



Henderson Water Utility  
Drinking Water Quality Report  
for 2006  
Reporting data collected in 2005  
South Water System



*The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table though representative, may be more than one year old.*

**Water Board Commissioners**

Jeanne Marie Gadiant, Leo Peckenpaugh, George Jones, Laffoon (Chip) Williams and Rodger Bird

**From the Treatment Manager:**

There is **nothing** more important to HWU than having a community that is confident in the quality of its drinking water. Water is an integral part of life and there should be **no compromise** in us providing you with safe, healthy, and aesthetically pleasing water.

As such, your water is under tremendous scrutiny. There are more than 2,000 checks and analyses performed **every day** to ensure that your water is healthy, clear, and available on demand. In the course of a year, nearly one million tests (visual, analytical, and physical) have been conducted to ensure the quality of your water. This report is a summation of those tests. It is telling you that you can not only get a drink of water from your kitchen sink but you can also watch your children play in the fountain downtown or swim at the pool without worry of a waterborne illness.

Our goal is to continuously improve in quality and efficiency. As our society becomes more technologically advanced, and scientists are able to detect smaller and smaller constituents in the water, regulations become more stringent and difficult to meet without our treatment processes also advancing. This past year, we have done extensive work to our 6 filters. This work is saving you money by helping to decrease our operating costs, but more importantly, it's providing you with even better water than before.

Looking to the future, we are facing a lot of difficult challenges together. Aging infrastructure, increased regulatory and security demands, disastrous weather, rising petroleum costs, and the desire to attract more industry makes replacement and expansion not only a necessity, but an unavoidable progression. This is happening in every growing community and will continue to happen – Henderson is not alone in this costly dilemma. We tend to look at a community water system in terms of a living body, with the water treatment plant(s) being the heart. Water is the lifeblood of the community and the distribution system is its arteries and veins. Any doctor will tell you that the worse condition your veins, arteries, and/or heart is in, the worse condition your whole body is in – it's the same for a community. It takes commitment, trust, and sometimes a total transplant, to get back into a healthy state where life is prolonged.

HWU is working hard to provide exceptional service for today as well as the future for the residents of Henderson. High quality water is our number one goal, whether we're supplying you with something to drink or discharging what we've used back into the river for the next community to treat. Your good health is our highest priority – your confidence is our reward. We encourage you to report every instance where you feel quality is deficient. We want our system to be perfect but are not blind to our limitations – we want to correct any and every quality deficiency as quickly and effectively as we can. We need your help to do this and thank you for it in advance. It is a privilege to serve the residents of Henderson.

**Kevin M. Roberts**  
Treatment Manager

## Water Sources

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 human activity. Contaminants that may be present in source water include microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain 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 (1-800-426-4791).*

### **Type and Location of Your Water Source**

The source of your drinking water is the surface water from the Green River, located at approximately river mile marker 41.3 or 9000 Hwy 2096 in Robards, Kentucky. The area around your water source is mostly residential but also contains some industrial activity. The final source water assessment for this system has been completed and is contained in the Henderson County Water Utility, the Main office of Henderson Water Utility or at the Green River Area Development District office in Owensboro, Kentucky. Following is a summary of the system's susceptibility to contamination, which is a part of the completed Source Water Plan (SWAP). An analysis of the susceptibility of Henderson's Ohio River and Green River water supplies to contamination indicates that this susceptibility is generally moderate. However, there are a few areas of high concern. Potential contaminant sources of concern include bridges, waste generators or transporters, landfills; river ports a railroad, row crop land coverage, urban and recreational grass coverage and sewer lines.

### ***Definitions & Abbreviations***

**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 a contaminant that is allowed in drinking water. MCLs are set very close to the MCLGs as feasible using the best available treatment technology.

N/A - not applicable.

**Nephelometric Turbidity Unit (NTU)** – measurement of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.

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

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

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

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

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

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

**Maximum Residual Disinfectant Level (MRDL)** - 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.

## Customers' Right to Know Information

For information about contaminants and potential health effects, you may contact the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. Also, Henderson Water Utility wants to keep our customers informed. If you have any questions concerning this report, or about the Henderson Water Utility (HWU), please contact Lucy Fry: at (270) 826-2421 or visit our web site at [www.hkywater.org](http://www.hkywater.org). You may also attend one of our meetings on the Third Monday of every month at 4:30 PM, 111 Fifth Street in Henderson.

### *Possible Health Risk*

**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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).**

**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 rain fall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

### **Fluoride**

**Fluoride is being 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.**

*Copper:* Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage.

*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 house hold should be identified and removed, replaced or reduced.

*Turbidity:* Turbidity is a measurement of the clarity of the water; it can provide a medium for microbial Growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system

### ***One in a Million***

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 everyday at the MCL level for a lifetime to have a one-in-million chance of having the described health effect.

### **VIOLATIONS**

- A. ***HENDERSON WATER UTILITY SOUTH WATER TREATMENT PLANT RECEIVED REPORTING VIOLATIONS FOR HALOCITIC ACIDS (HAAS'S) IN 4<sup>TH</sup> QUARTER 2004, 1<sup>ST</sup> QUARTER 2005, AND 2<sup>ND</sup> QUARTER 2005.***

***SOME PEOPLE WHO DRINK WATER CONTAINING HALOACETIC ACIDS IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.***

***IN RESPONSE TO, THE KENTUCKY DIVISION OF WATER, HENDERSON WATER UTILITY IMPLEMENTED THE FOLLOWING ACTIONS:***

- 1. INSTALLED THE MEANS TO COVER OUR UPFLOW CLARIFIERS TO REDUCE ALGAE FORMATIONS***
- 2. MOVED CHLORINATION POINTS FOR ALGAE CONTROL.***
- 3. STARTED FEEDING POWERED ACTIVATED CARBON ON A CONSISTENT BASIS TO DRIVE DOWN TOC.***
- 4. WORKING WITH ENGINEERS AND OTHER UTILITIES THAT STRUGGLE ON THE GREEN RIVER TO DETERMINE WHAT ADDITIONAL PROCESSES WE CAN IMPLEMENT TO KEEP THE DBP LEVELS WELL UNDER MCL.***

***AS OF FEBRUARY, 2006, OUR DBP NUMBERS ARE WELL BELOW THE MCL.***

- B. ***HENDERSON WATER UTILITY SOUTH WATER TREATMENT PLANT RECEIVED A REPORTING VIOLATION. IN THE CONSUMER CONFIDENCE REPORT (CCR) FOR 2004-2005. THE CCR HAD CONTENT PROBLEMS IN LANGUAGE, TABLE DETECT CONTENT, AND REPORTING ON DISTRIBUTION IN THE CERTIFICATION FORM. THIS IS ONLY A REPORTING VIOLATION AND DOES NOT REPRESENT AN EXCEEDENCE OF CONTAMINATES AND IN NO WAY ADVERSLEY AFFECTED THE QUALITY OF YOUR WATER.***

***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.***