Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which 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, which 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 about drinking water from their health care providers. EPA/ACEC 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).

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. We 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 Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 309-935-6632. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swappfact-sheets.pl.

Based on information obtained in a Well Site Survey published in 1993 by the Illinois EPA, several potential secondary sources are located within 1,000 feet of the wells. Based on information provided by Annawan's water supply officials, the following facilities, also indicated as potential sources of contamination in the site data table and indicated on the map, have changed status: Robinson's Farm Service is now out of business and all buildings have been removed and the Tomahawk Gasoline Company is out of business. The Illinois EPA has determined that the Annawan Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and available hydrogeologic data on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Vater Rule, the Illinois EPA has determined that the Annawan Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper siting conditions; a hydrogeologic barrier exists which should prevent pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring ata did not indicate a history of disease outbreak and the sanitary survey of the water supply did not indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in this determination. Hence, well hydraulics were not evaluated for its system ground water supply.
# 2019 Regulated Contaminants Detected

## Definitions:
- **Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
- **Action level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## Lead and Copper

<table>
<thead>
<tr>
<th>Lead and Copper</th>
<th>Date Sampled</th>
<th>ALG</th>
<th>Action Level (AL)</th>
<th>50th Percentile</th>
<th>ppm Above AL</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>08/14/2014</td>
<td>1.3</td>
<td>1.3</td>
<td>0.676</td>
<td>0</td>
<td>ppm</td>
<td>Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.</td>
</tr>
<tr>
<td>Lead</td>
<td>08/14/2014</td>
<td>0</td>
<td>15</td>
<td>0.052</td>
<td>0</td>
<td>ppm</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits.</td>
</tr>
</tbody>
</table>

## Water Quality Test Results

### Definitions:
- Avg:
- **Level 1 Assessment:**
- **Level 2 Assessment:**

### Maximum Contaminant Level of NCL:
- **Maximum Contaminant Level Goal of MCLG:**
- **Maximum residual disinfectant level or MRDL:**
- **Maximum residual disinfectant level goal or MRDLG:**
- **mg/L:**
- **ppb:**
- **ppm:**

### Treatment Technique or TT:

The following tables contain scientific terms and measures, some of which may require explanation.

Regulatory compliance with some NCLs are based on running annual average of monthly samples.

A Level 1 assessment is a study of the water system to identify potential problems and determine if possible why total coliform bacteria have been found in our water system.

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine if possible why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

The highest level of a contaminant that is allowed in drinking water, MCLs are set as close as possible to levels that do not pose a risk to health. MCLGs allow for a margin of safety.

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.

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRLs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

- milligrams per year is measure of radiation absorbed by the body
- micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
- milligrams per liter or parts per million - or one ounce in 7,360 gallons of water.

A required process intended to reduce the level of a contaminant in drinking water.

## Regulated Contaminants

### Disinfectants and Disinfection By-Products

<table>
<thead>
<tr>
<th>Disinfectants and Disinfection By-Products</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>2019</td>
<td>2.8</td>
<td>2.4 - 2.8</td>
<td>MCLG = 4</td>
<td>MCL = 4</td>
<td>ppm</td>
<td>ppm</td>
<td>Water additive used to control microbes.</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5)</td>
<td>2019</td>
<td>7</td>
<td>6.5 - 6.5</td>
<td>No goal for the total</td>
<td>60</td>
<td>ppb</td>
<td>ppm</td>
<td>By-product of drinking water disinfection.</td>
</tr>
<tr>
<td>Total Trihalomethanes (THM)</td>
<td>2019</td>
<td>8</td>
<td>7.5 - 8.5</td>
<td>No goal for the total</td>
<td>80</td>
<td>ppb</td>
<td>ppm</td>
<td>By-product of drinking water disinfection.</td>
</tr>
<tr>
<td>Inorganic Contaminants</td>
<td>Collection Date</td>
<td>Highest Level Detected</td>
<td>Range of Levels Detected</td>
<td>MCLG</td>
<td>MCL</td>
<td>Units</td>
<td>Violation</td>
<td>Likely Source of Contamination</td>
</tr>
<tr>
<td>Barium</td>
<td>04/03/2018</td>
<td>0.169</td>
<td>0.149 - 0.169</td>
<td>2</td>
<td>2</td>
<td>ppm</td>
<td>ppm</td>
<td>Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.</td>
</tr>
<tr>
<td>Fluoride</td>
<td>04/03/2018</td>
<td>0.358</td>
<td>0.307 - 0.358</td>
<td>4</td>
<td>4.0</td>
<td>ppm</td>
<td>ppm</td>
<td>Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.</td>
</tr>
<tr>
<td>Iron</td>
<td>04/03/2018</td>
<td>0.346</td>
<td>0.316 - 0.346</td>
<td>1.0</td>
<td>1.0</td>
<td>ppm</td>
<td>ppm</td>
<td>This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.</td>
</tr>
<tr>
<td>Manganese</td>
<td>04/03/2018</td>
<td>4.1</td>
<td>3.1 - 4.1</td>
<td>150</td>
<td>150</td>
<td>ppb</td>
<td>ppm</td>
<td>This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.</td>
</tr>
<tr>
<td>Methyl (measured as Nitrogen)</td>
<td>2019</td>
<td>0.119</td>
<td>0.105 - 0.119</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
<td>ppm</td>
<td>Runoff from fertilizer use; leaching from septic tanks; sewage; Erosion of natural deposits.</td>
</tr>
<tr>
<td>Sodium</td>
<td>04/03/2018</td>
<td>50.5</td>
<td>50.3 - 50.5</td>
<td>5</td>
<td>5</td>
<td>pci/l</td>
<td>ppm</td>
<td>Erosion from naturally occurring deposits. Used in water softening regeneration.</td>
</tr>
<tr>
<td>Radioactive Contaminants</td>
<td>Collection Date</td>
<td>Highest Level Detected</td>
<td>Range of Levels Detected</td>
<td>MCLG</td>
<td>MCL</td>
<td>Units</td>
<td>Violation</td>
<td>Likely Source of Contamination</td>
</tr>
<tr>
<td>Combined Radium 226/228</td>
<td>03/14/2014</td>
<td>1.7</td>
<td>1.7 - 1.7</td>
<td>0</td>
<td>5</td>
<td>pci/l</td>
<td>ppm</td>
<td>Erosion of natural deposits.</td>
</tr>
<tr>
<td>Gross alpha excluding radon and uranium</td>
<td>03/14/2014</td>
<td>6.2</td>
<td>6.2 - 6.2</td>
<td>0</td>
<td>15</td>
<td>pci/l</td>
<td>ppm</td>
<td>Erosion of natural deposits.</td>
</tr>
</tbody>
</table>