Henderson Water Utility
PWSID: KY0510510
Drinking Water Quality Report
for 2008
Reporting data collected in 2007
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 the table though representative, may be more than one year old.

Water Board Commissioners

Jeanne Marie Gadient, Steve Austin, George Jones, Laffoon (Chip) Williams and Rodger Bird

From a plant operator,

My name is Toby White. I am one of eight water treatment plant operators who work hard to ensure that the water you drink is not only safe but also tastes and looks good. Henderson Water Utility produces nearly 3.8 billion gallons of water each year for our City and County residents and customers. Every drop of this water must be safe for several reasons. First, at the end of each shift I work, I sign my name testifying that under penalty of federal law, it is safe to drink. I guarantee it.

Secondly, the water that you use and enjoy reflects my work. If you are not confident in your water then that tells me that you are not confident in me or my ability. I take great pride in my work and the effort of my co-workers. Additionally, it is all but impossible for me to make a mistake that will go unnoticed due to the amount of checks and balances that are built into our processes.

Third, my family drinks the water I send out into the system. If I fail to do a good job, one of my children or my wife could get very sick. If I fail to do a good job, one of you could. As a result of just these three reasons, I am very serious about my job and I do my very best at it. You, as well as my family, count on me to do this and Henderson Water Utility would not allow that trust to be misplaced.

I have served you for more than a decade and look forward to many more years of faithful service. There are many challenges ahead with increased and tightening regulations but nothing that will ever stop us from ensuring that you have some of the best quality drinking water available. I guarantee it.

Toby White
Operator

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 Henderson Water Utility (HWU), please contact Lucy Fry: at (270) 826-2421 or visit our web site at www.hkywater.org. You may also attend one of our meetings on the Third Monday of every month at 4:30 PM, at the Bob Gish Administration Building, 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 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides, which may come from a voariety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems. Radioactive contaminants, which can b e naturally-occurring or be the result of oil and gas production and mining activities. 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. *FDA regulations establish limits for contaminants in bottled water that provide the same protection for public health.*

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.

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

Definitions & Abbreviations

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

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 as 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) -- a 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.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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.

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 (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 rainfall 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*

Information About Lead:

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. Your local public water system 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 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 or at http://www.epa.gov/safewater/lead.

VIOLATIONS

A. ***HENDERSON WATER UTILITY SOUTH WATER TREATMENT PLANT RECEIVED A VIOLATION FOR : THE ABSENCE OF THE CCR TABLE.***
HENDERSON WATER WILL MAKE SURE ALL CCR INFORMATION IS PROVIDED TO THE STATE.

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.

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 o

2008 HENDERSON WATER TREATMENT SOUTH CCR USING 2007 DATA

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source
Turbidity (NT * Representativ of filtered wat	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.176	100	No	Soil runoff

Turbidity is a measurment 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 of the effectiveness of the filtration system.

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection			Date of Sample	Violation	Likely Source of Contamination
Radioactive Contaminants									
Alpha emitters [4000] (pCi/L)	15	0	0.15	0	to	0.6	Nov-07	No	Erosion of natural deposits
Combined radi (pCi/L)	5	0	0.25	0.1	to	0.7	Jun-07	No	Erosion of natural deposits
Uranium (µg/L)	30	0	0.15	0	to	0.3	Nov-07	No	Erosion of natural deposits
Inorganic Contaminants									
Barium [1010] (ppm)	2	2	0.04	0.037	to	0.037	Feb-07	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] sites exceeding 0	AL = 1.3	1.3	0.008 (90^{th} percentile)	0.008	to	0.008	Sep-06	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	1.00	0.091	to	1.25	Jul 2007	No	Water additive which promotes strong teeth
Lead [1030] (p sites exceeding 0	AL = 15	0	0.8 (90^{th} percentile)	0.8	to	0.8	Sep-06	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	2.20	1.59	to	2.74	Nov-07	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite [1041] (ppm)	1	1	0.02	0.02	to	0.02	Feb-07	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides									
Atrazine [2050] (ppb)	3	3	0.08	BDL	to	0.3	Jul-07	No	Runoff from herbicide used on row crops
Disinfectants/Disinfection Byproducts and Precursors									
Total Organic Carbon (ppm) (measured as p reported as a ratio)	TT*	N/A	1.01 (lowest average)	0.94	to (monthly ratios)	1.13	N/A	No	Naturally present in environment.
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.									
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.60 (highest average)	0.52	to	2.59	N/A	No	Water additive used to control microbes.
Chlorite (ppm)	1	0.8	0.14 (average)	0.01	to	0.137	Jun	No	Byproduct of drinking water disinfection.
Chlorine dioxi	MRDL = 800	MRDLG = 800	140	0	to	140	Dec	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic aci	60	N/A	43 (system average)	20	to (range of system sites)	66	N/A	No	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalome	80	N/A	42 (system average)	10	to (range of system sites)	92	N/A	No	Byproduct of drinking water disinfection.