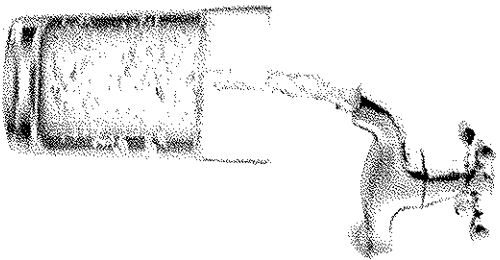


# Estill County Water District #1 Water Quality Report 2012



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 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.

Estill County Water District # 1 purchases water from Irvine Municipal Utilities and Jackson County Water Association. Both suppliers treat surface water: Irvine from the KY River and Jackson County from Lake Bouth. The overall susceptibility of our water sources to contamination is generally moderate; however, there are a few areas of concern. There are eleven roadway bridges and a railroad located within the watersheds. Other activities of concern include wastewater discharges, Tier II hazardous chemical users, waste generators or transporters, underground storage tanks and injection control wells. A complete source water assessment can be obtained or reviewed at the Estill County Water District. Under certain circumstances activities within the watershed could release contaminants and thereby 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 complete source water assessment and wellhead protection plans may be reviewed at the Estill County Water District office.

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. Immunocompromised 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:**

- 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 (NA)** - 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 \$1,000,000.

**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.

**Picoctets per liter (pCi/L)** - a measure of the radioactivity in water.

**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.

**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.

**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>.



**Quality On Tap!**

Our Commitment to Our Profession

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

Water System ID: KY0330123  
 Manager: Dwight Richardson  
 606-723-3795  
 CCR Contact: Andrea Miller  
 606-723-3795  
 Mailing address:  
 76 Cedar Grove Road  
 Irvine, KY 40336

Meeting location and time:  
 Water District Office on the last  
 Thursday of the month at 3:00 pm.

Return Service Requested

The data presented in this report are from the most recent testing done in accordance with Administrative Regulations in 401 KAR Chapter 6. As required by 401 KAR 6:020, the State has established monitoring requirements for certain contaminants at no less than once per year because the concentrations of these pollutants are expected to fluctuate seasonally. This report meets the requirements of 401 KAR 6:020, although some concentrations may be more than one year old. Unless otherwise noted, this report meets the higher standard of the Kentucky Drinking Water Act.

**A = Irvine Municipal Utilities**    **B = Jackson County Water Association**    **C = Estill County Water District #1**

Method / Analyte	Result	Units	Standard	Violation	Source
<b>Turbidity (NTU)</b>	No more than 1 NTU as a representative sample no more than 0.3 NTU in 95% of representative samples		1.00	No	See results report
<b>Residual Chlorine</b>	1.00	mg/L	0.50	No	See results report
<b>Total Organic Carbon (TOC)</b>	2.5	mg/L	2.00	No	Naturally present in the environment
<b>Calcium</b>	135	mg/L	175	No	Excess of natural deposits
<b>Magnesium</b>	25	mg/L	75	No	Excess of natural deposits
<b>Total Hardness</b>	160	mg/L	250	No	Excess of natural deposits
<b>Chloride</b>	18	mg/L	250	No	Excess of natural deposits
<b>Sulfate</b>	30	mg/L	250	No	Excess of natural deposits
<b>Sulfide</b>	0.00	mg/L	0.10	No	Naturally present in the environment
<b>Iron</b>	0.02	mg/L	0.30	No	Excess of natural deposits
<b>Copper</b>	0.01	mg/L	1.30	No	Excess of natural deposits
<b>Zinc</b>	0.03	mg/L	0.30	No	Excess of natural deposits
<b>Lead</b>	0.01	mg/L	0.01	No	Excess of natural deposits
<b>Cadmium</b>	0.001	mg/L	0.01	No	Excess of natural deposits
<b>Mercury</b>	0.001	mg/L	0.02	No	Excess of natural deposits
<b>Fluoride</b>	1.3	mg/L	4.00	No	Excess of natural deposits
<b>Strontium</b>	0.2	mg/L	7.00	No	Excess of natural deposits
<b>Barium</b>	0.5	mg/L	2.00	No	Excess of natural deposits
<b>Vanadium</b>	0.1	mg/L	1.00	No	Excess of natural deposits
<b>Chromium (VI)</b>	0.01	mg/L	0.10	No	Excess of natural deposits
<b>Chromium (Total)</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Asbestos</b>	0.01	mg/L	0.01	No	Excess of natural deposits
<b>Formaldehyde</b>	0.01	mg/L	0.08	No	Excess of natural deposits
<b>Phenol</b>	0.01	mg/L	0.01	No	Excess of natural deposits
<b>Trihalomethanes</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Halogenated Volatiles</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Pesticides</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Herbicides</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Fungicides</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Antibiotics</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Microbiological Contaminants</b>					
<b>Total Coliform Bacteria</b>	1	CFU/100 mL	5	No	Naturally present in the environment
<b>Fecal Coliform Bacteria</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Enterococci</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Salmonella</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>E. coli</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Staphylococcus aureus</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Streptococcus faecalis</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Pseudomonas aeruginosa</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Legionella pneumophila</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Cryptosporidium</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Toxigenic Bacteria</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Diatoms</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Amoebae</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Protozoa</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Algae</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Fungi</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Vertebrates</b>	0	CFU/100 mL	0	No	Naturally present in the environment
<b>Inorganic Contaminants</b>					
<b>Ammonia</b>	0	mg/L	1.00	No	Excess of natural deposits
<b>Nitrite</b>	0	mg/L	1.00	No	Excess of natural deposits
<b>Nitrate</b>	0	mg/L	10.00	No	Excess of natural deposits
<b>Chloride</b>	18	mg/L	250	No	Excess of natural deposits
<b>Sulfate</b>	30	mg/L	250	No	Excess of natural deposits
<b>Total Hardness</b>	48	mg/L	250	No	Excess of natural deposits
<b>Calcium</b>	18	mg/L	175	No	Excess of natural deposits
<b>Magnesium</b>	30	mg/L	75	No	Excess of natural deposits
<b>Total Organic Carbon (TOC)</b>	2.5	mg/L	2.00	No	Naturally present in the environment
<b>Total Organic Halogen (TOH)</b>	0.5	mg/L	1.00	No	Naturally present in the environment
<b>Total Organic Phosphorus (TOP)</b>	0.1	mg/L	0.20	No	Naturally present in the environment
<b>Total Organic Nitrogen (TON)</b>	0.1	mg/L	0.20	No	Naturally present in the environment
<b>Total Dissolved Solids (TDS)</b>	160	mg/L	500	No	Excess of natural deposits
<b>Chlorine Demand</b>	0.5	mg/L	1.00	No	Excess of natural deposits
<b>Manganese</b>	0.05	mg/L	0.10	No	Excess of natural deposits
<b>Iron</b>	0.02	mg/L	0.30	No	Excess of natural deposits
<b>Copper</b>	0.01	mg/L	1.30	No	Excess of natural deposits
<b>Zinc</b>	0.03	mg/L	0.30	No	Excess of natural deposits
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<b>Vertebrates</b>	0	CFU/100 mL	0	No	Naturally present in the environment

**Violations**

**Consumer Confidence Rule:**  
 We were found in violation of the Consumer Confidence Rule on 7/24/12. The 2011 consumer confidence report was missing some of the EPA required language. We have made those corrections on this year's report.

**Lead & Copper Rule:**  
 We were found in violation of the Lead & Copper Rule on 1/24/2012. We failed to submit the required number of Lead & Copper analytical results during the 1/1/2009 - 12/31/2011 compliance period. The requirement was to submit 30 sample results; however we submitted 28. All 30 samples were taken 8/3/2012 and submitted to the Division of Water.

**Health Effects:**  
 There are no health effects associated with these violations.