To Our Customers

I am pleased to present you with this year’s Annual Water Quality Report. This report provides detailed information on where your drinking water comes from, its quality, the different treatment processes used to enhance it, and tips on how you can increase your water use efficiency. Concord’s drinking water quality continues to meet or exceed all State and Federal drinking water standards.

Over the years, I have come to appreciate that customers are happiest when they don’t have to think about their water use or water system. In this regard, 2011 was notably uneventful in terms of your public water supply. Moving forward, I would be remiss if I did not take this opportunity to inform you that we are about to enter a whole new era when it comes to water supply, capacity and demand management. Unlike last summer, it is setting up to be an especially interesting and challenging season.

First and foremost, the Massachusetts Department of Environmental Protection (MassDEP) has re-interpreted source water quality monitoring and reporting requirements outlined within the long-standing Nagog Pond filtration “waiver” issued to the Town back in 1992. This decision effectively put the Town on notice that this waiver would be jeopardized once this source was re-activated. Once forfeited, the Town will be directed to design and construct a costly filtration facility. A lack of winter snowfall and spring rain is already raising regional concerns regarding drought. To further complicate matters, planned rehabilitation activities underway at several of our water production facilities (including Nagog) will limit our supply until mid-summer.

Even with recent rainfall, the Water Division has begun to reach out to all of our customers and remind them of the importance and merits of using water wisely—particularly when it comes to efficient outdoor water use. If voluntary conservation efforts prove to be ineffective, the Public Works Commission will have no choice but to declare outdoor water use restrictions, in accordance with the Town of Concord’s Water Use Restriction Bylaw (1995).

On a more positive note, the information enclosed should provide reassurance as to the overall water quality of the Town’s water and provide information as to how best to conserve this valuable resource. If you have any questions or have any suggestions regarding this report, please feel free to call me at 978-318-3250.

Respectfully,

Alan H. Cathcart
Superintendent, Water/Sewer Division, Concord Public Works
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 2011 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 3 categories, Primary, Secondary, and Lead & Copper Parameters. The Primary parameters list contains 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.

### 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>Arsenic</td>
<td>ppb</td>
<td>2</td>
<td>ND-2</td>
<td>10</td>
<td>0</td>
<td>No</td>
<td>Erosion of Natural Deposits; Runoff from orchards; Runoff from glass and electronics production wastes</td>
</tr>
<tr>
<td>Barium</td>
<td>ppb</td>
<td>33</td>
<td>7-33</td>
<td>2000</td>
<td>2000</td>
<td>No</td>
<td>Erosion of Natural Deposits; By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Bromate</td>
<td>ppb</td>
<td>4</td>
<td>2-4.1</td>
<td>10</td>
<td>0</td>
<td>No</td>
<td>Water treatment for disinfection; By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorine</td>
<td>ppm</td>
<td>0.39</td>
<td>0.03-1.62</td>
<td>4 (MRDL)</td>
<td>4 (MRDLG)</td>
<td>No</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth;</td>
</tr>
<tr>
<td>Fluoride</td>
<td>ppm</td>
<td>1.7</td>
<td>0.8-1.7</td>
<td>4</td>
<td>4</td>
<td>No</td>
<td>discharge from fertilizer and aluminum factories;</td>
</tr>
<tr>
<td>Haloacetic Acids</td>
<td>ppm</td>
<td>3.2</td>
<td>0.7-8.3</td>
<td>60</td>
<td>No</td>
<td>Standard</td>
<td>Erosion of natural deposits; By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Nitrate</td>
<td>ppm</td>
<td>2.5</td>
<td>0.05-2.5</td>
<td>10</td>
<td>10</td>
<td>No</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage;</td>
</tr>
<tr>
<td>Perchlorate</td>
<td>ppm</td>
<td>0.14</td>
<td>ND-0.14</td>
<td>2</td>
<td>No</td>
<td>Standard</td>
<td>Erosion of natural deposits; Rocket propellants, fireworks, munitions, flares, blasting agents</td>
</tr>
<tr>
<td>Combined Radium</td>
<td>g/L</td>
<td>1.1</td>
<td>ND-1.1</td>
<td>5</td>
<td>0</td>
<td>No</td>
<td>Erosion of natural deposits; Discharge from metal refineries; Erosion of natural deposits;</td>
</tr>
<tr>
<td>Selenium</td>
<td>ppm</td>
<td>8</td>
<td>ND-8</td>
<td>50</td>
<td>50</td>
<td>No</td>
<td>Discharge from mines;</td>
</tr>
<tr>
<td>Trihalomethanes</td>
<td>ppm</td>
<td>11.8</td>
<td>1.5-32</td>
<td>80</td>
<td>No</td>
<td>Standard</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>2.5</td>
<td>0.2-2.5</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</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>36</td>
<td>12-36</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits; Naturally present in the environment</td>
</tr>
<tr>
<td>Chloride</td>
<td>ppm</td>
<td>190</td>
<td>23-190</td>
<td>250</td>
<td>250</td>
<td>No</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits;</td>
</tr>
<tr>
<td>Copper</td>
<td>ppm</td>
<td>0.042</td>
<td>ND-0.042</td>
<td>1.3</td>
<td>1.3</td>
<td>No</td>
<td>Leaching from wood preservatives;</td>
</tr>
<tr>
<td>Hardness</td>
<td>ppm</td>
<td>90</td>
<td>30-90</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>96</td>
<td>ND-96</td>
<td>200</td>
<td>No Standard</td>
<td>No</td>
<td>Erosion of natural deposits;</td>
</tr>
<tr>
<td>Magnesium</td>
<td>ppm</td>
<td>10</td>
<td>2.7-10</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>30</td>
<td>ND-30</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>ppm</td>
<td>2.3</td>
<td>0.9-2.3</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>49</td>
<td>16-49</td>
<td>No Standard</td>
<td>No Standard</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Sodium for raw/untreated water</td>
<td>ppm</td>
<td>85</td>
<td>9.5-85</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>43</td>
<td>nd-43</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>470</td>
<td>140-470</td>
<td>500</td>
<td>500</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

### Lead & Copper Parameters

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

**T E R M S & A B B R I A T I O N S**

**Action Level**: The concentration of a contaminant that, 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. MCLGs are set as close to the MCL 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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppb: parts per billion or micrograms per liter

ppm: parts per million or milligrams per liter

pCi/L: picocuries per liter

ND: none detected

NTU: Nephelometric Turbidity Units

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 expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**FOOTNOTES**

1. Fluoride: The Concord Board of Health voted to fluoridate the drinking water in 1969. Fluoridation using Sodium Fluoride began in 1970. For questions about water fluoridation, contact the Concord Board of Health at 978 318 3275. The Massachusetts Department of Public Health’s ideal goal for fluoride is 1 ppm.

2. Haloacetic Acids, Trihalomethanes 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. Turbidity: Turbidity is a measure of the cloudiness of the water. We monitor it because it is an indicator of good water quality and the effectiveness of disinfectants.
Water Supply
Concord’s water system consists of six groundwater supply wells 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 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 groundwater supplies and ozone/UV light plus chlorine gas 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).

<table>
<thead>
<tr>
<th>Source ID</th>
<th>Nagog Pond, Acton, MA</th>
<th>Jennie Dugan Well</th>
<th>Deaconess Well</th>
<th>White Pond Well</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 www.mass.gov/dep/water/drinking/3067000.

Residents can help to protect Concord’s water supplies by:
- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town meeting
- Limiting pesticide and fertilizer use
Water Conservation

The summer of 2012 is shaping up to be a potentially interesting summer when it comes to drinking water supply (availability) and demand (customer use) issues. This is attributed to the lack of available supply due to the dry winter and non-routine operational constraints.

Water levels across the northeast were at record lows for the spring due to the lack of precipitation over last winter. According to the US Geological Survey (USGS) at a time when water levels are usually on the rise, water levels are dropping. This unusual phenomenon is occurring at the same time that Concord Water has embarked upon several non-routine water supply facility upgrades. Specifically two separate contracts have been awarded for the rehabilitation and installation of a new satellite well at the Deaconess Water Treatment site and a complete rehabilitation of the Nagog Pond Booster Pumping Station. Both projects are expected to be finished and producing water by mid-summer.

What this means is that there is a high likelihood that the Public Works Commission may have to declare an Outdoor Water Use Restriction or if ineffective, an Outdoor Water Use Emergency, depending on customer response. Please be aware that now more than ever Concord Water needs your support in responsible management of your outdoor watering practices.

This table illustrates the differing water demand throughout the year and Concord Water’s ability to supply water. Note that the maximum amount of water available from all existing water supplies is limited to 4.0 million gallons per day (MGD). If our largest source of supply is taken off-line due to an operational upset, our available supply can be reduced to 3.1 MGD. Under such a condition we could continue to meet our Average Summer Demand, however we cannot sustain long periods of Peak Day Demand.

Available Supply (all sources) = 4.0 MGD
Available Supply (without largest source) = 3.1 MGD

Town of Concord Water Demand Summary

<table>
<thead>
<tr>
<th>Available Supply (all sources) = 4.0 MGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available Supply (without largest source) = 3.1 MGD</td>
</tr>
</tbody>
</table>

- Average Daily Demand (2.0)
- Average Winter Demand (1.7)
- Average Summer Demand (2.5)
- Average Peak Day Demand (3.9)

Have you registered your home irrigation system?

By registering your in-ground irrigation system (as required by Town bylaw) Concord Water will send you free educational information and reminders to help you effectively manage your system. Minimizing your outdoor water footprint will not only save water and energy but your lawn will be more healthy and drought resistant.

To request an irrigation assessment or information on how to register your system, please visit www.concordma.gov/water or call 978-318-3250.

Increase Your Water IQ

Informative books and movies for all ages available through the Minuteman Library Network

Informative Books

Unquenchable: America’s Water Crisis and What to Do About It (R. Glennon)
Plain Talk about Drinking Water: Questions and Answers about the Water You Drink (J. Symons)

For the kids

Not a Drop to Drink: Water for a Thirsty World (M. Burgan)

Video

When the Tap Runs Dry (AMBROSE VIDEO PUBLISHING)
Seasonal Water Demand Management Plan
Town of Concord, Massachusetts

<table>
<thead>
<tr>
<th><strong>Seasonal Water Conservation Advisory</strong></th>
<th><strong>Outdoor Water Use Restriction</strong></th>
<th><strong>Outdoor Water Use Emergency</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Water Conservation Rates in Effect May 1–September 30</td>
<td>Water Demand Approaching Limit of Supply OR Drought Watch/Warning in Effect</td>
<td>Water Demand Has Exceeded Supply, Water Pressure/Fire Protection at Risk OR Drought Emergency in Effect</td>
</tr>
</tbody>
</table>

**O U T D O O R W A T E R A C T I V I T I E S**

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

High Water Bills Get you Down?
7 Easy Ways to Save Water Outdoors this Summer

1. **Watch the weather**—Watering practices should change with the weather. If the weather is cool, humid or rainy you should decrease watering time and/or skip scheduled watering. Make sure you know how to adjust your irrigation system accordingly.

2. **Let nature take its course**—The cool-season grasses in Concord’s lawns naturally go dormant in the heat of summer. When cooler temperatures return they will green up again. If you spend the month of August away at your summer home, why pay high water bills to artificially keep a lawn green that you’re not around to enjoy?

3. **Consider drip irrigation or soaker hoses**—Because it applies water directly onto the ground drip, irrigation is much more efficient than traditional sprinklers, particularly in flower and shrub beds. Evaporation is greatly reduced and the water is applied right where the plant needs it.

4. **Cover your pool**—The average outdoor pool loses an inch of water a week in the heat of the summer.

5. **Go native**—Native plants have evolved over time to thrive in Concord’s climate. Once established, they require little or no supplemental water and are practically maintenance-free. Visit the New England Wildflower Society’s website for more information at www.newfs.org.

6. **Get swept away**—Use a broom, instead of a hose, to clean driveways and sidewalks.

7. **Mulch it**—Applying mulch around plants keeps the soil underneath cool and moist, reducing watering needs.
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.

To protect drinking water, the Department 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.

### 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 bibs 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.

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### Three Ways to Help Protect Concord Water

Our drinking water supply is precious and we need to do everything we can to protect it. Protection of Concord’s untreated supply is the first line of defense in ensuring cost effective, safe drinking water.

**DO NOT FLUSH YOUR UNUSED PHARMACEUTICALS!** Bring your unwanted medications and sharps to the Unwanted Medication Collection Event sponsored by Concord Public Works and REUSIT, on Concord’s semi-annual DropOff Day, May 5th & October 13th @ 135 Keyes Road.

**DON’T DUMP HAZARDOUS WASTE** into drains, storm drains, on the ground or in the trash. Visit [www.concordma.gov/recycle](http://www.concordma.gov/recycle) to obtain a free pass to attend the household hazardous waste event at 133 Keyes Road on June 6 or one of the events in Lexington.

**KEEP STORMWATER CLEAN** by practicing healthy household habits. Keep common pollutants like pesticides, pet waste, grass clippings and automotive fluids off the ground and out of stormwater. [www.concordma.gov/engineering](http://www.concordma.gov/engineering)
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://www.epa.gov/safewater/lead or visit the Concord Public Works website at www.concordma.gov/cpw.

Fresh Water for Community Events
Two portable hydration stations are available for use at community events. Each station is equipped with 1 to 2 water bottle filling stations, 4 to 5 water bubblers and can be easily hooked up to a hose bib or hydrant to provide fresh, clean Concord water. Call Melissa at 978-318-3250 for additional details.
Concord Water wants to make it easy for you to conserve water both indoors and outdoors by providing FREE water conservation devices. Stop by our office at 135 Keyes Road, weekdays from 7:30–3:30 or call 978-318-3250.

- **Toilet Leak Detection Kit**—A simple test to determine if you have a leaky toilet.
- **Kitchen Dual Spray Aerator with Swivel**—This swiveling aerator has two settings—a stream for filling pots and a spray to help quickly wash your dishes.
- **Low Flow Shower Head**—An attractive, high quality shower head that uses 1–1.5 gallons per minute that doesn’t feel “low flow.”
- **Bathroom Aerator**—A 1.0 gallon per minute spray aerator.
- **“Water Miser” Garden Hose Nozzle**—Enjoy watering your garden with this six pattern spray nozzle that ranges from a fine mist to a high powered spray.