

Jessamine-South Elkhorn Water District Water Quality Report 2016

Water System ID: KY0570249 Superintendent: Richard Decker 859-553-6346	CCR Contact: Richard Decker 859-553-6346 jessamine.south@jsewd.com	Mailing Address: P.O. Box 731 Nicholasville, KY 40340	Meeting location and time: 802 S Main St First Wednesday monthly at 1:00 PM
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We purchase our water from Kentucky American Water Company (serves Hwy 68 corridor), City of Nicholasville (serves southeast portion of Jessamine County), and Wilmore Utilities (serves two meters in Asbury College). All three systems treat surface water from the Kentucky River. Each of the producers has conducted an analysis of susceptibility to contamination and the overall susceptibility is considered moderate to moderately high. Areas of high concern include transportation corridors, underground and above ground storage tanks, agricultural land use, industrial sites, and waste generators. Kentucky River is most vulnerable to agricultural runoff, which may include pesticides, nutrients and pathogens. Activities and land use within the watershed can pose potential risks to your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. The respective Source Water Assessment Plans are available for review at each of the water producers. Contact information for our suppliers can be obtained by calling our office at 859-881-0589.

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.

Variance & 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.

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.

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU Less than 0.3 NTU in 95% monthly samples	KA N W	0.09 0.1 0.29	100	No	Soil runoff

Regulated Contaminant Test Results: KA=Kentucky American, N=Nicholasville, W=Wilmore, JS=Jessamine South Elkhorn

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Total Coliform Bacteria # or % positive samples	TT	N/A	JS	2	N/A	2016	No	Naturally present in the environment
Combined radium (pCi/L)	5	0	W	1.2	1.2 to 1.2	2016	No	Erosion of natural deposits
Barium [1010] (ppm)	2	2	N W	0.02 0.02	0.02 to 0.02 0.02 to 0.02	2016	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	JS	0.057 (90 th percentile)	0 to 0.34	2014	No	Corrosion of household plumbing systems
Cyanide [1024] (ppb)	200	200	N	10	10 to 10	2016	No	Discharge from steel/metal factories; plastic and fertilizer factories
Fluoride [1025] (ppm)	4	4	KA N W	0.69 0.7 0.8	0.69 to 0.69 0.7 to 0.7 0.8 to 0.8	2016	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	JS	0 (90 th percentile)	0 to 208	2014	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	KA N	0.34 0.6	0.34 to 0.34 0.3 to 0.6	2016	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	KA N W	1.11 1.47 1.74	0.75 to 1.84 1.08 to 2.18 1.74 to 1.87	2016	No	Naturally present in environment.

*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Chloramines (ppm)	MRDL = 4	MRDLG = 4	JS	1.64 (highest average)	0.47 to 2.30	2016	No	Water additive used to control microbes.
Chlorine (ppm)	MRDL = 4	MRDLG = 4	JS	1.64 (highest average)	0.92 to 1.49	2016	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	JS	58 (average)	8.4 to 73 (range of individual sites)	2016	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	JS	80 (average)	14 to 120 (range of individual sites)	2016	No	Byproduct of drinking water disinfection.

Other Contaminants

Cryptosporidium [oocysts/L]	0 (99% removal)	TT	KA N	11 2 (positive samples)	36 9 (no. of samples)	2016	No	Human and animal fecal waste
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Cryptosporidium

Kentucky American and Nicholasville were required to monitor the source of your drinking water for Cryptosporidium in order to determine whether treatment at the water treatment plant was sufficient to adequately remove Cryptosporidium from your drinking water. Raw water samples tested during the past year indicated the presence of Cryptosporidium in the source water. Adequate treatment processes remove Cryptosporidium from the water, but additional treatment options are being evaluated.

Coliform Bacteria

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take two corrective actions and we completed two of these actions.

Violation 2016-9443415

We received a violation because our CCR for 2014 did not arrive by the due date of July 1, 2015. The report was not received by Division of Water until August 4, 2015. We have taken steps to prevent this from occurring in the future.

Violation 2016-9443416 (linked to 2014-9443413)

We received a violation for not performing a public notice for violation 2014-9443413 when we failed to collect an asbestos sample between 1/1/2011 and 12/31/2013. The public notice should have stated:

Our water system failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

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 1/1/2011 – 12/31/2013, we did not complete all monitoring or testing for asbestos, and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

Water systems are required to test for particular contaminants on a specific schedule. We failed to collect the asbestos sample during the required time period. We have taken steps to prevent this from occurring in the future.

For more information, please contact Richard Decker at 859-553-6346 or P.O. Box 731, Nicholasville, KY 40340.

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 report will not be mailed unless requested. Copies are available at our office. If you desire a copy to be mailed to you please contact our office.