Water conservation:
DEP guidelines indicate:
• Average consumer uses 70 gallons per capita per day,
• Greenfield, last year, used 47 residential gallons per capita per day. Yay!

Current usage in the home:
1% dishwashing.
16% faucets, 16% leaks and other uses,
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All city/town water is highly tested and monitored, much more than the bottled water industry.

Source: Tata and Howard, 5 Reasons to choose tap over bottled water, 2016

Americans drink water from approx. 35 billion plastic bottles per year!
• Bottled water average cost: $1.22 a gallon
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• Resource waste and pollution: To produce and deliver all of those 35 billion plastic bottles requires: 17 million barrels of crude oil, 36 ounces of water for every 12 ounce bottle and will emit 2.5 million tons of carbon dioxide.
• 35 billion plastic bottles are trash, and environmental pollutants, unless recycled.

To find out how you compare try this calculator: https://home-water-works.org/calculator

Water Quality questions:
Mark Holley, Water Facilities Superintendent
413-772-1539 or markh@greenfield-ma.gov

Leaks, low pressure, meter problems, or billing information:
Department of Public Works
413-772-1528 ext 6100 or 6106

Hazardous Waste Disposal:
413-772-1539, Paul Zilinski or paulz@greenfield-ma.gov

City Council: Meets every 3rd Wednesday of each month, at GCC TV.

How the tank works...
The tank is part of the water system and provides, fire protection capacity, a hydraulic gradient for pressure throughout the system, and provides a buffer for pressure fluctuations making the system stable and reducing the number of main breaks. We saw a lot of main and service breaks while the tank was offline. The water is “pushed” into the tank by the production of water at the facilities. The well field pumps water into the system/mains forcing it into the tank, while water produced by Oak Hill flows through the mains and into the tank by gravity. The water in the tank is overturned every 48 hours (theoretically). During the day the usage in town is more than the facilities are producing so water drains out of the tank through the water mains to all of the users. At night when everyone is sleeping and not using water the facilities are putting out more water than needed so the tank fills back up, ready for the next day!

Greenfield Water Supply
Average daily consumption
1,830,000 gallons

Oak Hill Filter plant falls below the minimum limit of 0.25 mg/L. If the residual is below that limit for more than four hours it is considered a treatment violation. In this case the residual remained below the limit for less than four (4) hours, however it was not reported to Mass DEP within 24 hours. That is considered a reporting violation, and requires us to make a public notification via the Consumer Confidence Report, the town website, and local paper. For questions please contact Mark Holley @ 413-772-1539 or markh@greenfield-ma.gov.

Other town water projects:
Leyden Road The water main replacement project on Leyden Road was completed.

Adams Hill Tank A new pressure reducing valve was installed in the “low pressure” side of the Adams Tank water supply system. Some of you off Bernardston Road may have noticed better pressure or flow!

What’s new...
The rehab of the 1920 water storage tank
Storing zillions of hydrogen and oxygen molecules is no small task for our dedicated team of water specialists. It was ascertained from their frequent rumblings that something was amiss, and they were not pleased with the condition of their present habitat. Enter the water wizards and now it is a palace where all reside in aquadic bliss.

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City/Town Water VS Bottled Water

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by the state Department of the environment. Greenfield’s water system is routinely inspected in your town. For additional information on cross connections, the DPW recommends the installation of backflow prevention devices. 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, contact the DPW at 413-772-1539.

DEFINITIONS:
90th percentile. Out of ten samples, at least nine were below an accepted level.
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are as close to the maximum contaminant level goal (MCLG) as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there are no known or expected health risks to human health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant 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 below which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
ppm: One part per million (this would be one penny in 10,000)
ppb: One part per billion (one penny in $10,000,000)
Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
*Action Level: The concentration of a contaminant that triggers treatment or other requirement that a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk.

DEP inspects our system for its technical, financial and managerial capacity to provide safe drinking water. To ensure that we provide the highest quality of water possible, your water system is operated by highly trained, certified operators.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. When we find coliforms, it indicates the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune 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 infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Help Line (1-800-426-4789).

The Town is mandated by EPA to include the following generic language about the health effects of certain contaminants and drinking water sources:
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 human activity.


SUBSTANCES DETECTED Below are substances that were detected in the Town’s Drinking Water during the years listed next to the parameter. None of these substances were detected above the allowable limit.

<table>
<thead>
<tr>
<th>Substance/year (unit of measure)</th>
<th>Year Sampled</th>
<th>MCL (MRDL)</th>
<th>MCLG (MRDLG)</th>
<th>Amount Detected</th>
<th>Range of Detected Levels</th>
<th>Violation</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate (ppm)</td>
<td>2016</td>
<td>10.0</td>
<td>10.0</td>
<td>0.43</td>
<td>0.095 – 0.43</td>
<td>No</td>
<td>Runoff from fertilizer use; Erosion of natural deposits</td>
</tr>
<tr>
<td>Chloride (ppm)</td>
<td>2016</td>
<td>4.0</td>
<td>4.0</td>
<td>2.14</td>
<td>1.80 – 2.14</td>
<td>No</td>
<td>Water treatment chemical used to control microbes</td>
</tr>
<tr>
<td>Total Trihalomethanes (THMs) (ppb)</td>
<td>2016</td>
<td>80</td>
<td>68</td>
<td>15.2</td>
<td>12.88 – 15.20</td>
<td>No</td>
<td>RA = Running Annual Average Disinfectant by-products</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA) (ppb)</td>
<td>2016</td>
<td>20</td>
<td>N/A</td>
<td>16.8</td>
<td>6.49 – 16.78</td>
<td>No</td>
<td>RA = Running Annual Average Disinfectant by-products</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>2016</td>
<td>20</td>
<td>N/A</td>
<td>4.4</td>
<td>4.4</td>
<td>No</td>
<td>Runoff from storm water</td>
</tr>
<tr>
<td>Manganese (ppm)</td>
<td>2016</td>
<td>0.005mg/L – 0.3 mg/L</td>
<td>N/A</td>
<td>0.3112</td>
<td>ND (0.005mg/L) – ND (0.052)</td>
<td>No</td>
<td>Natural sources</td>
</tr>
<tr>
<td>Iron (ppm)</td>
<td>2016</td>
<td>0.3 mg/L</td>
<td>N/A</td>
<td>0.054</td>
<td>ND (0.001mg/L) – 0.054</td>
<td>No</td>
<td>Natural sources</td>
</tr>
<tr>
<td>Barium (ppm)</td>
<td>2014</td>
<td>2 mg/L</td>
<td>N/A</td>
<td>0.0089</td>
<td>ND</td>
<td>No</td>
<td>Natural sources</td>
</tr>
<tr>
<td>Nickel (ppm)</td>
<td>2014</td>
<td>No current MCL</td>
<td>N/A</td>
<td>0.0019</td>
<td>ND (0.005) – 0.0013</td>
<td>No</td>
<td>Natural sources</td>
</tr>
</tbody>
</table>

Substance (unit of measure) | Year Sampled | Standard | Action Level (AL) | Amount Detected | Range of Detected Levels | Violation | Maximum Contaminant Level Goal (MCLG) | Maximum Residual Disinfectant Level Goal (MRDLG) |
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>2014</td>
<td>15</td>
<td>5</td>
<td>2.8</td>
<td>0.5 – 12.0</td>
<td>No</td>
<td>Household plumbing and service connections</td>
<td>No</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>2013</td>
<td>1.5</td>
<td>1.5</td>
<td>1.00</td>
<td>0.160 – 1.10</td>
<td>No</td>
<td>Household plumbing and service connections</td>
<td>No</td>
</tr>
<tr>
<td>Secondary Substances (unit of measure)</td>
<td>Year Sampled</td>
<td>Standard</td>
<td>Action Level (AL)</td>
<td>Amount Detected</td>
<td>Range of Detected Levels</td>
<td>Violation</td>
<td>Maximum Contaminant Level Goal (MCLG)</td>
<td>Maximum Residual Disinfectant Level Goal (MRDLG)</td>
</tr>
<tr>
<td>Turbidity (NTU)</td>
<td>2016</td>
<td>Test tech = 1</td>
<td>N/A</td>
<td>0.15</td>
<td>ND – 0.3</td>
<td>No</td>
<td>Exceedance</td>
<td>No</td>
</tr>
<tr>
<td>pH (Units)</td>
<td>2015</td>
<td>6.6 – 8.5</td>
<td>N/A</td>
<td>7.2</td>
<td>7.0 – 7.2</td>
<td>No</td>
<td>Naturally occurring</td>
<td>No</td>
</tr>
<tr>
<td>Chloride (ppm)</td>
<td>2015</td>
<td>250</td>
<td>N/A</td>
<td>9.6 – 21</td>
<td>No</td>
<td>Water treatment chemical used to control microbes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sulfate (ppm)</td>
<td>2015</td>
<td>N/A</td>
<td>8</td>
<td>ND – 8</td>
<td>No</td>
<td>Natural sources</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Unregulated Contaminant Monitoring Regulation Stage 3 (UCMR3) Substances (unit of measure) | Year Sampled | Amount Detected | Range |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium - 6 (ppb)</td>
<td>2015</td>
<td>0.11</td>
</tr>
<tr>
<td>Strontium (ppb)</td>
<td>2015</td>
<td>79</td>
</tr>
<tr>
<td>Vanadium (ppb)</td>
<td>2015</td>
<td>0.4</td>
</tr>
<tr>
<td>Chlorite (ppb)</td>
<td>2015</td>
<td>27</td>
</tr>
</tbody>
</table>

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; Radiotoxic 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, EPA prescribes regulations, which 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, which must provide the same protection for public health.

Regarding lead…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 Greenfield 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. If you would like your water tested for lead at no charge please call the DPW at 413-772-1539. Additional information on lead in drinking water testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Help Line at (1-800-426-4789).