To Our Customers

I am pleased to present you with Concord Public Works’ 11th Annual Water Quality Report. For the un-indoctrinated, all water systems are not alike, and this report is designed to inform you of the present “state” of water supply, as it relates directly to Concord’s public water system. While the information enclosed highlights water quality related issues, it is important to note one emerging water policy issue that may significantly change the way water systems are managed within Massachusetts.

After three years of development, the State has finalized its Sustainable Water Management Initiative (SWMI). The initiative was designed to strike a balance between community water supply needs and water resource (stream and river) protection. As one of a select group of water managers whom had the pleasure of participating directly in the development of this policy, I am intimately aware of how the resulting framework has been designed and how it will place unchartered water resource management challenges on communities such as Concord. Once in place, requests for water, by way of new development or a simple expansion of an existing use, will require an “off-set” or reduction of an equivalent use of water elsewhere. If this is not possible, rate payer funds may need to be invested into direct or indirect stream flow mitigation projects.

As the debate surrounding the development of this new policy winds down, and implementation ramps up, you can expect that Concord Public Works will work hard to comply with these regulatory challenges while working even harder to meet the essential needs and interests of our community. Together, I trust we will learn first-hand what this brave new world of water management will entail.

As always, if you have any questions regarding the information enclosed within this report, the policy noted above, or anything else you believe I may be able to assist you with, please feel free to contact me at 978-318-3250. In keeping with the principles of sustainable Concord, I am equally pleased to be able to offer this report in electronic format, with hardcopies available upon request.

Respectfully,

Alan H. Cathcart
Superintendent, Water/Sewer Division, Concord Public Works

2013 HIGHLIGHTS

Nagog Pond Pilot Efforts:
Pilot testing of state of the art filtration technologies was completed with full-scale design underway.

Water use inspections were performed within all commercial facilities to ensure potentially hazardous “end-uses” are effectively contained.

The Town received a commendation from the Center for Disease Control and Prevention (CDC) for consistent and professional adjustment of fluoride to the public water system.

CPW’s Water Division established a new targeted and controlled flushing program to maintain high water quality within low flow areas of Town.

A leak detection survey was completed on 50% of the distribution system — in the northern section of Town resulting in the recovery of an estimated 4.2 million gallons of water per year.

For questions about this report or to learn more about protecting Concord’s water supply, contact Melissa Simoncini, Senior Environmental and Regulatory Coordinator at 978-318-3250.
To ensure that tap water is safe to drink, the EPA enforces regulations that require stringent monitoring of specific contaminants within public water supply systems. Within Concord’s system, over 500 tests are run each year to assess approximately 145 potential contaminants like bacteria, perchlorate, pesticides, metals, etc. Only substances detected in Concord’s drinking water in 2013 are listed in the summary table below. The presence of these substances does not indicate that the water poses a health risk. These substances are divided into 4 categories, Microbiological, Primary, Secondary, and Lead & Copper Parameters. The Primary parameters list includes contaminants and associated limits of these contaminants that can adversely affect public health and are known or are anticipated to occur in public water systems. Secondary parameters are set for aesthetic purposes and are designed to assist the EPA in determining their occurrence in drinking water and whether future regulation is warranted. We are proud to report that Concord’s water quality testing program not only meets EPA’s requirements for drinking water but goes above and beyond those requirements to satisfy the higher standards we have set for ourselves. Additional water quality information is available on our website at www.concordma.gov/water.

### Water Quality Summary

**Microbiological Parameters**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Units</th>
<th>Highest Level Detected</th>
<th>Range of Levels Found</th>
<th>Highest Level Allowed (EPA’s MCL)</th>
<th>Ideal Goal (EPA’s MCLG)</th>
<th>Violation</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giardia lamblia</td>
<td>oocyst/10L</td>
<td>3</td>
<td>ND-3</td>
<td>TT</td>
<td>0</td>
<td>No</td>
<td>Discharged especially where water is contaminated with sewage or animal wastes</td>
</tr>
<tr>
<td>Heterotrophic Plate</td>
<td>CFU/mL</td>
<td>143</td>
<td>143</td>
<td>TT</td>
<td>No Standard</td>
<td>No</td>
<td>Heterotrophic plate count is an indicator method that measures a range of naturally-occurring bacteria in the environment</td>
</tr>
<tr>
<td>Total Coliform Bacteria</td>
<td>Pos. Samples/ Month</td>
<td>1</td>
<td>0-1</td>
<td>1</td>
<td>0</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

**Primary Parameters**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Units</th>
<th>Highest Level Detected</th>
<th>Range of Levels Found</th>
<th>Highest Level Allowed (EPA’s MCL)</th>
<th>Ideal Goal (EPA’s MCLG)</th>
<th>Violation</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium</td>
<td>ppb</td>
<td>36</td>
<td>10-36</td>
<td>2000</td>
<td>2000</td>
<td>No</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Bromate</td>
<td>ppb</td>
<td>6.9</td>
<td>ND</td>
<td>10</td>
<td>0</td>
<td>No</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorine</td>
<td>ppm</td>
<td>0.25</td>
<td>ND-1.18</td>
<td>4 (MRDL)</td>
<td>4 (MRDL)</td>
<td>No</td>
<td>Water treatment for disinfection</td>
</tr>
<tr>
<td>Fluoride</td>
<td>ppm</td>
<td>1.6</td>
<td>0.1-1.6</td>
<td>4</td>
<td>4</td>
<td>No</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Haloacetic Acids</td>
<td>ppb</td>
<td>3.9</td>
<td>1.1-25</td>
<td>60</td>
<td>No Standard</td>
<td>No</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Nitrate</td>
<td>ppm</td>
<td>2.1</td>
<td>0.097-2.1</td>
<td>10</td>
<td>10</td>
<td>No</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</td>
</tr>
<tr>
<td>Perchlorate</td>
<td>ppb</td>
<td>0.12</td>
<td>ND-0.12</td>
<td>2</td>
<td>No Standard</td>
<td>No</td>
<td>Rocket propellants, fireworks, munitions, flares, blasting agents</td>
</tr>
<tr>
<td>Combined Radium</td>
<td>pCi/L</td>
<td>1.9</td>
<td>ND-1.9</td>
<td>5</td>
<td>0</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Trihalomethanes</td>
<td>ppb</td>
<td>14.1</td>
<td>ND-38</td>
<td>80</td>
<td>No Standard</td>
<td>No</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>0.98</td>
<td>0.55-0.98</td>
<td>5</td>
<td>1</td>
<td>No</td>
<td>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of disinfectants</td>
</tr>
</tbody>
</table>

**Secondary Parameters**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Units</th>
<th>Highest Level Detected</th>
<th>Range of Levels Found</th>
<th>Highest Level Allowed (EPA’s MCL)</th>
<th>Ideal Goal (EPA’s MCLG)</th>
<th>Violation</th>
<th>Major Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>ppm</td>
<td>30</td>
<td>5-30</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Chloride</td>
<td>ppm</td>
<td>190</td>
<td>26-190</td>
<td>250</td>
<td>250</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Copper</td>
<td>ppm</td>
<td>0.11</td>
<td>ND-0.11</td>
<td>1.3</td>
<td>1.3</td>
<td>No</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives</td>
</tr>
<tr>
<td>Hardness</td>
<td>ppm</td>
<td>110</td>
<td>20-110</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Iron</td>
<td>ppm</td>
<td>120</td>
<td>ND-120</td>
<td>300</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Magnesium</td>
<td>ppm</td>
<td>8.7</td>
<td>1.4-8.7</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Manganese</td>
<td>ppm</td>
<td>34</td>
<td>ND-34</td>
<td>50</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Methyl Tertiary-Butyl Ether</td>
<td>ppb</td>
<td>1.9</td>
<td>1.6-1.9</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Fuel Additive</td>
</tr>
<tr>
<td>Potassium</td>
<td>ppm</td>
<td>57</td>
<td>4.1-57</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Sodium</td>
<td>ppm</td>
<td>84</td>
<td>11-84</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>By-product of drinking water treatment; Naturally present in the environment</td>
</tr>
<tr>
<td>Sulfate</td>
<td>ppm</td>
<td>38</td>
<td>ND-38</td>
<td>250</td>
<td>No Standard</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>ppm</td>
<td>430</td>
<td>130-430</td>
<td>500</td>
<td>500</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

**Lead & Copper Parameters**

| Substance | Units | 90th Percentile Level Detected | 90th Percentile Action Level (AL) (EPA’s MCL) | # samples (# exceeding AL) | Ideal Goal (EPA’s MCLG) | Exceeds Action Level | Major Sources in Drinking Water |
|-----------|-------|------------------------|----------------------------------|------------------------|-------------------------|-----------------------|------------------------|---------------------------------|
| Lead      | ppb   | 3.1                    | 15                               | 30 (0)                 | 0                       | No                    | Corrosion of household plumbing systems; Erosion of natural deposits; see statement below |
| Copper    | ppm   | 0.48                   | 1.3                              | 30 (0)                 | 1.3                     | No                    | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservative; see statement below |

**Units**

- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- pCi/L: picocuries per liter
- NTU: Nephelometric Turbidity Units
- MCL: Maximum Contaminant Level
- MCLG: Maximum Contaminant Level Goal
- MRD: Maximum Residual Disinfectant Level
- MRDL: Maximum Residual Disinfectant Level Goal
- RD: Recommended Daily Intake
- ND: none detected
- MR: mg/L
- mg/L: milligrams per liter
- NG: none detected
- mg/m³: milligrams per cubic meter
- mcg/L: micrograms per liter
- µg/L: micrograms per liter
- µg/m³: micrograms per cubic meter
- µg/g: micrograms per gram
- µg: micrograms

**Footnotes**

1. Fluoride: A 1969 Town meeting vote authorized the Concord Board of Health, to order the upward adjustment of the fluoride content of the water supply available for domestic use in the Town of Concord. Drinking Water fluoridation using Sodium Fluoride began in 1970. For questions about water fluoridation, contact the Concord Health Department at 978-318-3275. The Massachusetts Department of Public Health’s ideal goal for fluoride is 1 ppm.

2. Haloacetic Acids, Trihalomethanes, Bromate and Free Chlorine: The highest level detected represents the highest running annual average for these contaminants. The range of levels found may have results in excess of the MCL, but the running annual average of all sample locations is used to determine compliance.

3. Lead and Copper: In accordance with EPA regulations, Concord Public Works tests the tap water of 30 homes in Concord for lead and copper every 3 years. Testing was last done during Summer 2011 and is next scheduled for completion during summer of 2014. EPA determines whether the protection against corrosion is sufficient by requiring that at least 90% of the sampled homes have lead levels under 15 parts per billion (ppb). This is called the Action Level.
**Water Supply**
Concord’s water system consists of six groundwater supplies located in Concord and one surface water supply located on the Acton/Littleton town line. In addition, it has associated pumping stations, two storage reservoirs with a 7.5 million gallon total capacity, approximately 130 miles of water main, and over 1,250 fire hydrants. Depending on the season, all available production facilities may be called upon to satisfy system demands which may fluctuate between 1.5 million gallons per day (MGD) during the winter months to over 4 MGD in the summer. Concord’s public water system is interconnected with Acton and Bedford for emergency backup, if ever needed.

**Water Treatment**
In accordance with State and Federal drinking water requirements, Concord’s water is treated before it gets to your tap. Treatment includes: disinfection—via the addition of liquid chlorine at all supplies plus ozone/UV light at the Nagog Pond water supply; corrosion control—via the addition of potassium hydroxide and polyphosphate to raise the natural pH of the water and reduce its corrosiveness to household plumbing; fluoridation—via the addition of sodium fluoride to help in the prevention of tooth decay; iron sequestration—performed by adding polyphosphate to reduce the frequency of discoloration events; and iron and manganese removal—performed by pressure filtering the Deaconess and White Pond wells. Due to a high level of water quality in Nagog Pond, the Town continues to operate this source under a filtration waiver. Chemical adjustments and disinfection are provided as noted in the Source Treatment Table (below) to ensure that safe drinking water is delivered to customer’s taps.

**Drinking Water and People with Weakened Immune Systems**
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 infants can be particularly at risk from infections. These people should seek advice 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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**SOURCE TREATMENT**

<table>
<thead>
<tr>
<th>Source ID</th>
<th>Nagog Pond, Acton, MA</th>
<th>Jennie Dugan Well</th>
<th>Deaconess Wells</th>
<th>White Pond Wells</th>
<th>Second Division Well</th>
<th>Robinson Well</th>
<th>Hugh Cargill Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Water Protection (SWAP) susceptibility rating*</td>
<td>High</td>
<td>Moderate</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

*Susceptibility ratings were developed as a part of the SWAP report and reflect the proximity of potential contaminant sources like farms, golf courses and residential houses to water supplies. Complete SWAP reports are available at 135 Keyes Road and online at http://www.mass.gov/eea/docs/dep/water/drinking/swap/nero/I967000.pdf.
Water Conservation

It’s Only a Small Drip…Right?

Imagine that the dot inside these brackets [•] is the only hole in your home’s water system. Based on size alone, that hole may not seem especially worth tracking down; however, that hole can waste more than 4,000 gallons of water each month, or enough water to shower every day for a year! When you consider how important water is to so many aspects of our daily lives, ranging from agriculture to industry to simple hydration and nutrition, you come to realize how even that tiny hole deserves our immediate attention.

Studies show that leaks account for as much as 14% of all indoor water use, which is equivalent to 10 gallons per person of water lost each day. According to the EPA, 10% of American homes have leaks that waste 90 gallons or more per day! To ensure that you’re not sending extra water and money down the drain, here are some strategies to help keep your home as leak-free as possible.

Checking for Leaks
A good way to determine if you have a leak in your home is to check your winter water usage. If a family of four use more than 12,000 gallons of water per month during the colder months, it is likely that there is a serious leak.

Your water meter is another great resource you can utilize when trying to determine whether or not your water-using appliances and fixtures have “silent” leaks. Your water meter measures the amount of water entering your home or business, and most are located on the basement level near the wall closest to the street. In Concord, the meters use straight-reading dials that are read in the same way as a car’s odometer. To use your water meter to determine if you have a leak, take the following steps:

• **Turn off all indoor and outdoor faucets tightly**, as well as all water-using appliances. This includes water dispensers and ice-makers in refrigerators.

• **Use no water for 20-minutes.**

• **Check your water meter.** The small black or red triangle or the red needle that rotates are low-flow indicators or “leak detectors” that sense very small amounts of water passing through the meter. If this dial is moving, chances are, you have a leak.

• Additionally, you can record the meter reading number and check back an hour or two later. Do not use any water. If the second reading is higher, you likely have a leak.

Common Culprit: Leaky Toilets
Leaky toilets can plague both new and old homes, and are the most common cause of high water bills. They can range from small to large, constant to random, or from audible to silent. Fortunately, most toilet leaks are relatively easy and inexpensive to repair.

A simple way to determine if you have a leaky toilet is to use food coloring, or stop by the Water & Sewer Division and pick up a Toilet Leak Detection Kit. First, remove the tank lid. Then, add either a few drops of food coloring or one dye tablet to the tank to turn the water a different color. Put the tank lid back on, and wait 15 minutes without flushing. If food coloring or dye appears in the bowl, the flapper valve in your toilet is leaking and should be replaced! This is the most common type of toilet leak.

The second most common type of toilet leak is caused by an improperly adjusted or broken fill (ballcock) valve. If the float is set too high or if the shut-off valve fails completely, water will continuously enter the tank and flow into the overflow tube. You can see this type of leak simply by removing the tank lid and observing if water flows into the overflow tube once the tank is full.

Common Culprit: Leaky Faucets
A leaky faucet that drips at the rate of only one drip per second can waste more than 3,000 gallons of water each year! If you notice a dripping faucet in your home, first try closing it tightly. If that doesn’t stop the drip, the most likely cause is a worn out rubber washer. With the right tools, a worn or damaged washer is relatively easy and inexpensive (less than $5.00) to replace.

This process does require shutting off the water under the sink and removing the sink handle. For a helpful instructional guide on repairing a faucet, visit [http://www.diynetwork.com/how-to/how-to-repair-a-compression-faucet/index.html](http://www.diynetwork.com/how-to/how-to-repair-a-compression-faucet/index.html). For an instructional video on how to replace a washer, visit [http://www.youtube.com/watch?v=15A0V7fj_Lo](http://www.youtube.com/watch?v=15A0V7fj_Lo).
Our Watershed, Our Life

A watershed is an area of land that collects all of the water running under it and draining off of it into a single, larger body of water, such as a river, lake, or stream. Watersheds come in all shapes and sizes and cross county, state, and national boundaries. They supply us with our drinking water, water for agriculture, offer opportunities for recreation, and provide habitats for all sorts of plants and animals. Watersheds sustain life, which is why proper watershed protection is essential for our community.

There are a number of ways residents can practice watershed protection at home, helping to protect the quality of Concord’s untreated water supply and ensuring cost effective, safe drinking water. Here are five easy ways to help protect our drinking water supply today and every day:

• **Do not flush your unused pharmaceuticals!** Instead, bring your unwanted medications and sharps to Concord’s semi-annual DropOff Day, sponsored by Concord Public Works and REUSIT, for proper disposal. This year’s DropOff days will be May 10th and October 18th at 135 Keyes Road.

• **Do not dump hazardous waste** into household drains, storm drains, on the ground, or in the trash. Instead, bring hazardous waste to the MinuteMan Regional Household Hazardous Waste Facility in Lexington one weekend/month April–November. Curbside subscribers receive a free pass and non-subscribers pay the facility directly. Visit www.concordma.gov/recycle for more information.

• **Landscape with low-maintenance, native plants.** Native plants are more tolerant of drought conditions, require little or no watering, and are better suited to local soils and pests, reducing the need for fertilizers and pesticides.

• **Avoid or minimize use of fertilizers and pesticides.** Save money and protect the watershed by using garden chemicals sparingly. Avoid applying fertilizers and pesticides if rain is forecast within the next 24-hours, and always store chemicals in a protected area to prevent runoff. Consider using organic or slow release lawn-care products as an alternative.

• **Keep stormwater clean by practicing healthy household habits.** Keep common pollutants like cleaning products, pet waste, yard clippings, pesticides, and automotive fluids off of the ground and out of stormwater. Visit www.concordma.gov/engineering for more information.

The Challenge Ahead

In the months and years to come, one of the biggest challenges CPW’s Water & Sewer Division will face is that of balancing the water supply needs and demands of our customers with the needs and demands of the environment. New regulations in Massachusetts may soon limit the amount of water we can withdraw and provide to you, our valued customer. By working together to conserve water, we can ensure that we have a sustainable water supply for many years to come.
Cross Connection Control and You

Concord Public Works’ Water Rules and Regulations, as well as Massachusetts’ drinking water regulations, require that public water systems be protected from potential contamination resulting from cross connections.

What is a cross connection?
A cross connection occurs whenever a potable drinking water line is directly or indirectly linked to a piece of equipment or piping containing non-potable (polluted) water.

Why should I be concerned?
An unprotected or inadequately protected cross connection in your home or workplace could contaminate the drinking water not only in your building, but also in neighboring homes and businesses. Severe illnesses have been caused by cross connection contamination that could have been prevented.

How does this happen?
Typically this occurs when equipment, plumbing fixtures or attachments such as garden hoses may contain chemicals or water that becomes contaminated over time. When something unexpected happens that alters water pressure in the line or the direction of water flow, contaminants are then sucked from the equipment and into the drinking water line.

Can it happen at my home?
Outdoor hose bibbs and garden hoses tend to be the most common sources of cross connections at home. The garden hose creates a hazard when submerged in non-potable water such as a swimming pool or when attached to a chemical sprayer for weed killing. Fertilizer, garden chemicals or other materials may contaminate hoses left lying on the ground. Other household cross connections can occur when lawn irrigation systems, boilers, water filtration devices, and fire service systems are connected to the home’s plumbing.

How can I be protected?
All industrial, commercial and institutional facilities are annually surveyed to ensure that all potential cross connections are identified and eliminated or protected by a backflow preventer. We also inspect and test these backflow preventers to make sure they are providing maximum protection. At home, do not attach any chemical or non-potable liquid applicators to anything connected to your plumbing system. Outdoors, install hose bibb vacuum breakers on any outside faucet. Owners of in-ground irrigation systems are required to have an operable backflow preventer installed on the system.

What is a Backflow Preventer?
A Backflow Preventer is a mechanical device installed in the plumbing line to prevent the introduction of pollutants or contaminants into the drinking water supply. Types include reduced principal assembly, (RPBP) double check valve assembly (DCVA), pressure vacuum breaker assembly (PVB) and “air gap”. The most simple type is the “air gap” or simply keeping the end of the water line or hose from coming in direct contact with the vessel being filled with water.

Where can I get more information?
If you need more information you can contact the Plumbing Inspector’s office or the Water & Sewer Division.

Potential Sources of Contaminants

Contaminants that may be present in source water include:
• 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 storm water 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 storm water runoff, and residential uses.
• 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 storm water runoff, and septic systems.
• Radioactive contaminants 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 (MassDEP) and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least some small amounts of certain substances which the EPA calls “contaminants.” The presence of these substances does not necessarily indicate that the water poses a health risk. For example, naturally occurring dissolved minerals are commonly found in well water. More information about the substances found in drinking water and their potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline at 1-800-426-4791 or the Massachusetts Drinking Water Program at 1-617-292-5770.

Get Involved

The Public Works Commission oversees the work of Concord Public Works. Their meetings provide an opportunity to become more involved in issues relating to the water system. They typically meet the second Wednesday of each month at 7:15 pm. Please check the PWC website for exact dates and location. www.concordma.gov/Pages/ConcordMA_Publicworks/commission.

For more information regarding water quality and resource protection initiatives, or if you have a neighborhood concern in a resource protection area (depicted on the map on page 3), please contact Melissa Simoncini, Senior Environmental & Regulatory Coordinator at 978-318-3250 or msimoncini@concordma.gov.
Water Quality

Lead & Copper

In accordance with U.S Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) regulations, Concord’s Water Division tests for lead and copper on a three-year schedule. The last round of lead and copper sampling was completed in late summer 2011 and will be repeated in late summer 2014. A total of 30 homes throughout Concord are sampled on this schedule to confirm the effectiveness of our corrosion control efforts. The two graphs on this page summarize Concord’s compliance levels for the past five compliance periods. More information is available in the Water Quality Summary on page 2.

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. Concord Water 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 EPA’s Safe Drinking Water Hotline at http://water.epa.gov/drink/info/lead or visit the Concord Water & Sewer website at www.concordma.gov/cpw.

Educational Opportunities

Want to increase your water conservation IQ? If so, please join us for one (or both) of the following free workshops. To ensure adequate materials are available, please register by calling 978-318-3259 or by emailing watersmart@concordma.gov.

IS A RAIN GARDEN RIGHT FOR YOU? 4–5 PM, Thursday, April 3, Junction Park
Discover how planting native plants in your garden can help to filter runoff, recharge local groundwater supplies, and reduce your water consumption all while enhancing the beauty of your yard! Rain Gardens are bowl shaped depressions designed to absorb, infiltrate and treat up to 30% more water than the same size area of lawn. What a beautiful way to reduce flooding and improve water quality! (Limit 15)

IRRIGATION SYSTEMS 101. 6:30–7:30 PM, Tuesday, April 15, 141 Keyes Road
Certified irrigation professionals, from Corbett Irrigation in Concord, MA, will provide guidance on the proper operation and maintenance of in-ground irrigation systems. The intent is to educate homeowners on the preservation of your investment, the impacts on the water supply, varying environmental conditions and your wallet while sustaining summer resiliency. Basic system programing, maintenance and challenges will be discussed through an interactive presentation followed by a Q&A session.
2014 Rain Barrel Program
Special offer for Concord Water Customers

- Natural Whiskey Barrels: $175.50
- Refinished Whiskey Barrels: $200.50
- Plastic Barrels: $72.50

Available in Black, Blue, Grey and Terracotta

Order deadline is Tuesday, April 22, 2014.
For more information and to place your order, visit www.upcycle-products.com and select the Concord, MA Order Form on the right-hand side of the homepage.

Seasonal Water Demand Management Plan
Town of Concord, Massachusetts

### Seasonal Water Conservation Advisory
- Best Management Practices
- Residential Water Conservation Rates in Effect May 1–September 30

### Outdoor Water Use Restriction
- Water Demand Approaching Limit of Supply OR Drought Watch/Warning in Effect

### Outdoor Water Use Emergency
- Water Demand Has Exceeded Supply, Water Pressure/Fire Protection at Risk OR Drought Emergency in Effect

<table>
<thead>
<tr>
<th>OUTDOOR WATER ACTIVITIES</th>
<th>Recommended¹</th>
<th>Restricted²</th>
<th>Prohibited²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn Watering</td>
<td>Max 2 Day per Week (before 9am)</td>
<td>Max 2 Day per Week (before 9am)</td>
<td></td>
</tr>
<tr>
<td>Swimming Pools</td>
<td>OK Filling or Topping Off</td>
<td>Restricted² Topping Off Only</td>
<td>Prohibited²</td>
</tr>
<tr>
<td>Washing Car/Truck/Boat</td>
<td>OK</td>
<td>Recommended Bring to Commercial Car Wash</td>
<td>Prohibited² Bring to Commercial Car Wash</td>
</tr>
<tr>
<td>Flower Beds &amp; Vegetable Gardens</td>
<td>OK</td>
<td>Recommended Handheld Watering Only</td>
<td>Restricted² Handheld Watering Only</td>
</tr>
</tbody>
</table>

¹ Unless otherwise advised by qualified lawn care specialist.
² Enforceable with fines ($50, 1st offense. $100, subsequent offenses).

You can help conserve water indoors all year long by utilizing the following recommended practices:
- Only wash full loads in your laundry and dish washing machines.
- Keep showers short and remember that showers use less than baths.

Visit concordma.gov for current State of Demand Management
Sign up for Water and Sewer Division email updates by subscribing to News and Notices on the concordma.gov homepage.