**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.

**Non-Applicable (N/A):** EPA has not set MCLs or MCLGs for these substances.

**Nephelometric Turbidity Unit (NTU):** A measurement of the relative clarity of drinking water.

**Picocuries per liter (pCi/L):** A measure of the radioactivity of a substance.

One ppt is equivalent to one gallon in one trillion gallons. A ppb is one thousand times smaller than a ppm.

**Parts per trillion (ppt):** Parts per trillion are a measurement of concentration of substances dissolved in water. One ppb is equivalent to one gallon in one billion gallons. For more information, please visit: [http://www.epa.gov/groundwater/upload/ntu-median.pptx](http://www.epa.gov/groundwater/upload/ntu-median.pptx)

**Parts per billion (ppb):** Parts per billion are a measurement of concentration of substances dissolved in water. One ppb is equivalent to one gallon in one billion gallons. For more information, please visit: [http://www.epa.gov/groundwater/upload/ntu-median.pptx](http://www.epa.gov/groundwater/upload/ntu-median.pptx)

**Parts per million (ppm):** Parts per million are a measurement of concentration of substances dissolved in water. One ppm is equivalent to one gallon in one million gallons. For more information, please visit: [http://www.epa.gov/groundwater/upload/ntu-median.pptx](http://www.epa.gov/groundwater/upload/ntu-median.pptx)

**Definitions:**

- **Maximum Contaminant Level (MCL):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLs allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Treatment Technique (TT):** A required process to reduce the level of a contaminant in drinking water.
- **Action level:** The highest level of a contaminant allowed in drinking water. There is not enough evidence to require treatment to control the contaminant. Action levels are not to be compared with health advisories.
- **Detection Limit:** The lowest analytical result that can be reported for a substance.
- **Range:** The lowest analytical result reported to the highest analytical result reported. All other analytical results fall between those two numbers.

## Distribution System Detections 2011:

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Units</th>
<th>MCLG</th>
<th>Results</th>
<th>Violation</th>
<th>Sources in Drinking water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform Bacteria</td>
<td>No more than 5% of monthly samples may be total coliform-positive</td>
<td>0.001</td>
<td>0.011% - 0.06%</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Chlorehane (Distribution System)</td>
<td>ppm</td>
<td>Minimum Average 0.01 mg/L Maximum Average (AWM = Annual Weighted Average)</td>
<td>N/A</td>
<td>1.2 annual min</td>
<td>No</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>TT = 1.0 NTU MAX</td>
<td>N/A</td>
<td>0.18</td>
<td>No</td>
</tr>
<tr>
<td>(TTHMs) Total Trihalomethanes</td>
<td>ppb</td>
<td>10 Running Annual Average Range (Low to high)</td>
<td>N/A</td>
<td>46.2</td>
<td>N/A</td>
</tr>
<tr>
<td>Halogenic Acids (HAA)</td>
<td>ppm</td>
<td>60 Running Annual Average Range (Low to high)</td>
<td>N/A</td>
<td>16.6</td>
<td>No</td>
</tr>
</tbody>
</table>

## Detected Unregulated Contaminant (UCMR2):

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Units</th>
<th>MCLG</th>
<th>Range (Low to high)</th>
<th>Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-nitroso dimethylamine (NDMA)</td>
<td>ppb</td>
<td>0.002</td>
<td>0.001 - 0.033</td>
<td>Byproduct of drinking water disinfection</td>
</tr>
</tbody>
</table>

## Lead and Copper Study 2010:

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Units</th>
<th>MCLG</th>
<th>Range (Low to high)</th>
<th>Sources in Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>Action level = 15 ppb</td>
<td>1.3 mg/L</td>
<td>5.0</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>Action level = 1.3 mg/L</td>
<td>0.3 mg/L</td>
<td>0.24</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits</td>
</tr>
</tbody>
</table>

## Notes:

- **Main water system:** All water systems must follow the requirements set forth by the EPA and the state of Arizona.
- **Action levels:** Action levels are not to be compared with health advisories. Action levels allow for a margin of safety.
- **Detection Limit:** The lowest analytical result that can be reported for a substance.
- **Range:** The lowest analytical result reported to the highest analytical result reported. All other analytical results fall between those two numbers.

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### Minimum Detectable Level (MDL)

**Minimum Detectable Level (MDL):** The concentration of a substance below which it cannot be detected with specified precision and accuracy.

**Detection Limit:** The lowest analytical result that can be reported for a substance.

**Range (Low to high):** The lowest analytical result reported to the highest analytical result reported. All other analytical results fall between those two numbers.
Drinking water, including bottled water, may reasonably be expected to contain at least 80 contaminants. Of these, some can be naturally-occurring or result from contamination of the source water and some are the result of human activity. Sources of contamination include:

- agriculture, urban runoff, and mining activities
- industrial production and mining facilities
- production and gas production
- production and mining activities
- urban stormwater runoff
- septic systems
- production facilities for the monitoring compliance period of 2009 through 2011.

Compliance of concern

Unregulated Contaminant Monitoring Report

EPA published the final rule for the Second Unregulated Monitoring Regulation Cycle (UMRC) in 2006. The Surface Water Treatment Rule (SWTR) required a total of 25 contaminants to be analyzed, with the assigned sampling period for Chandler encompassing the fourth quarter of 2009 through the third quarter of 2010. Twenty-two of the 25 contaminants were analyzed. The only compound detected was lead in the low parts per billion range 4-56 complexes.

Cryptosporidium and Giardia

The Chandler City Water Laboratory sampled its water throughout the year for Cryptosporidium and Giardia. As of July 31, 2011, on the source water Chandler receives from the Consolidated Canal. The filtration system in the City of Chandler’s Surface Water Treatment Plant exceeds EPA requirements for removal of Cryptosporidium and Giardia.

Nitrate

The highest nitrate level measured in Chandler’s water during 2011 was 6.7 parts per million (ppm). The average was 3.0 ppm, which is well below the EPA limit of 10 ppm. Nitrate in drinking water levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity.

Pharmaceuticals and personal care products (PPCPs)

Recent media reports have highlighted the presence of pharmaceuticals in municipal water supplies. A limited study was undertaken for a small group of the PPCPs. Although the study was limited it did detect trace amounts of estrogen-related hormones at part per trillion concentrations (one part per trillion is equal to one drop of water in twenty Olympic-sized swimming pools). EPA has no current or proposed regulations for these substances. Future research indicates that certain substances should be removed from the drinking water distribution system. Chandler Public Utilities will work to find the best method of removal.

Arsenic

Chandler has constructed arsenic treatment systems in order to meet the arsenic drinking water standard set for arsenic. This well was only used during high water demand periods. In 2010, 116,322,000 gallons of water were consumed by residents in the impacted area. The notice provided warning of the problem when it was discovered and steps were taken to increase monitoring and to permanently resolve the issue. Combined hardship assistance is available for the residents who were impacted by the arsenic concentrations. The notice provided warning of the problem when it was discovered and steps were taken to increase monitoring and to permanently resolve the issue. Combined hardship assistance is available for the residents who were impacted by the arsenic concentrations.

Protection of Chandler’s Water Supply

Chandler works with SRP to minimize algae in the canal system and to provide treatment at the Consolidated Canal. This allows the treatment plant to have more precise control over taste and odor, and to better utilize resources.

Who do I contact with questions about Chandler's Drinking Water?

If you have any questions about your tap water or the information in this report, please call 480-782-3660 during normal business hours (8:00 a.m. to 5:00 p.m., Monday through Friday). You can also visit our website at http://www.chandleraz.gov.

Violation and Misleading Statement

Arsonic: Some people who drink water that contains arsenic in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of developing some types of cancer.

You and your Water Supply

Stormwater runoff from polluted lands finds its way into the storm drain system, or directly to a stream, lake, river, wetland, reservoir, or canal. Stormwater pollution can contaminate the water supply and can be a public health concern if it contains pathogens, sediments, and other pollutants. Stormwater pollution may also create problems for wildlife, fisheries, and other aquatic species. Stormwater pollution can also contaminate the water supply and can be a public health concern if it contains pathogens, sediments, and other pollutants. Stormwater pollution may also create problems for wildlife, fisheries, and other aquatic species. Stormwater pollution can also contaminate the water supply and can be a public health concern if it contains pathogens, sediments, and other pollutants. Stormwater pollution may also create problems for wildlife, fisheries, and other aquatic species.