Hazard Water Department
Water Quality Report 2016

Water System ID: KY0970184 City Manager: Grady Varney 606-436-3171	CCR Contact: Robert Davidson 606-436-2033 hazardwaterplant@yahoo.com	Mailing Address: PO Box 420 Hazard, KY 41701	Meeting location and time: Hazard City Hall Third Monday monthly at 7:00 PM

Following is a summary of the Hazard water systems susceptibility to contamination. The Hazard Water Department treats surface water from the North Fork of the Kentucky River. An analysis of the susceptibility of the Hazard water supply to contamination indicates that susceptibility is generally moderate. However, there are a few areas of concern. A major road runs parallel to the river just upstream of the intake and six bridges are within close proximity to the intake to pose an immediate threat in the event of a release of hazardous materials. Some logging has occurred and there is potential for more. Other areas of concern are close proximity of several underground storage tanks and business activities that have the potential for release of hazardous chemicals. There is limited mining activity near the intake and substantial mining throughout the watershed. There are substantial amounts of oil and gas wells in the protection area but are generally some distance from the intake. The complete source water assessment is available in the Perry County Water Supply Plan. That plan is available for viewing at the Kentucky River Area Development District office in Hazard, Kentucky.

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 contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may 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, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). 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. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

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).

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.

Some or all of these definitions may be found in this report:
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.
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.
Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.
Not Applicable (N/A) - does not apply.
Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) - or micrograms per liter, (µg/L). 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) - a measure of the radioactivity in water.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.
Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.
Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

Violations 2016-9953236, 2016-9953237, 2016-9953239
Hazard exceeded the MCL for haloacetic acids (HAA) during each of the four quarters of 2016. The standard for haloacetic acids is 0.060 mg/L. Listed below are the periods and values for each quarter. Public notices were distributed for each violation.
1/1/2016 through 3/31/2016 0.062 mg/L
4/1/2016 through 6/30/2016 0.062 mg/L
7/1/2016 through 9/30/2016 0.066 mg/L
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
We are continuing to work to minimize the formation of haloacetic acids while ensuring we maintain an adequate level of disinfectant. We are evaluating treatment processes, chemical changes at the water treatment plant and water storage tank levels and water flow patterns within the distribution system. We anticipate resolving the problem within the next year.

Other Contaminants							
Cryptosporidium [oocysts/L]	0	TT (99% removal)	0 (positive samples)	12 (no. of samples)	2016	No	Human and animal fecal waste

	Average	Range of Detection		
Fluoride (added for dental health)	0.9	0.62	to	1.3
Sodium (EPA guidance level = 20 mg/L)	24.2	24.2	to	24.2

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide addition information about the quality of the water.

Secondary Contaminant	Maximum Allowable Level	Report Level	Range of Detection			Date of Sample
Aluminum	0.05 to 0.2 mg/l	0.02	0.02	to	0.02	Feb-16
Chloride	250 mg/l	18.1	18.1	to	18.1	Feb-16
Corrosivity	Noncorrosive	-0.874	-0.874	to	-0.874	Feb-16
Fluoride	2.0 mg/l	0.9	0.9	to	0.9	Feb-16
Odor	3 threshold odor number	3	3	to	3	Feb-16
pH	6.5 to 8.5	7.18	7.18	to	7.18	Feb-16
Sulfate	250 mg/l	133	133	to	133	Feb-16
Total Dissolved Solids	500 mg/l	289	289	to	289	Feb-16

Monthly Operation Report Violations
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 January 2016, we did not complete all monitoring by failing to report or correctly report testing for Monthly Operation Report. Therefore, we could not verify the quality of your drinking water to the primacy agency during that time.

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 July 2016, we did not complete all monitoring or testing for chlorine, and therefore cannot be sure of the quality of your drinking water during that time.

Each month we are required to complete a Monthly Operation Report (MOR) and submit it to the Kentucky Division of Water by the tenth of the following month. This report includes daily testing results, chemicals added, and total volumes treated.

Violation 2016-9953234 – Our MOR for January 2016 did not arrive at Division of Water until February 16, 2016.
Violation 2016-9953238 – Our MOR for July 2016 did not include the daily distribution system chlorine residual results page.

There is nothing you need to do. You may continue to drink the water. There are no health effects for failure to submit complete and timely reports. All documents have been submitted.

For more information, please contact Grady Varney at 606-436-3171 or P.O. Box 420, Hazard, KY 41701.

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.