2009-00056

Lawrenceburg Water and Sewer P.O. Box 290 Lawrenceburg, KY 40342 502.839.5372

RECEIVED

JAN 20 2009

PUBLIC SERVICE COMMISSION

Ms. Stephanie Stumbo Kentucky Public Service Commission 211 Sower Blvd. P.O. Box 615

**RE: Wholesale Rate Increase** 

Dear Ms. Stumbo:

Frankfort, KY 40602

January 21, 2009

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Due to increased operating expenses, the City of Lawrenceburg has determined that the wholesale rate must be increased to water sold to the South Anderson Water District.

The rates will be increased as set out below.

	Current Rate	Revised Rate	Increase
First 8,000,000			
Minimum Bill	\$2.25	\$2.49	.24
Over 8,000,000			
Per 1,000 Gallons	2.10	2.41	.31

The minimum bill will increase from \$18,000 to \$19,280.

The rates will become effective upon 30 days from the date of this filing and approval of the Kentucky Public Service Commission. The proposed date of the new rates is on and after February 22, 2009

Enclosed you will find a tariff sheet setting out the new rate, a rate ordinance, and a copy of the cost of service study used to determine the wholesale rate.

A copy of the notice given to South Anderson is included in this filing along with a rate study to determine the proposed rate.

If you have any questions regarding the matter please contact me.

Sincerely

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Larry Hazlett Public Works Director

Lawrenceburg Water and Sewer P.O. Box 290 Lawrenceburg, KY 40342 502.839.5372

January 21, 2009

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Ms. Brenda Robinson South Anderson Water District PO Box 17 Lawrenceburg, KY 40342

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Dear Ms. Robinson:

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The rates will be increased as set out below.

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Over 8,000,000 Per 1,000 Gallons	2.10	2.41	.31

The minimum bill will increase from \$18,000 to \$19,280.

Enclosed you will a copy of the cost of service study used to determine the wholesale rate. Lawrenceburg will file its application on January 21, 2009 with the Kentucky Public Service Commission. The proposed effective date is February 22, 2009.

If you have any questions regarding the matter please contact me.

Sincerely Larry Hazlett Public Works Director

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# **RATE ANALYSIS**

## 1. GENERAL

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Water rates to wholesale utilities should be cost based and developed in accordance with current accepted methodologies. Users who receive benefits from the system should pay their share of transmission and distribution expenses needed to maintain the utility.

This study outlines the procedure for calculating the cost of service caused by the South Anderson Water District who purchases water from the City of Lawrenceburg. The results are shown below:

,	Current Rate Per 1,000 Gallons	Revised Rate Per 1,000 Gallons	Increase
First 8,000,000	\$2.25	\$2.49	.24
Over 8,000,000	2.10	2.41	.31

The minimum bill will increase from \$18,000 to \$19,280

# 2. WATER RATE FORMULA

The rate formula for water purchased by South Anderson is:

# Annual Cost of Water Service Caused by the Utility in Dollars Annual Amount of Water Purchased by the Utility in 1,000 Gallons

The rate established by the formula will recover all costs caused by the Utility, including operation expenses, debt, and capital improvements on that part of the system that is used jointly by the Utility and other customers.

#### 3. INFORMATION REQUIRED

Calculation of the cost of water service requires basic financial data along with data on water production, total consumption, plant use and line loss.

# 4. COST OF SERVICE CALCULATION

## 4.1 Cost Allocation Factors

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In order to determine the cost of service to South Anderson Water District the proportionate use of the City's water facilities must be established and defined. This requires establishing the following proportional use factors:

## a. Water Production Factor

The water production factor is used to allocate costs related to water production. This factor is based on two parameters, system line loss and water plant use.

System line loss is allocated to the purchasing utility in proportion to jointly used lines. The assumption is that leak potential is at pipe joints or that leaks occur around the circumference of the joints. Circumference is directly proportional to pipe diameter. The leak potential is also related to the number of pipe joints, which is directly proportional to both length and diameter.

The allocation method used is the inch (diameter) – mile (length) concept, which yields a weighted factor that, is directly proportional to diameter and total length of jointly used system pipelines. It is understood that much line loss occurs through breaks or pipe splitting but there is no practical method for determination of this type of loss potential.

Treatment plant use is allocated in full because this percentage of treated water must be produced in excess of every gallons sold.

The derivation of the Water Plant Production Factor is as follows:

WL = <u>WP – WS</u> where WL = Line Loss and Plant Use WP WP = Water Produced and sold WS = Water Sold

If WS = 1 gallon then through algebraic transformation

WP is the water production multiplier yielding the amount of water that needs to be produced for each gallon sold. In the case of Lawrenceburg, it must produce 1.3902 gallons to sell one gallon of water.

The general water production factor for a utility purchasing water from a utility that produces its water is as follows:

System Line Loss Allocation = IM x SL Plant Use Allocation = PU

 $WL = IM \times SL + PU$ 

$$WP = \frac{1}{1 - (IM \times SL + PU)}$$

The Water Production Cost Allocation Factor (WPF) is determined as follows:

WPF = <u>Water Sold to Purch. Utility x WP for Purch. Utility</u> Total Water Sold x WP for Selling Utility

## b. Transmission Factor

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The transmission factor allocates distribution system operating expenses in proportion to the amount of transmission system used by the purchasing utility. The factor has two components. The ratio of the length of transmission pipeline jointly used to the total length of pipeline in the system.

The second component is the ratio of the water purchased by South Anderson to total water purchased in the system. These two components are multiplied together to compute the transmission factor. In a distribution system of relatively homogeneous pipe sizes, a ratio of pipeline lengths is sufficient. In a system of a wide disparity of line, a more appropriate method is required namely, a ratio of inch-miles. The inch mile concept was used in this study.

The transmission factor is used to allocate broad categories of debt service and operating expenses not included in a more refined breakdown. The inch-mile concept takes into consideration that virtually all costs vary in direct proportion to size and length. The allocation factors are developed and summarized in the various schedules included in this report.

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Source: A portion of the language included in this summary was taken from a report issued by Carlos Miller PE, dated June 1992

CITY OF LAWRENCEBURG				
WATER PRODUCE	D AND SOLD			
Lawrenceburg (1)	351,976,430	0.4416		
South Anderson (2)	134,098,000	0.1682		
Plant Use (3)	63,768,950	0.0800		
Line Loss (4)	247,268,500	0.3102		
Total Produced (5)	797,111,880	100%		
(1) Lawrenceburg Usage from Monthly Usage Registers				
(2) South Anderson Usage from Master Meter Readings				
(3) Plant Use Based on 8% as Compared to Other Utilities				
(4) Line Loss Based on Total Other Usage and Total Produced				
(5) Total Produced from KYDOW Reports				

New York

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CITY OF LAWRENCEBURG					
JOINTLY USED MILES OF LINE					
Size Miles Inch Miles of Line Inch Miles					
2	9.10	18.20	0.00	0	
4	37.40	149.60	0.00	0	
6	83.90	503.40	. 0.00	0	
8	9.10	72.80	1.95	15.60	
12	10.10	121.20	5.90	70.80	
16	1.10	17.60	`1.09	17.44	
20	1.38	27.60	1.38	27.60	
Total	152.08	910.40	10.32	131.44	
South Anderso	n Ratio		0.1444		

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CITY OF LAWREN	ICEBURG			
WHOLESALE ALLOCAT				
Line Loss Percentage			0.3102	
Plant Use			0.0800	
Total Plant Use and Line Loss			0.3902	
Lawrenceburg Production Multipler	1 / 13902		1.6399	
Wholesale Inch Mile Ratio	131.44 / 910.4		0.1443	
Wholeshare Share of Line Loss	.3102 *.1443		0.0448	
Joint Share of Plant Use and Line Loss	.0448 + .0800		0.1248	
Production Multiplier	1 / 11248		1.1426	
Production Allocation Factor	134,098,000		<u>1.1426</u>	
	486,074,437	*	1.6399	0.1922
Transmission Factor	134,098,000			
	486,074,437	*	0.1443	0.0398
Use Factor	134,098,000			
	486,074,437			0.2759

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CITY OF LAWRENCEBURG					
TOTAL EXPENSES			Allocation Factors	Allocated to South Anderson	Lawrenceburg Expenses
Salaries	\$	640,000	0.1922	\$ 123,008	\$ 516,992
Social Security		40,000	0.1922	7,688	32,312
Medicare		9,300	0.1922	1,787	7,513
Retirement		100,000	0.1922	19,220	80,780
Health Insurance		71,000	0.1922	13,646	57,354
Rent		10,000	0.0398	398	9,602
Repairs and Maintenance		64,000	0.1922	12,301	51,699
Uniforms		7,000	0.0398	279	6,721
Gas and Oil		20,000	0.0398	796	19,204
Office Expense		37,000	0.0398	1,473	35,527
Telephone		14,000	0.0398	557	13,443
Utilities		141,000	0.2759	38,902	102,098
Insurance		73,000	0.1922	14,031	58,969
Travel and Training		7,000	0.1922	1,345	5,655
Professional		23,000	0.1922	4,421	18,579
Misc. Expense		5,000	0.0398	199	4,801
Building Maintenance		6,000	0.1922	1,153	4,847
Vehicle Repair		13,000	0.1922	2,499	10,501
Materials and Parts		80,000	0.1922	15,376	64,624
Chemicals		178,000	0.2759	49,110	128,890

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Interest	\$	13,500	0.1922	 	\$	13,500
Principal		59,000	0.1922	 11,340		47,660
Capital Outlay		64,000	0.1922	 12,301		51,699
TOTAL	\$	1,674,800		\$ 331,829	\$	1,342,971
Rate to South Anderson	\$334,4	24 / 134,098.0				
First 8,000,000 Gallons				\$ 2.49	Minim	um Bill
Over 8,000,000 Gallons				 2.41	Per 1,	000 Gallons
Current Rate (Minimum)				\$ 2.25		
Increase	\$2.49	- 2.25		\$ 0.24	Per 1,0	000 Gallons

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	FOR <u>Lawrenceburg</u> , <u>Kentucky</u> Community, Town or City
<u>City of Lawrenceburg</u> (Name of Utility)	P.S.C. KY. NO1
	Original SHEET NO. 1
	CANCELING P.S.C. KY. NO,
	SHEET NO.
	RULES AND REGULATIONS

Wholesale Rate to South Anderson Water District

First 8,000,000

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\$2.49 Minimum Bill which equals \$19,280 per month

Over 8,000,000

\$2.41 Per 1,000 Gallons

DATE OF ISSUE	<u>1-21-09</u> Month/Date/Year
DATE EFFECTIVE	2-22-09
	Month / Date / Year
ISSUED BY Clean	so Balis
/	(Signature of Officer)
TITLE Ma	ma
· /	
BY AUTHORITY OF ORDER C	OF THE PUBLIC SERVICE COMMISSION
IN CASE NO	DATED