Laurel County Water District No. 2
PWSID # KY 0630238
2006 Water Quality Report

We are pleased to present this Annual Water Quality Report. 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 would like the public to be assured that we will continue to monitor, improve, and protect the water system and deliver a high quality water direct from the tap. We know that 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. Please report any activity that might jeopardize the water supply.

LCWD #2 treats water as well as purchases water from London Utility Commission (LUC). The source of water for both systems is surface water withdrawn from Laurel River and Little Indian Camp Branch, respectively. A source water assessment that addresses the system's susceptibility to contamination has been conducted. This study indicates that our susceptibility is high

due to historic incidents such as spills and the susceptibility rating for LUC is moderate. Potential sources of contamination within the watershed include transportation routes (road/rail), wastewater, oil and gas wells, agriculture and timberland. These activities increase the susceptibility of the water source to siltation, nutrients and pesticides. Activities and land uses within the watershed can pose potential risks to your drinking water. Under certain circumstances contaminants could be released that would pose challenges to water treatment or even get into your drinking water. These activities, and how they are conducted, are of interest to our customers because they potentially affect your health and the cost of treating your water. For more information a complete copy of the source water assessment for both systems can be reviewed Cumberland Valley Area Development 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 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, (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.

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/Centers for Disease Control (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).

If you have any questions regarding this report or would like more information about your Water District please contact James D. Sensabaugh at 606-878-2494. Our regular meetings are held the 2nd Tuesday each month at 5:00 pm at our office located at 3910 South Laurel Road London, KY.

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) - 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.

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.

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. Source codes are as follows: A = Laurel County Water District #2 (KY 0630238) B = London Utility Commission (KY 0630255) .

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	A=	0.29	100	No	
* Representative samples	Less than 0.3 NTU in	B=	0.05	100	No	Soil runoff
of filtered water	95% monthly samples					

Regulated Contaminant Test Results

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection			Date of Sample	Violation	Likely Source of Contamination
Radioactive Contaminants										
Alpha emitters	15	0	A=	0.2	0	to	0.2	Jul-02	No	Erosion of natural deposits
[4000] (pCi/L)			B=	0.5	0	to	0.05	2002	No	
Combined radium	5	0	A=	0.5	0	to	0.05	Jun-02	No	Erosion of natural deposits
(pCi/L)			B=	1.1	0	to	1.1	2002	No	
Inorganic Contaminants										
Copper [1022] (ppm)	AL =		A=	0.270						Corrosion of household plumbing systems
sites exceeding action level	1.3	1.3		(90^{th}	0	to	0.48	Jul-06	No	
0				percentile)						
Fluoride			A=	1.23	0.34	to	1.23	Aug-06	No	Water additive which promotes strong teeth
[1025] (ppm)	4	4	B=	0.96	0.96	to	0.96	Jul-06	No	
Lead [1030] (ppb)	AL =		A=	1						Corrosion of household plumbing systems
sites exceeding action level	15	0		(90^{th}	0	to	2	Jul-06	No	
0				percentile)						
Nitrate			A=	0.6	0.6	to	0.6	Jul-06	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
[1040] (ppm)	10	10	B=	0.25	BDL	to	0.25	Mar-06	No	
Disinfectants/Disinfection Byproducts and Precursors										
Total Organic Carbon (ppm)			A=	1.04	0.59	to	1.78		No	Naturally present in environment.
(report level=lowest avg.	TT*	N/A	B=	1.6	1.6	to	1.8	N/A	No	
range of monthly ratios)										
*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.										
Chlorine	MRDL	MRDLG	A=	1.00						Water additive used to control microbes.
(ppm)	= 4	= 4		(highest	1.03	to	2.30	N/A	No	
				average)						
Chlorite	1	0.8	A=	0.553	0.00	to	0.55	Sep-06	No	Byproduct of drinking water disinfection.
(ppm)				(average)						
Chlorine dioxide (ppb)	MRDL	MRDLG								Water additive used to control microbes.
	= 800	= 800	A=	520	0	to	520	May-06	No	
HAA (ppb)			A=	60						Byproduct of drinking water disinfection
[Haloacetic acids]	60	N/A		(highest	35	to	70	N/A	No	
				average)						
TTHM (ppb)			A=	67						Byproduct of drinking water disinfection.
[total trihalomethanes]	80	N/A		(highest	23	to	126	N/A	No	
				average)						

Maximum Contaminant Levels (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 every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

We are pleased to report that neither Laurel County Water District #2 nor London Utility Commission received any water quality violations during 2006.

Laurel County Water District No. 2
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