.

* Español—Este informe contiene información importante sobre su agua potable. Si desea una copia en español contacte por favor el número (413) 532-6778 o visite nuestras instalaciones depuradoras en 600 Westfield Road.

* French—Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu’un qui le comprend bien.

If you have any questions about this report or issues concerning water quality, please contact Butch Seidel, Reservoir Division Supervisor at (413) 532-6778. Questions concerning billing or other matters related to HWW, please call the main office at (413) 536-0442.
IMPORTANT INFORMATION ABOUT HOLYOKE WATER WORKS DRINKING WATER

2015 Water Quality Testing Results

The Holyoke Water Works (PWS ID# 1137000) conducts over 6,000 individual tests every year on your drinking water to ensure that it meets all Federal and State standards. The table below shows the water quality monitoring results from January 1, 2015-December 31, 2015. The contaminants listed are the only contaminants that were detected in your drinking water. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contamination. 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 EPA’s Safe Drinking Water Hotline at 1-800-426-4791. Definitions of the terms and abbreviations used in the tables are given below.

MCL: Maximum Contaminant Level—the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLG— the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MCLG: Maximum Contaminant Level Goal—the level of a contaminant allowed in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are not enforceable public health goals.

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 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.

TT: Treatment Technique—a required process intended to reduce the level of a contaminant in drinking water.

AL: Action Level—the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

NTU: neptunium turbidity unit—a measure of water clarity. Turbidity greater than 5 NTU is just noticeable to the average person.

ppm: parts per million—corresponds to one minute in two years or 1 cent in $10,000. 1 ppm = 1 mg/L

ppb: parts per billion—corresponds to one minute in 2,000 years or 1 cent in $10,000,000. 1 ppb = 1 µg/L

SMCL: Secondary Maximum Contaminant Level—standards developed to protect the aesthetic qualities of drinking water; not health based.

OSRG: Office of Research and Standards Guideline—chemical concentration in drinking water, at or below which adverse health effects are unlikely to occur after lifetime exposure. If exceeded, it serves as an indicator of the potential need for further action.

Cross Connection Inspection/Backflow Prevention Program
A cross connection is an actual or potential connection between a drinking water distribution system pipe and any waste pipe, soil pipe, sewer, drain, or other non-potable sources. The purpose of the program is to protect the public water supply from possible contamination by non-potable sources which could backflow into the water system via a cross connection.

In 2015, HWW contracted with Water Safety Services for the testing of approximately 712 cross connection devices. Over 1,161 tests were conducted in accordance with MassDEP regulations. Of the tests conducted, 58 devices failed or were removed after repairs were made to ensure the protection of the public’s water supply. As an adopted policy, HWW continues to provide commercial water users with hose bible backflow preventers as necessary to help ensure the highest protection of Holyoke’s drinking water.

Currently, the HWW is not required to survey residential properties for cross connections, although the potential for cross connections can exist between outside faucets, lawn irrigation systems, swimming pools, and hot tubs. If you have any questions or concerns about the potential for cross connections in your home, please contact John Lachat, Cross Connection Coordinator at (413) 536-3392. For more information regarding cross connections or to obtain a copy of the regulations governing cross connections (310 CMR 22.22), please contact the MassDEP at its Western Regional Office at (413) 784-1100.

Backflow Device Protects Drinking Water Supply

Lead and Copper
Due to continued compliance with the Lead and Copper Rule, HWW was not required to collect lead and copper samples in 2015. The lead and copper results presented below are based on results collected at 30 customer taps in the distribution system in June 2014. The basis for lead and copper compliance is the 90th percentile value, which is the highest level found in 9 out of every 10 homes sampled.

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. Holyoke Water Works 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.

<table>
<thead>
<tr>
<th>Lead and Copper Contaminant (Units)</th>
<th>90th Percentile</th>
<th>Action Level (AL)</th>
<th># Sites Above AL</th>
<th>Possible Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper (ppm)</td>
<td>0.26</td>
<td>1.3</td>
<td>0</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Lead (ppb)</td>
<td>8.1</td>
<td>15</td>
<td>1</td>
<td>Corrosion of household plumbing systems</td>
</tr>
</tbody>
</table>

(1) Fluoride is added to help prevent tooth decay and cavities. In 2015, the Massachusetts Department of Public Health updated their recommendations for optimal water fluoridation from a range of 0.7 to 1.2 ppm to a standard of 0.7 ppm. In July 2015, HWW began targeting a fluoride dose of 0.7 ppm.

(2) HWW is required to measure total trihalomethanes and haloacetic acids at four distribution system sites, and compliance with the MCLs is based on quarterly running annual averages at each of the four sites. The highest quarterly running annual averages for the year are reported here. The range presents the high and low for samples at individual sites over the course of the year.