Henderson Water Utility
PWSID: KY0510510
Drinking Water Quality Report
for 2009
Reporting data collected in 2008
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

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

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.*

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)."

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.

VIOLATIONS

A. ***HENDERSON WATER UTILITY SOUTH WATER TREATMENT PLANT RECEIVED A 27 MONITORING, ROUNTINE (DBP).***
THE VIOLATION IS DUE TO A TECHNICALITY—NOT BECAUSE OF WATER QUALITY OR FAILURE TO MONITOR.

IN RESPONSE TO, THE KENTUCKY DIVISON OF WATER, HENDERSON WATER UTILITY IMPLEMENTED THE THE FOLLOWING ACTION:

1. **IN THE FUTURE, HENDERSON WATER UTILITY WILL CONFIRM ALL LABORATORY DATA TO MAKE SURE ALL INFORMATION IS SUPPLIED BEFORE SUBMISSION TO THE DIVISION OF WATER.**

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.

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.

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

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.259	100	No	Soil runoff

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria # or % positive samples	5%	0		N/A			Naturally present in the environment
Fecal coliform & E.coli % positive samples	0%	0		N/A			Human and animal fecal waste
Radioactive Contaminants							
Beta photon emitters (mrem/yr)	4	0		to			Decay of natural and man-made deposits
Alpha emitters [4000] (pCi/L)	15	0	0.83	0.3 to 1.4	Dec-07	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	0.05	0 to 0.1	Apr-07	No	Erosion of natural deposits
Uranium (µg/L)	30	0	0.28	0 to 0.7	Apr-07	No	Erosion of natural deposits
Inorganic Contaminants							
Antimony [1074] (ppb)	6	6		to			Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic [1005] (ppb)	10	N/A		to			Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos (MFL)	7	7		to			Decay of asbestos cement water mains; erosion of natural deposits
Barium [1010] (ppm)	2	2		to			Drilling wastes; metal refineries; erosion of natural deposits
Beryllium [1075] (ppb)	4	4		to			Metal refineries and coal-burning factories; electrical, aerospace, and defense industries
Cadmium [1015] (ppb)	5	5		to			Corrosion of galvanized pipes; erosion of natural deposits; metal refineries; waste batteries and paints
Chromium [1020] (ppb)	100	100		to			Discharge from steel and pulp mills; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action leve 0	AL = 1.3	1.3	0.4 (90th percentile)	0.4 to 0.4	Nov-08	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	1.00	0.83 to 1.13	Jan 2008	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action leve 0	AL = 15	0	2 (90th percentile)	2 to 2	Nov-08	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	1.85	1.25 to 2.18	Mar-08	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	Mar-08	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.01 (lowest average)	1.00 to 1.35 (monthly ratios)	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 f							
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.72 (highest average)	0 to 3.36	N/A	No	Water additive used to control microbes.
Chlorite (ppm)	1	0.8	0.65 (average)	0.167 to 0.653	May	No	Byproduct of drinking water disinfection.
Chlorine dioxide (ppb)	MRDL = 800	MRDLG = 800	260	0 to 260	May	No	Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	31 (system average)	5 to 67 (range of system sites)	N/A	No	Byproduct of drinking water disinfection
HAA (ppb) (IDSE) [Haloacetic acids]	IDSE (individual distribution system evaluation) is a study to determine future individual sites.			15.8 to 52 (range of individual sites)	IDSE initiated Feb-08	No	Byproduct of drinking water disinfection
HAA (ppb) [Haloacetic acids] (Individal Sites)	60	N/A	49 (locational average)	20 to 66 (range of individual sites)	N/A	No	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	40 (system average)	5 to 59 (range of system sites)	N/A	No	Byproduct of drinking water disinfection.
TTHM (ppb) [total trihalomethanes] (Individal Sites)	80	N/A	57.1 (locational average)	10 to 92 (range of individual sites)	N/A	No	Byproduct of drinking water disinfection.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

HENDERSON WATER UTILITY SOUTH SYSTEM

Monitoring Requirements Not Met

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the wet season of 2008, we did not complete all monitoring or testing for Sodium, and therefore cannot be sure of the quality of our drinking water during that time.

What should I do?

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Sodium, and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples will be taken.

Contaminant	**Required sampling frequency**	**Number of samples taken**	**Samples should have been taken**	**When samples were or will be taken**
1052 Sodium	Twice / Year	1	2	03-05-2009

What happened? Who is at risk? What is being done?

The certified laboratory contracted by Henderson Water Utility South Plant failed to take the required number of Sodium samples for the year 2008. No known health effects to any segment(s) of the population have resulted from the missing sample. Historical data shows our region to be consistently below regulated limits. The MCL for Sodium is 20mg/L. Henderson Water Utility South's five (5) year average is 10.6mg/L. Corrective measures have been implemented to assure and confirm that all laboratory testing is completed and submitted.

For more information contact: KEVIN ROBERTS
Phone: 270-826-2824
Mailing Address: 230 NORTH ALVASIA STREET, HENDERSON, KY 42420

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by:		HENDERSON WATER UTILITY SOUTH SYSTEM		
Public Water System ID #:		KY0510510		
			Date	3/3-2009