This report will highlight:

- Sources of potential contamination
- Hiram water source, treatment and monitoring
- Table of detected contaminants
- Consumer participation in drinking water issues.

**Sources of drinking water contamination.**

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.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline (1-800-426-4791).

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 infection. 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 (1-800-426-4791).
Hiram water source, treatment and monitoring.

The Water Treatment Plant and adjacent well field are located on a seventeen-acre site near the east corporation limit on Wakefield Road. Three wells, one hundred fifty-five feet deep, pump from water bearing bedrock formations of the Sharon Sandstone aquifer. Water pumped from these wells is processed by filtration and softening to reduce mineral concentrations of iron, manganese, calcium and magnesium. Small amounts of additional chemicals are added to protect consumers from harmful bacteria and to buffer against the natural corrosive tendency of water. All treatment plant processes are approved by the Ohio EPA, Division of Drinking and Ground Water and are carefully monitored by operating personnel.

The Hiram water system delivered 23.81 million gallons of treated water to consumers in 2018. Approximately fifty percent of this volume was softened. Softening produces a water blend that reduces mineral deposits on fixtures and enhances the cleaning performance of soaps and detergents. The softening process also increases the sodium content of our water. Persons on a sodium-restricted diet should note the average sodium value reported in the table below.

Water quality within the system will vary somewhat from one point in the Village to another at any given time. This is due primarily to differences in the rate of consumption and the carrying capacity and condition of water mains serving different areas of the Village. Also, slight variations in daily chemical additions are common.

The Ohio EPA assigns a sampling schedule to each water treatment facility. Potential contaminants and treatment system processes are monitored in strict accordance with this schedule. Water quality parameters requiring daily and weekly testing are analyzed in our own certified laboratory. Annual or triennial sampling is required for some contaminants that are known to change very little in concentration. A monthly report containing the results of laboratory analysis and operational data is submitted to the Ohio EPA.

Ohio EPA recently completed a study of the Village of Hiram’s source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water-rich zone) that supplies water to the Village of Hiram has a moderate susceptibility to contamination. This determination is based on the following:

- No evidence to suggest that ground water has been impacted by any significant levels of chemical contaminants from human activities; and
- Presence of significant potential contamination sources in the protection area.

This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is moderate. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling 330-569-7860.

Definitions of terms and abbreviations used in tables:

- **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.
- **Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Parts per Million (ppm) or Milligrams per Liter (mg/L):** Units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- **Parts per Billion (ppb) or Micrograms per Liter (µg/L):** Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- **N/A:** Not applicable
### Table of detected contaminants.

<table>
<thead>
<tr>
<th>Contaminants (Units)</th>
<th>MCLG</th>
<th>MCL</th>
<th>Hiram Water Level Found</th>
<th>Range of Detection</th>
<th>Violation</th>
<th>Sample Year</th>
<th>Typical Source of Contaminants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine (ppm) Total</td>
<td>4</td>
<td>4</td>
<td>.87</td>
<td>.74 - 1.05</td>
<td>No</td>
<td>2018</td>
<td>Water additive used to control microbes.</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.08</td>
<td>.270 - 1.5</td>
<td>No</td>
<td>2018</td>
<td>Corrosion of household plumbing systems. Action Level is 1.350 mg/L. Out of 10 sampling sites we had 1 above 90th % 1.5.</td>
</tr>
<tr>
<td>Lead (ppb)</td>
<td>0</td>
<td>15.5</td>
<td>3.38</td>
<td>0 - 4.1</td>
<td>No</td>
<td>2018</td>
<td>Corrosion of household plumbing systems. Action Level is 15.5 ug/L. Out of 10 sampling sites we had 0 above 90th %.</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>4</td>
<td>4</td>
<td>.140</td>
<td>0 to .140</td>
<td>No</td>
<td>2017</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>N/A</td>
<td>N/A</td>
<td>87.2</td>
<td>73.1 - 87.2</td>
<td>No</td>
<td>2018</td>
<td>Residual from water softening process</td>
</tr>
</tbody>
</table>

#### HAAS

<table>
<thead>
<tr>
<th>Halocetic Acids U/g/L</th>
<th>60</th>
<th>&lt;6.0</th>
<th>No</th>
<th>2018</th>
<th>By-product of drinking water chlorination</th>
</tr>
</thead>
<tbody>
<tr>
<td>THM's (Total Trihalomethanes) U/g/L</td>
<td>60</td>
<td>6.2</td>
<td>0 to 6.2</td>
<td>No</td>
<td>2018</td>
</tr>
</tbody>
</table>

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**Lead Educational Information**

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 the lines and home plumbing. The Village of Hiram is 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 the 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 Safe Drinking Water Hotline at 800-426-4791 or at http://www.epa.gov/safewater/lead.

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**Consumer participation in drinking water issues.**

The Hiram Village Utility Superintendent manages Water Department operations and makes recommendations to the Village Administrator, Mayor and Council on utility matters. Village Council holds a public meeting at the Village Hall the second Tuesday of each month at 7:00 PM. You are welcome to participate in these meetings.

Additional information on water quality and the Hiram Water System is available by contacting the Water Department staff between 7AM and 3PM at (330) 569-7860 or mail your inquiry to the address below. Please address your inquiry to Dan Vair, Hiram Utilities.
Water system data.

A portion of Hiram’s current water distribution system was constructed in 1896. Still in use but weakened with age, this pipe has suffered serious breaks resulting in substantial water loss and service interruptions. Replacing this infrastructure and interconnecting dead ends of the distribution system are long-range goals that, when completed, will ensure water of consistent volume and quality for consumer use and fire protection.

Water quality monitoring is but one of the duties performed by operating personnel each day. A thorough record keeping system tracks daily treatment operations and aids personnel in identifying and resolving electrical, mechanical and hydraulic problems within the treatment process and distribution system. Time is allotted throughout the year for additional tasks, i.e., facility maintenance, control and sensor calibration, equipment lubrication/adjustment/repair and capital improvements. Distribution system maintenance includes: system flushing, fire hydrant repair, updating and re-mapping service areas, water meter reading and replacement, leak repair of water mains, service lines and valves. Our personnel are dedicated to providing this fine Community with quality service.

Hiram Water Department
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