Why This Report

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Gering water system to provide safe drinking water.

Para Clientes Que Hablan Español: Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.

Our goal is and always has been to provide you a safe and dependable supply of drinking water. For more information regarding this report, contact Pat Heath, Director of Public Works at 436-6800.

If you would like to observe or participate in the decision-making process that affects your drinking water quality, please attend the regularly scheduled meetings of the Gering City Council, on the 2nd and 4th Monday of each month at 6:00 PM, Gering City Hall, 1025 P Street.

Sources of Drinking Water

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

Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses and bacteria, which may come from wastewater treatment plants, septic systems, agricultural livestock operations and wildlife.

B. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off and residential uses.

D. Organic chemicals, 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 run-off and septic systems.

E. Radioactive contaminants, which can be naturally occurring or the result of oil production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency and the Nebraska Department of Health and Human Services prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Notice to Immuno-Compromised People

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. Environmental Protection Agency and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline, (800) 426-4791.
**How to Read This Report:**

The EPA and State Drinking Water programs 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. The state requires monitoring of certain contaminants less than one per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be older than one year.

**Maximum Contaminant Level (MCL) -** Highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLG's as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG) -** Level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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.

**TMDL** - Total Maximum Daily Load - A loading rate that ensures that water quality standards can be met by receiving waters.

**Section 1414** - A section of the Safe Drinking Water Act that provides for the regulation of contaminants from point sources.

**Radioactive Contaminants** - Contaminants that are radioactive, such as radium and radon.

**Radionuclides** - Radioactive elements that are naturally occurring in the Earth's crust.

**Carcinogenic** - Causing or promoting cancer.

**Toxics** - Chemicals that are toxic to humans.

**Contaminants** - Substances that are harmful to health or the environment.

**EPA** - Environmental Protection Agency.

**State** - State agency responsible for regulating drinking water in the state.

**County** - Administrative and geographic unit within a state.

**Municipal** - City or town responsible for providing drinking water.

**Private** - Individual or small group responsible for providing drinking water.

**Public** - A group of people who get their water from a public water system.

**Worker** - An individual who is exposed to a contaminant in the workplace.

**Residence** - A place where a person lives and consumes water.

**Property** - A piece of land and any structures on it.

**Drinking Water Analysis (Samples Collected In 2016 Unless Noted):**

### Regulated Samples Collected From Source Water

<table>
<thead>
<tr>
<th>Regulated Contaminant</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>Unit of Measurement</th>
<th>MCLG</th>
<th>MCL</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>5/10/2016</td>
<td>0.14</td>
<td>μg/L</td>
<td>50</td>
<td>5</td>
<td>No</td>
<td>Erosion of natural deposits, run-off from erupts and run-off from agricultural production wastes</td>
</tr>
<tr>
<td>Barium</td>
<td>4/7/2014</td>
<td>0.076</td>
<td>μg/L</td>
<td>0.05</td>
<td>0.02</td>
<td>No</td>
<td>Discharge of industrial waste, discharge from industrial facilities and erosion of natural deposits</td>
</tr>
<tr>
<td>Chromium</td>
<td>4/7/2014</td>
<td>12.7</td>
<td>μg/L</td>
<td>50</td>
<td>5</td>
<td>No</td>
<td>Discharge of steel and pulp mills and erosion of natural deposits</td>
</tr>
<tr>
<td>Fluoride</td>
<td>4/7/2014</td>
<td>0.84</td>
<td>μg/L</td>
<td>0.8</td>
<td>0.8</td>
<td>No</td>
<td>Water additive which promotes strong tooth, erosion of natural deposits, and fertilize discharge</td>
</tr>
<tr>
<td>Nitrate-Nitrite</td>
<td>4/5/2016</td>
<td>2.76</td>
<td>ppm</td>
<td>10</td>
<td>10</td>
<td>No</td>
<td>Run-off from fertilizer use, leaching from septic tanks, sewage and erosion of natural deposits</td>
</tr>
<tr>
<td>Selenium</td>
<td>4/7/2014</td>
<td>0.11</td>
<td>μg/L</td>
<td>10</td>
<td>10</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Uranium M &amp; E 8/5/2016</td>
<td>263.3</td>
<td>22.9 - 26.3</td>
<td>μg/L</td>
<td>30</td>
<td>30</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
</tbody>
</table>

### Radiological Contaminants

<table>
<thead>
<tr>
<th>Required Levels for Radioactivity</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bq/L</strong></td>
<td>Pico Curies per liter</td>
</tr>
</tbody>
</table>

### Regulated Samples Collected From Water Distribution System

<table>
<thead>
<tr>
<th>Regulated Contaminant</th>
<th>Monitoring Period</th>
<th>Number of Positive Samples in 2016</th>
<th>Unit of Measurement</th>
<th>MCLG</th>
<th>MCL</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliforms and E. Coli</td>
<td>1/1/2016 - 12/31/2016</td>
<td>0</td>
<td>Present/Absent</td>
<td>0</td>
<td>0</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

### Unregulated Samples Collected From Source Water

<table>
<thead>
<tr>
<th>Unregulated Water Quality Data</th>
<th>Collection Date</th>
<th>Highest Value</th>
<th>Range</th>
<th>Unit</th>
<th>Secondary MCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>7/7/2014</td>
<td>0.0047</td>
<td>0.0047</td>
<td>μg/L</td>
<td>0.1</td>
</tr>
<tr>
<td>Sulfate</td>
<td>7/7/2014</td>
<td>229</td>
<td>229</td>
<td>μg/L</td>
<td>250</td>
</tr>
</tbody>
</table>

### During the 2016 Calendar Year, the City of Gering had the below noted violation(s) of the drinking water regulations.

<table>
<thead>
<tr>
<th>Type</th>
<th>Category</th>
<th>Analyte</th>
<th>Compliance Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Violations Occurred in the Calendar year of 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Gering’s Water Source

The City of Gering serves approximately 8,500 customers an average of 2.5 million gallons of water per day. Our water source is groundwater, which is pumped to the water system from five wells located in Gering and four wells west of Scottsbluff. The Midtown and Gueck Well Fields pump water from the North Platte River alluvium, (alluvium is a sand and gravel formation under the North Platte River Valley).

Treatment Process

The City of Gering does not treat our drinking water supply. Thanks to the natural filtration of the aquifer, nature has already done the work enhancing the quality of Gering’s water. However, chlorine and fluoride are added to the water supply. Chlorine kills a variety of microbial waterborne pathogens, like e-coli and those that can cause typhoid fever, dysentery, and cholera. Fluoride is a natural occurring element in groundwater. Gering’s natural fluoride level is 0.33 ppm. The optimum level for fluoride in drinking water to promote strong teeth is 1.0 ppm. The City of Gering adjusts the fluoride level to between 0.80 ppm and 1.0 ppm. The fluoride ion added to the water is the same fluoride ion that occurs naturally in groundwater.

Water Use Information

During 2016, the City of Gering pumped 897 million gallons of water. With a population of 8,500 this averages to 289 gallons per person each day. The national average is 150 gallons per person each day. The chart below shows water pumped each month during 2016.

![Water Pumped 2016 Chart](chart)

Delivery of this Report

This report will not be mailed to each water system customer. You may obtain a copy of this report at the City of Gering offices located at 1025 P Street, Gering, NE 69341. You may call (308) 436-6800 and request a copy be mailed to you. You may also view this report on the City of Gering website at [www.gering.org/2016WaterQualityReport](http://www.gering.org/2016WaterQualityReport).

Lead in Drinking Water

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. All community water systems are 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 Safe Drinking Water Hotline (800)-426-4791, at [http://www.epa.gov/safewater/lead or at the DHHS/DPH/Office of Drinking Water (402)-471-2541].

The City of Gering is required to test for the following contaminants:

- Coliform Bacteria, Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Thallium, Alachlor, Atrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl)adipate, Dibromochloropropane, Dinozof, Di(2-ethylhexyl)phthalate, Diquat, 2,4-D, Endothall, Endrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxyethyl (Vyleste), Pentachlorophenol, Picloram, PCB’S (Polychlorinated biphenyls), Simazine, Toxaphene, Dioxin, Silvex, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Cis-1,2-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Styrene, Tetrachloroethylene, Toluene, Xylenes (total), Gross Alpha (min uranium & radium 226), Uranium 226 plus Radium 228, Sulfate, Chloriform, Bromodichloromethane, Chlorodromethane, Bromoform, Chlorobenzene, m-Dichlorobenzene, 1,1-Dichloroethane, 1,1,2,2-Tetrachloroethane, 1,2-Dichloropropane, Chloromethane, Bromomethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, Chloroethene, 2,2-Dichloropropane, p-Chlorotoluene, Bromobenzene, 1,3-Dichloropropane, Aldrin, Butachlor, Carbaryl, Dicamba, Dieldrin, 3-Hydroxy-carbofuran, Methanol, Metolachlor, Metribuzin, Propachlor, Uranium and tests for Disinfection By Products.