



Water - Essential for Life

Jessamine South Elkhorn Water District Water Quality Report for year 2013

KY0570249

P O Box 731
Nicholasville, KY 40340
Meetings: 802 S Main St, Nicholasville, KY 40356
Meeting Dates and Time: First Wednesday of each Month 1:00 PM

Manager: **Glenn T Smith**
Phone: **859/229-6656**
CCR Contact: **Diana Clark**
Phone: **859/881-0589**

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

Jessamine South Elkhorn Water District (D) purchases water from three different sources. The Kentucky-American Water Company of Lexington (A) serves the northwest area of the county. The City of Nicholasville (B) serves the southeast area of the county. The City of Wilmore (C) serves one customer in the northwest. All three of our suppliers treat surface water from the Kentucky River. The source water assessments indicate that susceptibility to contamination is generally moderate with a few areas of high concern. The Kentucky River is most vulnerable to contamination from agricultural and urban run-off which can typically include pesticides, nutrients, and silt from croplands and potential pathogens from pasture lands and lawn care products. Several highway bridges pose an immediate threat in the event of accidental chemical spills. More detailed information can be reviewed in the complete Source Water Assessment Plans at Nicholasville Public Utilities Building or Kentucky-American Water Company.

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).

Some or all of these definitions may be found in this report:

Information About Lead:

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 a 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.

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>.

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. Unless otherwise noted, the report level is the highest level detected.

	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	0		Soil runoff

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
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Microbiological Contaminants

Total Coliform Bacteria # or % positive samples	1	0	2	N/A	Jun	Yes	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 (pCi/L)	50	0		to			Decay of natural and man-made deposits
Alpha emitters [4000] (pCi/L)	15	0		to			Erosion of natural deposits
Combined radium (pCi/L)	5	0		to			Erosion of natural deposits
Uranium (µg/L)	30	0		to			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 level 0	AL = 1.3	1.3	0.29 (90 th percentile)	0 to 0.64	Aug-11	No	Corrosion of household plumbing systems
Cyanide [1024] (ppb)	200	200		to			Discharge from steel/metal factories; plastic and fertilizer factories
Fluoride [1025] (ppm)	4	4		0 to 0			Water additive which promotes strong teeth
Lead [1030] (ppb)	AL =		0				Corrosion of household plumbing

sites exceeding action level 0	15	0	(90 th percentile)	0 to 0	Aug-11		Corrosion of household plumbing systems
Mercury [1035] (ppb)	2	2		to			Erosion of natural deposits; refineries and factories; landfills; runoff from cropland
Nickel (ppm) (US EPA remanded MCL in February 1995)	N/A	N/A		to			N/A
Nitrate [1040] (ppm)	10	10		to			Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite [1041] (ppm)	1	1		to			Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium [1045] (ppb)	50	50		to			Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium [1085] (ppb)	2	0.5		to			Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides							
2,4-D [2105] (ppb)	70	70		to			Runoff from herbicide used on row crops
2,4,5-TP (Silvex) [2110] (ppb)	50	50		to			Residue of banned herbicide
Acrylamide	TT	0		to			Added to water during sewage/wastewater treatment
Alachlor [2051] (ppb)	2	0		to			Runoff from herbicide used on row crops
Atrazine [2050] (ppb)	3	3		to			Runoff from herbicide used on row crops
Benzo(a)pyrene(PAH) [2306] (ppt)	200	0		to			Leaching from linings of water storage tanks and distribution lines
Carbofuran [2046] (ppb)	40	40		to			Leaching of soil fumigant used on rice and alfalfa
Chlordane [2959] (ppb)	2	0		to			Residue of banned termiticide
Dalapon [2031] (ppb)	200	200		to			Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate [2035] (ppb)	400	400		to			Discharge from chemical factories
Di(2-ethylhexyl)phthalate [2039] (ppb)	6	0		to			Discharge from rubber and chemical factories
Dibromochloropropane [2931] (ppt)	200	0		to			Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb [2041] (ppb)	7	7		to			Runoff from herbicide used on soybeans and vegetables
Diquat [2032] (ppb)	20	20		to			Runoff from herbicide use
Dioxin [2,3,7,8-TCDD] (ppq)	30	0		to			Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall [2033] (ppb)	100	100		to			Runoff from herbicide use
Endrin [2005] (ppb)	2	2		to			Residue of banned insecticide

Epichlorohydrin	TT	0		to			Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide [2946] (ppt)	50	0		to			Discharge from petroleum refineries
Glyphosate [2034] (ppb)	700	700		to			Runoff from herbicide use
Heptachlor [2065] (ppt)	400	0		to			Residue of banned termiticide
Heptachlor epoxide [2067] (ppt)	200	0		to			Breakdown of heptachlor
Hexachlorobenzene [2274] (ppb)	1	0		to			Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene [2042] (ppb)	50	50		to			Discharge from chemical factories
Lindane [2010] (ppt)	200	200		to			Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor [2015] (ppb)	40	40		to			Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl (Valdate) [2036] (ppb)	200	200		to			Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCB's (Polychlorinated biphenyls) [2383] (ppt)	500	0		to			Runoff from landfills; discharge of waste chemicals
Pentachlorophenol [2326] (ppb)	1	0		to			Discharge from wood preserving factories
Picloram [2040] (ppb)	500	500		to			Herbicide runoff
Simazine [2037] (ppb)	4	4		to			Herbicide runoff
Toxaphene [2020] (ppb)	3	0		to			Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants							
Benzene [2990] (ppb)	5	0		to			from gas storage tanks and landfills
Carbon tetrachloride [2982] (ppb)	5	0		to			Discharge from chemical plants and other industrial activities
Chlorobenzene [2989] (ppb)	100	100		to			Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene [2968] (ppb)	600	600		to			Discharge from industrial chemical factories
p-Dichlorobenzene [2969] (ppb)	75	75		to			Discharge from industrial chemical factories
1,2-Dichloroethane [2980] (ppb)	5	0		to			Discharge from industrial chemical factories
1,1-Dichloroethylene [2977] (ppb)	7	7		to			Discharge from industrial chemical factories
cis-1,2-Dichloroethylene [2380] (ppb)	70	70		to			Discharge from industrial chemical factories
trans-1,2-Dichloroethylene [2979] (ppb)	100	100		to			Discharge from industrial chemical factories
Dichloromethane [2964] (ppb)	5	0		to			Discharge from pharmaceutical and chemical factories

1,2-Dichloropropane [2983] (ppb)	5	0		to			Discharge from industrial chemical factories
Ethylbenzene [2992] (ppb)	700	700		to			Discharge from petroleum refineries
Styrene [2996] (ppb)	100	100		to			Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene [2987] (ppb)	5	0		to			Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4-Trichlorobenzene [2378] (ppb)	70	70		to			Discharge from textile-finishing factories
1,1,1-Trichloroethane [2981] (ppb)	200	200		to			Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane [2985] (ppb)	5	5		to			Discharge from industrial chemical factories
Trichloroethylene [2984] (ppb)	5	0		to			Discharge from metal degreasing sites and other factories
Toluene [2991] (ppm)	1	1		to			Discharge from petroleum factories
Vinyl Chloride [2976] (ppb)	2	0		to			Leaching from PVC piping; discharge from plastics factories
Xylenes [2955] (ppm)	10	10		to			factories; discharge from chemical factories
Disinfectants/Disinfection Byproducts and Precursors							
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	(lowest average)	0.00 to (monthly ratios)		N/A	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.							
Bromate (ppb)	10	0		to			Byproduct of drinking water chlorination
Chloramines (ppm)	MRDL = 4	MRDLG = 4	(highest average)	to		N/A	Water additive used to control microbes.
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.93 (highest average)	0.9 to 2.12		N/A	No Water additive used to control microbes.
Chlorite (ppm)	1	0.8	0.00 (average)	0 to 0			Byproduct of drinking water disinfection.
Chlorine dioxide (ppb)	MRDL = 800	MRDLG = 800	0	0 to 0			Water additive used to control microbes.
HAA (ppb) (all sites) [Haloacetic acids]	60	N/A	0 (system average)	0 to 0 (range of system sites)		N/A	Byproduct of drinking water disinfection
HAA (ppb) (IDSE) [Haloacetic acids]	IDSE (individual distribution system evaluation) is a study to determine future individual sites.			to (range of individual sites)		IDSE initiated	Byproduct of drinking water disinfection
HAA (ppb) [Haloacetic acids] (Individual Sites)	60	N/A	0 (locational average)	0 to 0 (range of individual sites)		N/A	Byproduct of drinking water disinfection
TTHM (ppb) (IDSE) [total trihalomethanes]	IDSE (individual distribution system evaluation) is a study to determine future individual sites.			to (range of individual sites)		IDSE initiated	Byproduct of drinking water disinfection
TTHM (ppb) (all sites) [total trihalomethanes]	80	N/A	0 (system average)	0 to 0 (range of system sites)		N/A	Byproduct of drinking water disinfection.
TTHM (ppb) [total trihalomethanes] (Individual Sites)	80	N/A	0 (locational average)	0 to 0 (range of individual sites)		N/A	Byproduct of drinking water disinfection.

Other Contaminants						
Cryptosporidium [oocysts/L]	0	TT (99% removal)	(positive samples)	(no. of samples)	N/A	Human and animal fecal waste
Radon	N/A	N/A	(positive samples)	(no. of samples)	N/A	Naturally present in the environment

Unregulated Contaminants (UCMR 2)	average	range (ppb)	date
Dimethoate		to	
Terbufos sulfone		to	
2,2',4,4'-tetrabromodiphenyl ether (BDE-47)		to	
2,2',4,4',5-pentabromodiphenyl ether (BDE-99)		to	
2,2',4,4',5,5'-hexabromobiphenyl (HBB)		to	
2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153)		to	
2,2',4,4',6-pentabromodiphenyl ether (BDE-100)		to	
1,3-dinitrobenzene		to	
2,4,6-trinitrotoluene (TNT)		to	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)		to	
Acetochlor		to	
Alachlor		to	
Metolachlor		to	
Acetochlor ethane sulfonic acid (ESA)		to	
Acetochlor oxanilic acid (OA)		to	
Alachlor ethane sulfonic acid(ESA)		to	
Alachlor oxanilic acid (OA)		to	
Metolachlor ethane sulfonic acid(ESA)		to	
Metolachlor oxanilic acid (OA)		to	
N-nitroso-diethylamine (NDEA)		to	
N-nitroso-dimethylamine (NDMA)		to	
N-nitroso-di-n-butylamine (NDBA)		to	
N-nitroso-di-n-propylamine (NDPA)		to	
N-nitroso-methylethylamine (NMEA)		to	
N-nitroso-pyrrolidine (NPYR)		to	

EPA has not established drinking water standards for unregulated contaminants. There are no MCL's and therefore no violations if found.

Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. (in cell above health effects , provide a clear, understandable explanation of what happened, when it happened, and corrective actions)

Secondary contaminants do not have a direct impact on the health of consumers and are not required in the Consumer Confidence Report. They are being included to provide additional 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		to	
Chloride	250 mg/l		to	
Color	15 color units		to	
Copper	1.0 mg/l		to	
Corrosivity	Noncorrosive		N/A	
Fluoride	2.0 mg/l		to	
Foaming Agents	0.5 mg/l		to	
Iron	0.3 mg/l		to	
Manganese	0.05 mg/l		to	
Odor	3 threshold odor number		to	
pH	6.5 to 8.5		to	
Silver	0.1 mg/l		to	
Sulfate	250 mg/l		to	
Total Dissolved Solids	500 mg/l		to	
Zinc	5 mg/l		to	
Sodium	optimum level =20 mg/L		to	

Consumer Confidence Report Certification

Jessamine South Elkhorn Water District
Population Served 9091

KY0570249

(If your water system has multiple PWSID numbers a separate report and certification letter is required for each PWSID.)

This notice confirms that a Consumer Confidence Report was prepared and distributed according to the requirements for our system and appropriate notices of availability were given. The report contains information that is correct and consistent with the compliance monitoring data previously submitted to the Division of Water. The copy of the report furnished to the Division of Water is identical to information provided to the consumers.

Distribution and public notification: Water systems may choose to use a variety of notification methods, but must at a minimum use the methods required for their system population size.

Delivery Options: Mail or Direct Deliver or Publish in the Newspaper

What was main delivery method:

Answer YES or NO to each delivery method

Posted in Public Places	yes / no <input type="text"/>
Direct or hand delivered	yes / no <input type="text"/>
Mailed to customers	yes / no <input type="text"/>
Published in a newspaper *	yes / no <input type="text"/>
Placed on the internet	<input type="text"/>

All water systems are required to do the following:

Make copies available to public

(list where copies are available)

Perform "good faith effort"

Southland Christian Church, City of Nicholasville, Ky Am Water

Mail Copy to:

Division of Water

(Certify within 14 days after distribution or publication but no later than July 1.)

Drinking Water Compliance and Technical Assistance Section
200 Fair Oaks Lane 4th Floor ATTN: CCR
Frankfort, KY 40601

Date:

(insert)

Division of Water: 502-564-3410 Fax: 502-564-2741

Name: Glenn T Smith
Address: P O Box 731
Nicholasville, KY 40340

Title: Superintendent
Phone: 859/229-6656

jessaminesouth@windstream.net

Signature: _____

Date: 11/21/2016