



Henderson Water Utility  
Drinking Water Quality Report  
for 2004  
Reporting data collected in 2003  
South Water System



**Water Board Commissioners**

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

**We are Proud to report that the water provided by Henderson South Water Utility meets or exceeds all established water quality standards.**

**The following information explains how drinking water provided by Henderson Water Utility is of the highest quality available. Included is a listing of results from water quality tests, as well as an explanation of where our water comes from. We are proud to share our results with you. Please read them carefully.**

**General Manager Message for CCR**

As the new General Manager of the Henderson Water Utility it is my pleasure and privilege to present to you with this year's Water Quality Report. The Henderson Water Utility has an excellent group of employees that care about the health and safety of our community. Our employees are dedicated to providing you with quality drinking water at a reasonable price. Customers of the Henderson Water Utility receive excellent quality water at a price that is a real bargain when compared to our neighboring communities.

This is the fifth year of providing an annual report on our water quality. The Utility has worked hard over the last five years to improve our water and sewer. Significant investment has been made in our infrastructure to provide for the long term needs of our customers, but much remains to be done. Water and sewer lines do eventually wear out, just like the washers, dryers and appliances in our homes. We have water lines that will soon need to be replaced. We are developing a comprehensive long range plan for the replacement of lines in our system.

We request your feedback on the services we provide. I encourage you to provide us with comments or suggestions as to how we may serve you better. Our Utility's goal is to provide you the best service possible.

We ask for your help in insuring the security of our water supply and keeping our costs low. Please report any unusual or suspicious activity that you observe around any of our facilities to the Henderson Police Department.

Please visit our website at [www.hkywater.org](http://www.hkywater.org) for more information about any of our water, waste water or storm water programs.

Respectfully,  
Bruce L. Shipley  
General Manager

**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 fourth Tuesday of every month at 4:00 PM, 111 Fifth Street in Henderson.

**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 contaminates 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.

### ***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.

### ***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.

**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.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

### **Total Coliforms**

The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up test are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by media (newspaper, television or radio). To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

# THE FINAL ANALYSIS FOR CALENDER YEAR 2003

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation Y/N	Likely Source
Turbidity (NTU)	Less than 0.3 NTU 95% of samples each month	0.369	98.8%	N	Soil runoff

## REGULATED CONTAMINANT TEST RESULTS

Contaminant [code] (units)	MCL	MCLG	Highest Detection	Range	Date of Sample	Violation	Likely Source of Contamination
Barium [1010] (ppm)	2	2	0.049	N/A	7-18-2002	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine (ppm)	MRDL 4	MRDLG 4	1.78 (annual average)	1.33-1.97 (monthly average)	2 <sup>nd</sup> quarter 2002	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Fluoride [1025] (ppm)	4	4	1.30	0.58-1.30	4-11-2002	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) [1040] (ppm)	10	10	2.22	1.09-2.22	6-6-2002	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Atrazine [2050] (ppb)	3	3	0.6	ND-0.60	7-8-2002	N	Runoff from herbicide used on row crops
Dalapon [2031] (ppb)	2	2	1.10	ND-1.10	7-8-2002	N	Runoff from herbicide used on row crops
Di(2-ethylhexyl)phthlate [2039] (ppb)	6	6	0.80	ND-0.80	10-7-2002	N	Discharge from petroleum refineries
Simazine [2037] (ppb)	4	4	0.10	ND-0.10	10-7-2002	N	Herbicide runoff

## Unregulated Contaminants Test Results

Contaminant [code]	Unit	Average	Range
Bromodichloromethane [2943]	ppb	8.4	5.3-16
Chloroform [2941]	ppb	51.8	18-81
Dibromochloromethane (Chlorodibromo) [2944]	ppb	1.3	ND-4

**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.

**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.

**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.**

### Possible Health Risk

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people 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 (1-800-426-4791).