Henderson Water Utility
North Plant
2001 Drinking Water Quality Report
Reporting data collected in 2000

July, 2001

TYPE AND LOCATION OF WATER SOURCE

The employees of Henderson Water Utility are very excited to provide you with this year’s Annual Water Quality Report. We want to keep you informed about the quality of our water and services we deliver to you every day of the year. Our goal is, and always will be, to provide you a safe and dependable supply of drinking water. We want you to understand the efforts we make continually to improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water remains at the highest possible level.

Our source for surface water comes from the Ohio River at approximately river mile marker 803, or the corner of 5th and Water streets in Henderson. Surface water is classified as rivers, lakes, streams, ponds, and reservoirs. As water travels over the surface of the land it dissolves naturally occurring minerals. In some cases, radioactive material can be picked up from the presence of animal or human activity. Contaminants that may be present in source water include: microbial, inorganic, pesticides and herbicides, organic, and radioactive materials. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of contaminants in water provided by public water systems.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (800-426-4791).

The area around your water source is mostly residential but also contains some industrial activity. A source water assessment with a summary of the system’s susceptibility to potential sources of contamination is not due to be completed until May 2003, however, a preliminary source water assessment is available. A copy of the plan is available for inspection at your County Judges office or Area Development District office.

Henderson Water Utility routinely monitors for contaminants in your drinking water according to Federal and State laws. The table enclosed within shows the results of our monitoring for the period of January 1 to December 31, 2000.

Customers’ Right to Know Information

If you have any questions about this report or concerning your water utility, please contact Lucrecia Fry, Water Quality Technician at (270) 826-2421. We want our valued customers to be informed about their water utility. If you want to learn more, please contact us at the telephone number above or join us at any of our regularly scheduled council meetings. They are normally held on the fourth Thursday of each month at 5:00 p.m. at the Bobby Gish Administration Building.

The current Water Board Commissioners are: Jeanne Marie Gadient, Dr. John Dunaway, Dr. William Marshall, Laffoon (Chip) Williams and Rodger Bird.
**DETECTS**

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply. Nitrate in drinking water at levels above 10ppm is a health risk for infants of 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 because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person’s total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

**MCL’s**

MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

We at Henderson Water Utility work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children’s future.

**FLUORIDE**

Fluoride has been added to the drinking water for dental health purposes. The water system monitors the fluoride levels on a daily basis and sends out samples twice a month to an independent state certified lab for analysis.

**DEFINITIONS & ABBREVIATIONS**

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.

Unregulated Contaminants - contaminants that require monitoring, but no MCL has been set at this time.

N/A - not applicable

Below Detection Levels (BDL) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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.
**VULNERABILITY**

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/CDC 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).

**VIOLATIONS**

Henderson Water Utility would like to advise you that a violation occurred during the year of 2000. The violation was for failure to submit the CCR to the Kentucky Division of Water by the July 1 deadline. However, Henderson Water Utility did send out its CCR to all of Henderson Water Utility customers in the appropriate time frame.

### Particulate Test Results

<table>
<thead>
<tr>
<th>Turbidity (NTU)</th>
<th>Allowable Levels</th>
<th>Highest Single Measurement</th>
<th>Lowest Monthly %</th>
<th>Violation Y/N</th>
<th>Likely Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.5 NTU 95% of samples each month.</td>
<td></td>
<td>0.67</td>
<td>98%</td>
<td>N</td>
<td>Soil runoff</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contaminant [code] (units)</th>
<th>MCL</th>
<th>MCLG</th>
<th>Highest Detection</th>
<th>Range</th>
<th>Date of Sample</th>
<th>Violation</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium (ppm) [1010]</td>
<td>2</td>
<td>2</td>
<td>0.05</td>
<td>0.05 - 0.05</td>
<td>7-20-00</td>
<td>N</td>
<td>Discharge of drilling waste, discharge from metal refineries; erosion of natural deposits</td>
</tr>
<tr>
<td>Copper (ppm) [1022]</td>
<td>AL=1.3</td>
<td>1.3</td>
<td>0.0667 (90th percentile)</td>
<td>(0 sites exceeded the AL)</td>
<td>7-20-00</td>
<td>N</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives</td>
</tr>
<tr>
<td>Fluoride (ppm) [1025]</td>
<td>4</td>
<td>4</td>
<td>1.25</td>
<td>0.64 - 1.25</td>
<td>7-20-00</td>
<td>N</td>
<td>Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Lead (ppm) [1030]</td>
<td>AL=15</td>
<td>0</td>
<td>5.8 (90th percentile)</td>
<td>(1 site exceeded the AL)</td>
<td>7-20-00</td>
<td>N</td>
<td>Corrosion of household plumbing systems, erosion of natural deposits</td>
</tr>
<tr>
<td>Nitrate (as nitrogen) (ppm) [1040]</td>
<td>10</td>
<td>10</td>
<td>2.09</td>
<td>1.79/2.09</td>
<td>7-20-00</td>
<td>N</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
</tr>
</tbody>
</table>

### Synthetic Organic Contaminants including Pesticides and Herbicides

| Atrazine (ppb) [2050] | 3 | 3 | 0.3 | N/D | 5-23-00 | N | Runoff from herbicide used on row crops |
| Di (2-ethylhexyl) phthalate (ppb) [2039] | 6 | 0 | 0.7 | N/D | 3-23-00 | N | Discharge from rubber and chemical factories |
| Simazine (ppb) [2037] | 4 | 4 | 0.1 | N/D | 3-23-00 | N | Herbicide runoff |

### Volatile Organic Contaminants

| 73. TTHM [total trihalomethanes] (ppb) | 100 (80*) | 0 | 63 | 13-117 | N | By-product of drinking water chlorination |

### Unregulated Contaminants Test Results

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Unit</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromodichloromethane [2943]</td>
<td>ppb</td>
<td>12.7</td>
<td>7.7-17</td>
</tr>
<tr>
<td>Bromoform [2942]</td>
<td>ppb</td>
<td>25</td>
<td>N/D-5</td>
</tr>
<tr>
<td>Chloroform [2941]</td>
<td>ppb</td>
<td>27.8</td>
<td>18-54</td>
</tr>
<tr>
<td>Dibromochloromethane (Chlorodibromo) [2944]</td>
<td>ppb</td>
<td>4.6</td>
<td>1.7-7.5</td>
</tr>
</tbody>
</table>
FROM THE GENERAL MANAGER

Welcome to the third annual report on the quality of your drinking water. We hope you find this report to be interesting and informative.

In Henderson, we are fortunate to be on an abundant source of water, the Ohio River. While the quantity of water is abundant, our challenge is taking the quality of water in the river and converting it to a quality suitable for drinking. We continually strive to produce the best quality of water that we can from our river raw material. Our operators continually undergo training to keep abreast of the latest methods of treatment.

New federal regulations on the quality of drinking water are being phased in over the next 10 years. Meeting these regulations treating Ohio River water is becoming increasingly more difficult, and expensive. That is the reason why we have been investigating the use of riverbank infiltration wells. Using the natural sands and gravels of the riverbank is an inexpensive way to take out the majority of the fine sediments that contribute to water quality problems.

Raw water taken from these infiltration wells falls under a different set of treatment requirements and can be produced to a high water quality at a lower cost per gallon. We will keep you, our customers, informed as we make progress in this area. Providing the residences, businesses, and industries of Henderson and Henderson County with an adequate supply of potable water is a capital-intensive effort. We are in the process of implementing adjustments to our rates and fees to make sure the capital is available to make the investments necessary to keep a clean, safe, and dependable supply of water flowing to our users.

Even with the rate adjustments we plan to make, the water we produce and distribute to our customers in Henderson, Webster, and McLean Counties is still one of the best values in today's marketplace. Our water is supplied directly to your tap at a fraction of the cost and a quality generally better than bottled water. We are proud to have served you, our customers, for another year. Thank you for giving us that opportunity.

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