According to a traditional Roman proverb, “Every new beginning comes from some other beginning’s end.” Such is the case this summer for the Ames Water Utility. As we prepare for the start-up of the new Ames Water Treatment Plant, there will also be a bitter-sweet moment as we “close the valves” for the last time at our current treatment plant.

This marks a transition that the Ames community hasn’t seen since the 1920s when construction of the existing plant occurred. Since the original iron removal facility was built, there have been many advancements in treatment. The utility has been on the leading edge of a number of important public health advances such as the implementation of filtration, the use of chlorine for disinfection, and the adoption of fluoridation.

The new treatment facility will utilize modern versions of treatment methods that have served the community so well. For example, the new facility will offer lime softening, just as the current facility does. But the new lime feed system will contain sophisticated controls to optimize the chemical feed rates, providing even more consistent water quality while increasing the softening efficiency. Ultimately, we know the most important factor for our customers is this: the water leaving the new treatment plant will have the same great taste you have come to love!

Later this summer, we will be hosting a ribbon-cutting ceremony and public celebration of what will likely be the home of water treatment in Ames for the next century. We hope to have the entire community join us as we dedicate the new treatment facility. Just as before, our new plant will remain firmly committed to the mission of protecting the public health, environment, and economy of Ames.

John R. Dunn, Director
Water & Pollution Control
<table>
<thead>
<tr>
<th>Substance (units)</th>
<th>Test Year</th>
<th>No. of Samples</th>
<th>Range</th>
<th>Average Value</th>
<th>Highest Allowed Level (MCL or MRDL)</th>
<th>Ideal Level (MCL or MRDL)</th>
<th>Typical Source of Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate (ppm)</td>
<td>2016</td>
<td>38</td>
<td>ND</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.</td>
</tr>
<tr>
<td>Nitrate (ppm)</td>
<td>2016</td>
<td>752</td>
<td>Present in</td>
<td>1% of Monthly Samples</td>
<td>Present in</td>
<td>1% of Monthly Samples</td>
<td>Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.</td>
</tr>
<tr>
<td>Total Coliform (P/A)</td>
<td>2013</td>
<td>4</td>
<td>0.190</td>
<td>- 0.227</td>
<td>0.208</td>
<td>N/A</td>
<td>Molybdenum (ppb)</td>
</tr>
<tr>
<td>Total Chlorine (ppm)</td>
<td>2016</td>
<td>752</td>
<td>0.97 - 2.86</td>
<td>2.38</td>
<td>4</td>
<td>- 4 Erosion of natural deposits; Water additive with stains on teeth.</td>
<td></td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2016</td>
<td>1.124</td>
<td>0.46 - 0.91</td>
<td>0.68</td>
<td>4</td>
<td>- 4 Erosion of natural deposits; Water additive with stains on teeth.</td>
<td></td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>2015</td>
<td>1</td>
<td>29</td>
<td>29</td>
<td>N/A</td>
<td>N/A</td>
<td>Arsenic (ppm)</td>
</tr>
<tr>
<td>Chromium (ppb)</td>
<td>2016</td>
<td>38</td>
<td>ND</td>
<td>0.025</td>
<td>0.042</td>
<td>- 1</td>
<td>N/A Arsenic (ppm)</td>
</tr>
<tr>
<td>Strontium (ppm)</td>
<td>2013</td>
<td>0.2 - 2</td>
<td>0.275</td>
<td>0.16</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A Chlorine (ppm)</td>
</tr>
<tr>
<td>Molybdenum (ppm)</td>
<td>2013</td>
<td>1.70 - 16.5</td>
<td>5.63</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A Chlorine (ppm)</td>
</tr>
<tr>
<td>Strontium (ppm)</td>
<td>2013</td>
<td>0.190 - 0.227</td>
<td>0.208</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A Chlorine (ppm)</td>
</tr>
<tr>
<td>Lead (ppm)</td>
<td>2016</td>
<td>88</td>
<td>4.5</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>N/A Chromium (ppb)</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>2016</td>
<td>88</td>
<td>ND</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>N/A Chromium (ppb)</td>
</tr>
</tbody>
</table>

**Substances Tested and Regulated by the Consumer Tap**

- **Corrosion of household plumbing systems; Erosion of natural deposits.**
- **Leaching from wood preservatives.**

**Substances Tested and Regulated by the AME Water Treatment Plant**

- **Corrosion of household plumbing systems; Erosion of natural deposits.**
- **Leaching from wood preservatives.**

**Special Health Concerns**

- **Fluoride:** Fluoride is added to enhance settling.
- **Chlorine:** Chlorine is added to control microorganisms.
- **Ozone:** Ozone is added to control microorganisms.
- **Nitrates:** Nitrates are added to control microorganisms.
- **Phosphates:** Phosphates are added to control microorganisms.
- **Total Coliforms:** Total coliforms are added to control microorganisms.
- **Total Chlorine:** Total chlorine is added to control microorganisms.
- **Fluoride:** Fluoride is added to control microorganisms.
- **Sodium:** Sodium is added to control microorganisms.
- **Chromium:** Chromium is added to control microorganisms.
- **Strontium:** Strontium is added to control microorganisms.
- **Molybdenum:** Molybdenum is added to control microorganisms.
- **Fluoride:** Fluoride is added to control microorganisms.
- **Sodium:** Sodium is added to control microorganisms.
- **Chromium:** Chromium is added to control microorganisms.
- **Strontium:** Strontium is added to control microorganisms.
- **Molybdenum:** Molybdenum is added to control microorganisms.

**Regulated Substances**

- **Fluoride:** Fluoride is added to control microorganisms.
- **Sodium:** Sodium is added to control microorganisms.
- **Chromium:** Chromium is added to control microorganisms.
- **Strontium:** Strontium is added to control microorganisms.
- **Molybdenum:** Molybdenum is added to control microorganisms.

**Unregulated Contaminants**

- **Fluoride:** Fluoride is added to control microorganisms.
- **Sodium:** Sodium is added to control microorganisms.
- **Chromium:** Chromium is added to control microorganisms.
- **Strontium:** Strontium is added to control microorganisms.
- **Molybdenum:** Molybdenum is added to control microorganisms.

** Typically Source of Substance**

- **Fluoride:** Fluoride is added to control microorganisms.
- **Sodium:** Sodium is added to control microorganisms.
- **Chromium:** Chromium is added to control microorganisms.
- **Strontium:** Strontium is added to control microorganisms.
- **Molybdenum:** Molybdenum is added to control microorganisms.