From the General Manager

Quality and conservation were major themes for the Madison Water Utility in 2009 as we continued to preserve and protect our supply of water, life’s most precious resource. Thanks to the dedication and diligence of our employees, I am pleased to report that Madison’s drinking water continues to meet or exceed all federal and state regulations.

In August we dedicated our first iron and manganese treatment facility at an east side well, and we are developing a series of projects to improve water supply and quality on the east side as a whole as well. To promote the efficient use of water, we continued the popular toilet rebate program for customers who replace older toilets with new high efficiency models, and we extended the offer to include apartment buildings. We are also excited to announce a major change in how we read meters and bill our customers, one that will bring numerous benefits in terms of water conservation, system integrity, and customer service. Beginning in 2011 and continuing through 2012, we will be modifying all water meters in the City to be read automatically on a daily basis. When the system goes online in 2013, customers will be able to immediately see the impacts of their conservation efforts by checking their water usage online.

To show you how we daily provide clean, plentiful water and protect our water supply, I’d like to invite you to our Open House at 119 E. Olin Avenue on Saturday, May 8, 10 a.m. to 3 p.m., to help us celebrate National Drinking Water Week. I look forward to seeing you there.

Tom Heikkinen, General Manager
Quality and reliability since 1882

Where does Madison tap water come from?

Madison drinking water comes from a deep sandstone aquifer, an underground rock formation where water is stored in small spaces between the rocks. Groundwater in the Madison area originates as rain or snow that falls in Dane County, soaks into the ground, and is filtered through layers of soil and rock before replenishing the aquifer. Natural filtration produces high-quality water for us to enjoy.

What keeps our water safe?

The high quality aquifer supplying our drinking water requires little treatment. Madison Water Utility disinfects the water with chlorine to reduce the risk of microbial contamination. A small amount of chlorine kills the bacteria and viruses that can be present in groundwater. Chlorine produces a free residual that travels with the water and is ready to kill bacteria or viruses it might encounter in the system. Our goal is to maintain a chlorine residual greater than 0.1 milligrams per liter (mg/L) at all points in the distribution system. Typical concentrations are in the range of 0.2-0.4 mg/L.

How else is the water treated?

Fluoride is added to Madison drinking water to improve dental health and reduce tooth decay. Water is tested daily to achieve a target level of 1.1 mg/L of fluoride. In 2009, over 5000 fluoride tests were conducted by Water Utility staff.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 Hotline (800-426-4791).

Cryptosporidium and Giardia, two organisms commonly linked to water-borne illness, are found primarily in surface waters. Because Madison’s drinking water comes from a deep groundwater aquifer, these organisms do not pose a significant health risk.

Potential contaminants and their likely sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, springs, and wells. As water travels over the surface of the land and through the ground, it may dissolve naturally occurring minerals, including radioactive material, and it can pick up substances that result from the presence of animals or from human activity. The types of potential contaminants and their likely sources include the following:

- **Microbial contaminants**, such as viruses and bacteria, may come from leaky sewer pipes, septic systems, livestock operations, or wildlife.
- **Inorganic contaminants**—metals, minerals, nutrients, and salts—can occur naturally or they may result from urban storm water runoff, industrial wastewater discharge, and farming activities.
- **Organic contaminants**, including man-made volatile organic compounds, are by-products of industrial processes that may come from chemical spills, gas stations, urban storm water runoff, and septic systems.
- **Pesticides and herbicides** primarily come from farming activities but may also derive from stormwater runoff and residential use.
- **Radioactive substances** may occur naturally in rock formations and groundwater.

Routine monitoring ensures that drinking water concentrations of any substance remain at safe levels.

Microbiological testing

**Bacteria** – To ensure drinking water safety, we conduct routine bacteriological tests. Over 200 distribution samples are collected each month from representative locations. The samples are tested for coliform bacteria, indicators of potential contamination. In 2009, the Water Utility collected over 2,800 distribution samples. Only one sample tested positive for coliform bacteria; follow-up samples did not confirm the initial positive result.
What substances are in Madison drinking water?

All water systems deal with contaminants in water. It is our responsibility to ensure that impurities remain at safe levels.

The EPA on drinking water contaminants

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses an increased health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s (EPA) Safe Drinking Water Hotline, 800-426-4791.

In August 2009, a new iron and manganese filter was dedicated at Well 29 on the east side. The project cost $1.8 million.

Inorganic contaminants

Hardness minerals, such as calcium and magnesium, come from the rock formations from which Madison draws its water. Madison tap water is considered “very hard” because it averages 350 mg/L or 20 grains per gallon of hardness. Hard water leaves residues and spots on dishes, glasses, and fixtures; requires more soap and detergent for cleaning; and can create scales that clog water pipes or foul appliances such as water heaters and dishwashers. Ion exchange water softeners remove hardness by replacing the calcium and magnesium with sodium salt.

Iron and manganese are two minerals commonly found in groundwater. They derive from the rock that makes up the aquifer. Most Madison wells have low or intermediate levels of these minerals while two wells (#7 and #8) have levels that can discolor the water. In 2009, the Water Utility Board adopted treatment policies for iron and manganese that establish the National Secondary Drinking Water Standards as the limit for iron and manganese levels observed at the customer tap. If annual hydrant flushing is insufficient to meet these standards, treatment or other management of the source water is required. The Water Utility is currently evaluating treatment options for Well 7 and Well 8.

Nitrate is a nutrient needed for normal plant growth. Fertilizer application, barnyard runoff, septic systems, and sludge spreading can increase the amount of nitrate in soil. Shallow private wells located adjacent to or downhill from farm fields, barnyards, or septic tanks are most vulnerable to nitrate contamination.

Radium is a naturally occurring radioactive substance that is commonly found in groundwater. Some people who drink water that contains radium in excess of the maximum contaminant level (MCL) over many years have an increased risk of getting cancer. All Madison wells were sampled in either 2008 or 2009; each tested below the MCL for radium.

Organic contaminants

Volatile organic compounds are man-made contaminants such as cleaning solvents and degreasers. They enter groundwater from spills or improper storage and disposal. Tetrachloroethylene (PCE) is found in water from seven Madison wells while trichloroethylene (TCE) is present at four wells. Regular monitoring ensures that concentrations do not exceed regulatory limits.

Disinfection byproducts are chemicals that form when chlorine interacts with impurities in groundwater. Because little organic matter is present in groundwater, the level of disinfection byproducts found in Madison drinking water is also very low.

Unregulated contaminants are substances for which the EPA has not yet established an MCL. Testing may be required to determine if a regulatory standard should be set. In 2008 and 2009, Madison wells were tested for 25 potential contaminants including pesticides, pesticide degrades, flame retardants, explosives, and nitrosamines. None of these chemicals were detected at any Madison well. More information on EPA’s Unregulated Contaminants Monitoring program can be found at [www.epa.gov/safewater/ucmr/](http://www.epa.gov/safewater/ucmr/).

Pharmaceuticals and personal care products (PPCP) enter the environment primarily from human excretion, disposal of unused medicines, and agricultural runoff. Drinking water plants located downstream of wastewater treatment plants are most susceptible to contamination. Although wastewater effluent containing PPCP can impair surface waters and negatively impact fish and amphibians living in them, a link between trace levels of PPCP in drinking water and human health risk has not been established.

To address this emerging concern, the Water Utility Board adopted in June 2009 a policy that identifies triggers for the initiation of testing. This policy is expected to be reviewed annually by the board. Although the utility has not screened its source waters for PPCP, tests conducted or requested by the Wisconsin State Laboratory of Hygiene and Wisconsin Geological and Natural History Survey have not detected any contaminants evaluated by EPA Method 1694.

Examples of Potential Contaminant Sources

- Animal feedlots
- Chemical spills
- Fertilizer and pesticide use or spill
- Landfills
- Road salt use or storage
- Septic tanks and drainfields
- Underground pipes and sewers
- Underground storage tanks

Discard your unused and outdated medicine

**MEDDROP**

Saturday, June 5 • 9 a.m. to 1 p.m.
La Follette High School • 702 Pflaum Rd.
How to read the water quality data tables

The EPA and Wisconsin Department of Natural Resources (WDNR) establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table.

Maximum Contaminant Level (MCL)
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 technology.

Maximum Contaminant Level Goal (MCLG)
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.

Secondary Maximum Contaminant Level (SMCL)
The level of a contaminant in drinking water above which it may cause cosmetic (skin or tooth discoloration) or aesthetic effects (taste, odor, or color) rather than health risks. EPA recommends secondary standards but does not require compliance from water systems.

Units in the table:
One milligram per liter (mg/L) equals one part per million (ppm)
One microgram per liter (µg/L) equals one part per billion (ppb)
One milligram per liter equals 1,000 micrograms per liter
One ppb is analogous to one second in 32 years

Picocurie per liter (pCi/L) is a measure of radioactivity
Siemen per centimeter (S/cm) is the standard unit of conductivity
s.u. = standard unit

Important note about the table:
The table reports the maximum and minimum concentrations for each substance found in at least one well. Several chemicals are found only in a few wells. Contaminant levels reported in the table may not be representative of the water quality at your home. Visit our website or call the Water Utility to get more information about water quality for the well that serves your home or business...

www.madisonwater.org

No contaminant tested above the MCL; only the levels of iron, manganese, and total solids from certain wells were above the recommended levels (SMCL).

### MICROBIOLOGICALS

<table>
<thead>
<tr>
<th>Highest Monthly Positive</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coliform Bacteria</td>
<td>Presence in &lt;5% of monthly samples</td>
<td>0</td>
</tr>
</tbody>
</table>

### INORGANIC CONTAMINANTS

<table>
<thead>
<tr>
<th>Regulated Inorganics</th>
<th>Units</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>µg/L</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
<td>0.2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Arsenic</td>
<td>µg/L</td>
<td>&lt;0.2</td>
<td>0.3</td>
<td>0.7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Barium</td>
<td>µg/L</td>
<td>7.8</td>
<td>18</td>
<td>64</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>Chromium</td>
<td>µg/L</td>
<td>0.3</td>
<td>0.8</td>
<td>2.5</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Flouride</td>
<td>mg/L</td>
<td>&lt;0.12</td>
<td>1.0</td>
<td>1.2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Lead</td>
<td>µg/L</td>
<td>&lt;0.2</td>
<td>&lt;0.2</td>
<td>0.5</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Mercury</td>
<td>µg/L</td>
<td>&lt;0.02</td>
<td>0.04</td>
<td>0.12</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nickel</td>
<td>µg/L</td>
<td>0.4</td>
<td>0.9</td>
<td>3.1</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Nitrate</td>
<td>mg/L</td>
<td>&lt;0.12</td>
<td>0.5</td>
<td>3.9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Selenium</td>
<td>µg/L</td>
<td>&lt;0.2</td>
<td>0.2</td>
<td>1.0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Thallium</td>
<td>µg/L</td>
<td>&lt;0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Radionuclides*

<table>
<thead>
<tr>
<th>Units</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Alpha</td>
<td>pCi/L</td>
<td>1.1</td>
<td>3.5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Gross Beta</td>
<td>pCi/L</td>
<td>1.4</td>
<td>3.3</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>Radium (226+228)</td>
<td>pCi/L</td>
<td>0.4</td>
<td>1.7</td>
<td>4.9</td>
<td>5</td>
</tr>
<tr>
<td>Uranium Total</td>
<td>µg/L</td>
<td>0.3</td>
<td>0.8</td>
<td>2.0</td>
<td>30</td>
</tr>
</tbody>
</table>

### Other Substances

<table>
<thead>
<tr>
<th>Units</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>SMCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalinity</td>
<td>mg/L</td>
<td>266</td>
<td>305</td>
<td>371</td>
</tr>
<tr>
<td>Aluminum</td>
<td>µg/L</td>
<td>0.5</td>
<td>0.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Calcium</td>
<td>mg/L</td>
<td>57</td>
<td>70</td>
<td>105</td>
</tr>
<tr>
<td>Chloride</td>
<td>mg/L</td>
<td>1.6</td>
<td>12</td>
<td>103</td>
</tr>
<tr>
<td>Conductivity</td>
<td>S/cm</td>
<td>503</td>
<td>632</td>
<td>1053</td>
</tr>
<tr>
<td>Copper</td>
<td>µg/L</td>
<td>1.3</td>
<td>3.3</td>
<td>43</td>
</tr>
<tr>
<td>Hardness</td>
<td>mg/L</td>
<td>284</td>
<td>350</td>
<td>489</td>
</tr>
<tr>
<td>Iron</td>
<td>mg/L</td>
<td>&lt;0.001</td>
<td>0.03</td>
<td>0.63</td>
</tr>
<tr>
<td>Magnesium</td>
<td>mg/L</td>
<td>34</td>
<td>41</td>
<td>55</td>
</tr>
<tr>
<td>Manganese</td>
<td>µg/L</td>
<td>&lt;0.2</td>
<td>14</td>
<td>55</td>
</tr>
<tr>
<td>Orthophosphorus</td>
<td>µg/L</td>
<td>&lt;0.01</td>
<td>&lt;0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>pH (lab)</td>
<td>s.u.</td>
<td>7.4</td>
<td>7.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Sodium</td>
<td>mg/L</td>
<td>2.3</td>
<td>6.6</td>
<td>35</td>
</tr>
<tr>
<td>Sulfate</td>
<td>mg/L</td>
<td>3.6</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td>Total Solids</td>
<td>mg/L</td>
<td>277</td>
<td>376</td>
<td>571</td>
</tr>
<tr>
<td>Zinc</td>
<td>µg/L</td>
<td>0.9</td>
<td>4.6</td>
<td>15</td>
</tr>
</tbody>
</table>

### ORGANIC CONTAMINANTS

<table>
<thead>
<tr>
<th>Regulated Organics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Dichloroethane</td>
<td>µg/L</td>
<td>&lt;0.15</td>
<td>0.17</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>cis-1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>&lt;0.10</td>
<td>0.40</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>µg/L</td>
<td>&lt;0.20</td>
<td>3.9</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Toluene</td>
<td>µg/L</td>
<td>&lt;0.12</td>
<td>2.2</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>µg/L</td>
<td>&lt;0.10</td>
<td>0.29</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>µg/L</td>
<td>&lt;0.18</td>
<td>0.40</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unregulated Organics</th>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorodifluoromethane</td>
<td>µg/L</td>
<td>&lt;0.16</td>
<td>0.23</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Methyl I-butyl ether</td>
<td>µg/L</td>
<td>&lt;0.13</td>
<td>0.14</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>µg/L</td>
<td>&lt;0.16</td>
<td>1.3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>µg/L</td>
<td>&lt;0.15</td>
<td>0.38</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>µg/L</td>
<td>&lt;0.14</td>
<td>0.20</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

### Disinfection By-products

<table>
<thead>
<tr>
<th>Units</th>
<th>Minimum</th>
<th>Maximum</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromodichloromethane</td>
<td>µg/L</td>
<td>&lt;0.20</td>
<td>2.7</td>
<td>0</td>
</tr>
<tr>
<td>Bromoform</td>
<td>µg/L</td>
<td>&lt;0.14</td>
<td>2.1</td>
<td>0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>µg/L</td>
<td>&lt;0.12</td>
<td>3.4</td>
<td>--</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>µg/L</td>
<td>&lt;0.16</td>
<td>2.6</td>
<td>60</td>
</tr>
<tr>
<td>Total Trihalomethanes (THM)</td>
<td>µg/L</td>
<td>--</td>
<td>7.6</td>
<td>80</td>
</tr>
<tr>
<td>Dibromoacetic acid</td>
<td>µg/L</td>
<td>&lt;0.14</td>
<td>1.3</td>
<td>60</td>
</tr>
</tbody>
</table>

*2008 and 2009 data
Water System Improvements

Water Main Projects
During 2009 the Water Utility replaced 6.5 miles of main at a cost of $6.4 million and added two miles of new main. Over the next 40 years, the Utility will need to replace more than 400 miles of the system to renew its infrastructure and maintain the current level of service.

East Side Water Supply
Madison Water Utility has obtained grant funding from the USEPA to study long-term water supply and quality issues on the east side, including conservation effects. Iron and manganese in Wells 7 and 8, VOCs in Well 15, and a replacement for Well 3 will all be investigated. The project is expected to start in June 2010 and be done by the end of 2011. The completed project will provide a list of capital improvements to maintain the current level of service on the east side.

Iron and Manganese Filter
A filter plant constructed at Well 29 to reduce iron and manganese levels that exceeded EPA secondary standards has greatly reduced occurrences of colored water. Since the $1.8 million plant went online in 2009, the well has been producing high quality water at a rate of 550 million gallons a year.

Who has a lead service line?
Madison stopped using lead for water service lines by 1929. Houses built after 1929 probably do not have lead service lines. If the pipe coming into your basement before the water meter is copper, the service line is also copper. If you haven’t been notified but think you might have a lead service line, please call the Water Utility at 261-9128.

In 2001, the Utility and Wisconsin DNR entered into a consent agreement requiring replacement of all lead service lines in the city by 2010; however, that deadline was recently extended by a year to coordinate road reconstruction and water main replacement in two areas of the city. At the time, the Water Utility estimated that there were 6000 sections of Utility-owned lead pipe and 5000 sections of owner-side lead pipe (the part of the service line from the curb to the water meter). By the end of 2009, property owners had replaced 4,481 (90%) lead service lines while the Utility had either replaced or abandoned 5,746 (96%) Utility-side lead services.

Lead in your tap water and the environment
Developing fetuses, infants and young children have a higher sensitivity than the general population to lead. Exposure to lead may result in delays in physical or mental development. Children could show deficits in attention span and learning abilities. Adults exposed to high levels of lead over many years could develop kidney problems or high blood pressure. Consult your physician if you suspect high blood levels in your children or other family members. If you are concerned about the lead levels in your tap water, you should have your water tested by a certified lab. Proper sampling for lead is required to obtain a valid result.

EPA/WDNR certified drinking water testing laboratories
Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, Madison, WI 53718
www.slh.wisc.edu/ehd
224-6202 or 800-442-4618

Public Health – Madison and Dane County
210 Martin Luther King Jr. Boulevard, Madison, WI 53703
266-4821

Reduce your exposure to lead
If there is a lead water service line at your home or business or if a lead water service line has been removed, you should take the following precautions while any lead pipe is still in service and for at least three years after the lead pipe is replaced.

- Always flush the plumbing before drawing water for drinking, cooking or preparing infant formula. Let water run from the cold tap for at least 30 seconds after it is noticeably colder than the first-draw water. This flushing process replaces water in the house plumbing and the service line with fresh water from the water main.
- In order to obtain hot water for food or drink preparation, always draw water from the cold-water tap after having flushed the lines as described above—and heat it on the stove or in the microwave.
- Regularly remove faucet aerators and clean them, removing any particles caught in the screen.
- If you have a water filter (plumbed-in, tap-attached, or carafe-type), replace the filters frequently, at least as often as the manufacturer recommends.
- As an extra precaution, consumers in households with small children or with a woman who is pregnant or who may become pregnant may decide to filter water or to purchase purified water for drinking and preparing infant formula.
- Talk to and follow the advice of your physician or your child's pediatrician about lead health hazards and blood lead levels.

Lead education
Educational materials about lead in drinking water are available from Madison Water Utility or Public Health–Madison and Dane County. A brochure is available in both English and Spanish. Please contact the Water Quality section at 266-4654 to request copies or to learn more.

 Outreach
To receive regular updates on water quality and system improvements, subscribe to the Drinking Water Quality Listserv at my.cityofmadison.com
Clean, safe drinking water—a shared responsibility

Things you can do

- Dispose of hazardous chemicals through Clean Sweep. Learn more at www.dane-county-cleansweep.com or call 243-0368.
- Use non-toxic or biodegradable cleaning products. Learn more at www.madsewer.org/documents.htm.
- Promote lawn and garden health through cultural practices rather than the application of fertilizers and pesticides. Visit clean-water.uwex.edu/pubs/home.htm for ideas.
- Use landscaping to keep rainfall on your property and reduce storm water runoff.

Things your utility does

Wellhead protection

The Madison water supply is below our feet. Activities on the land can directly impact our drinking water. The improper disposal of chemicals or a spill at an industrial site or gasoline station can contaminate groundwater.

Wellhead protection helps to protect our drinking water source. The primary goal is to minimize the possibility of contaminants entering public water supply wells through land use management and education.

Cross connection control

Cross connections are direct or indirect connections between drinking water and environments that contain substances (chemicals, microbes, or gases) that could make the water unfit for consumption. Backflow prevention devices, sometimes called vacuum breakers, isolate chemically treated water from the drinking water supply.

The risk from a potential cross connection is no farther away than the common garden hose. Any threaded faucet, including the utility sink or exterior hose bib/sill cock, represents a potential cross connection. Installation of an inexpensive device, a hose connection vacuum breaker, on each threaded faucet helps protect your family and the drinking water supply. The device must have a stamp of approval, i.e. ASSE 1011, from a nationally recognized listing agency.

These devices prevent contaminated water from being drawn back into your home or the water distribution system when a water main leak, hydrant flushing, or other system problem causes a significant water pressure drop. Other locations of potential cross connections, including toilets, boilers, water softeners, irrigation systems, and swimming pools, also require backflow protection. Please call the Water Quality section for more information.

Well abandonment

Private wells in the City of Madison must be inspected and permitted every five years. Unused or improperly abandoned wells can contaminate the aquifer. Locating and properly filling and sealing unused wells with an impermeable substance are important components of wellhead protection.

Effective January 1, the city enacted a program to provide partial reimbursement (50% of the cost, up to $1000) for the permanent abandonment of a private well. In conjunction with this new program, the Water Utility will be more actively seeking out improperly abandoned wells, especially in wellhead protection areas.

Unused Well – What to Look For

IN THE YARD:
- Old hand pump
- Pipes protruding from the ground
- Concrete lid with access

IN THE BASEMENT:
- Small alcove or cubbyhole
- Pipes sticking through the floor or wall
- Old pumps or pumping equipment

Water conservation

In 2008, the Madison Water Utility completed its Water Conservation and Sustainability Plan. The plan sets forth the goal of maintaining the current annual rate of groundwater pumping, while reducing residential per capita water use by 20 percent below current levels by the year 2020.

Madison and Dane County are fortunate to have abundant supplies of water that, if protected and used in a sustainable manner, will last long into the future. With proper management, planning, and conservation now, Madison can help ensure clean and abundant water supplies far into the future.

It may seem counterproductive for a utility that derives its income from selling water to plan for conservation, since more water sold means more income for the utility, on a unit-by-unit basis. But if the utility has to meet rising customer demand every year, it must continually increase its pumping and delivery capacity, and it may eventually have to find additional sources of water if its primary source is overwhelmed. Each increase in capacity and supply means an increased cost to develop and operate, and eventually an increase in customer rates. Therefore, it is actually less expensive for both the utility and its customers to invest in water conservation rather than in increased supply.

Additional benefits of water conservation include improved water quality; a reduced burden on surface water quality since less wastewater is generated; reduced greenhouse gas emissions due to reduced energy spent on water pumping; and increased spring, stream, and river flows, as less of the groundwater that feeds them is withdrawn.

In the Home

- Repair faulty toilets: 32,000,000 gallons of water (enough to serve the entire City of Madison for a day) are wasted in a year's time due to leaky toilets. For information on how to detect a leaky toilet, contact the Water Utility at 266-4641.
- Reduce waste: Fix dripping faucets, use a low-flow showerhead, and do not needlessly run water. A leaky faucet, dripping one drop per second, wastes eight gallons per day, as much as 250 gallons a month.
- Buy water-efficient appliances when it's time to replace the dishwasher, clothes washer, or water softener, and use the energy- and water-efficiency settings.

Outdoors

- Wash your car with a bucket rather than a hose.
- If you must water your lawn, use no more than an inch of water once a week, an amount that satisfies an established lawn's needs and promotes deeper, healthier roots.
- Water your lawn or garden during the cool morning hours to reduce evaporation.
- Set sprinklers to water lawns and gardens only, not the street or sidewalk. A moisture-sensing system is better than a timed automatic sprinkling system.
- Do not over-fertilize. You will increase the lawn's need for water.
- Install rain barrels to capture water from downspouts (www.rainfordane.org or 819-0689).

What's New?

Toilet Rebate Program Expanded

As part of its conservation and sustainability efforts, the Madison Water Utility began a High Efficiency Toilet (HET) rebate program in 2009, because old toilets are the largest water users in the home. That residential program is continuing in 2010 and has been expanded to apartments. Madison customers who replace their high water using toilets with EPA WaterSense-rated HET models can qualify for $100 rebates. Homeowners and landlords may install the toilets themselves, or they can hire a plumber or contractor to do the job. Toilets may be purchased at any supplier as long as they are on the WaterSense list of HETs. For more information and an application form, visit the Water Utility's website at www.madisonwater.org.

Drinking Water Week Open House

To celebrate the value of public drinking water, the Madison Water Utility is joining in the national celebration of Drinking Water Week with an open house on Saturday, May 8. The public is invited to tour the Utility headquarters at 119 E. Olin Avenue from 10 a.m. to 3 p.m. to see how “Only Tap Water Deliver.” There will be tours and displays to highlight how our water system keeps us healthy, fights fires, supports our economy, and provides Madison with the high quality of life we enjoy. Please join us.

Public Participation Process

The Water Utility Board has adopted a formal public participation process that provides multiple opportunities for public input on proposed projects over the life of a project. A Citizen's Advisory Panel (CAP) has been or will be formed for each project. Citizens are invited and encouraged to participate. The process is used on the following projects:

- Arbor Hills Booster Pump Station: In 2009, the Madison Water Utility Board established a project and approved the siting and construction of a booster pump station for the Arbor Hills neighborhood to increase fire protection capacity.
- Zone 4 Water Supply Augmentation: In 2009 the Madison Water Utility Board approved establishing the project and siting and constructing a new well for the southeast corner of Madison.
- Pressure Zone 7 & 8 Water Supply Augmentation: This is the re-named Near West Side Water Supply Project. In March of 2010 the Water Utility Board approved the establishment of a project to investigate water supply capacity on the west side. A series of alternatives will be evaluated to solve the problem.
- Well 8 Iron and Manganese Mitigation: In 2009 the Water Utility Board established this project. Due to its link to the east side water supply, it was decided to merge this project into the East Side Water Supply project that the Utility is starting in 2010. The role of Well 8 will be evaluated as part of the 16-month study.

Full details and project descriptions can be found on our website at www.madisonwater.org. If you wish to get involved with any of these projects or future projects, contact the Utility at 608-266-4651 or water@cityofmadison.com.
We are entrusted by the people of Madison to supply high quality water for consumption and fire protection, at a reasonable cost, while conserving and protecting our ground water resources for present and future generations.

**Information you can use**

**MADISON WATER UTILITY**
119 East Olin Avenue
Madison WI 53713
Administration, 266-4651

Water Utility General Manager: Tom Heikkinen

Water Utility Board: Greg Harrington, President

Water quality and this report: Joseph Grande, Water Quality Manager

Water Quality Hotline: 266-4654

Report an emergency (24-hour line): 266-4665

Bills and to set up service: 266-4641

Water main flushing pre-recorded message: 261-9178

EPA Safe Drinking Water Hotline: 800-426-4791

Public Health of Madison and Dane County: 266-4821

**Language services**

Usted tiene derecho a recibir servicio gratuito de intérprete. Por favor llame al teléfono 266-4651 para mayor información.

Koj muaj tvoj cai tau kev pab txhais lus pub dawb. Thov hu rau 266-4651.

You have the right to free language services. Please call 266-4651 for more information.

**Ways to get involved**

Water Utility Board: Monthly meetings held at 119 E. Olin Avenue. All meetings are at 4:30 pm; see schedule on this page.

EnAct: Create or join an environmental action team with friends, neighbors or co-workers. 204-2888; www.enactwi.org

Sustain Dane: Get involved with the Rain Barrel Program and help work toward improving water quality and developing sustainable communities. 819-0689; www.rainfordane.org

**Water Utility Board 2010 meeting dates**

- January 26
- February 24
- March 23
- April 27
- May 25
- June 29
- July 27
- August 24
- September 29
- October 26
- November 23
- December 21

*Meeting dates are subject to change; check the Legislative Center calendar at www.cityofmadison.com

**On the Web**

Madison Water Utility Website: www.madisonwater.org

Pay your bill online: www.madisonpay.com

View your account information on our new MyWater site: https://mywater.cityofmadison.com

Subscribe to the Drinking Water Quality or Water Main Flushing email listserv at my.cityofmadison.com.