

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF BEAVER-ELKHORN WATER )  
DISTRICT FOR (1) CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY - CONSTRUCTION - )  
PHASE III WATER LINE EXTENSIONS PURSUANT )  
TO KRS 278.020(1); (2) AUTHORIZATION OF )  
BORROWING FROM THE COMMONWEALTH OF )  
KENTUCKY, KENTUCKY INFRASTRUCTURE ) CASE NO.  
AUTHORITY WATER RESOURCES LOAN FUND - ) 95-200  
PHASE III PURSUANT TO KRS 278.300 AND )  
GRANT OF \$600,000 AND FROM ABANDONED )  
MINE LAND - \$540,000; (3) AUTHORITY TO )  
INCREASE RATES PURSUANT TO 807 KAR 5:001, )  
SECTION 10; AND (4) APPROVAL OF REVISED )  
TARIFF )

O R D E R

Beaver-Elkhorn Water District ("Beaver-Elkhorn") filed its application on June 13, 1995 for a Certificate of Public Convenience and Necessity to construct a waterworks improvement project, for approval of financing, and for an adjustment to its retail rates. Commission Staff, having performed a limited financial review of Beaver-Elkhorn's operations, has prepared the attached Staff Report containing Staff's findings and recommendations regarding the proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 15 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have no more than 15 days from the date of this Order to provide written comments regarding the attached Staff Report or requests for a hearing or informal conference. If no request for a hearing or

informal conference is received, this case will be submitted to the Commission for a decision.

Done at Frankfort, Kentucky, this 7th day of December, 1995.

PUBLIC SERVICE COMMISSION

  
For the Commission

ATTEST:

  
Don Mills  
Executive Director

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF BEAVER-ELKHORN WATER )  
DISTRICT FOR (1) CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY - CONSTRUCTION - )  
PHASE III WATER LINE EXTENSIONS PURSUANT TO )  
KRS 278.010 (1); (2) AUTHORIZATION OF )  
BORROWING FROM THE COMMONWEALTH OF KENTUCKY, )  
KENTUCKY INFRASTRUCTURE AUTHORITY WATER ) CASE NO. 95-200  
RESOURCES LOAN FUND - PHASE III PURSUANT TO )  
KRS 278.300 AND GRANT OF \$600,000 AND FROM )  
ABANDONED MINE LAND - \$540,000; )  
(3) AUTHORITY TO INCREASE RATES PURSUANT TO )  
807 KAR 5:001; SECTION 10; AND (4) APPROVAL )  
OF REVISED TARIFF )

STAFF REPORT

Prepared By: Mark C. Frost  
Public Utility Financial  
Analyst, Chief  
Water and Sewer Revenue  
Requirements Branch  
Financial Analysis Division

Prepared By: John Geoghegan  
Public Utility Rate  
Analyst, Chief  
Communications, Water  
and Sewer Rate Design Branch  
Rates and Research Division

STAFF REPORT

ON

BEAVER-ELKHORN WATER DISTRICT

CASE NO. 95-200

Beaver-Elkhorn Water District ("Beaver-Elkhorn") submitted its application on May 1, 1995 for a Certificate of Convenience and Necessity ("Certificate") to construct a \$4,349,011 waterworks improvement project, for approval of financing, and for an increase in rates. However, the application was not considered filed until June 13, 1995. The Commission issued an Interim Order on September 15, 1995 granting the Certificate and approving the proposed plan of financing.

In Order to evaluate the requested increase, the Commission Staff ("Staff") performed a limited financial review of Beaver-Elkhorn's test period operations for the 12 month period ending February 28, 1995. The scope of the review was limited to obtaining information as to whether the test-period operating revenues and expenses were representative of normal operations. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

Mark Frost of the Commission's Division of Financial Analysis performed the limited review on September 27, 1995 and October 4, 1995. Mr. Frost is responsible for the preparation of this Staff Report except for the determination of normalized Revenue from Water Sales, Rate Design, and Attachment D, which were prepared by John Geoghegan of the Commission's Division of Rates and Research.

A comparison of Beaver-Elkhorn's actual and pro forma operations is shown in Attachment A. Based upon Staff's recommendations, Beaver-Elkhorn's operating statement would appear as set forth in Attachment B.

Beaver-Elkhorn originally estimated that its Phase III construction project would extend service to 989 new customers. Using this estimate, Beaver-Elkhorn arrived at its normalized revenue from rates of \$913,590.

However, when the Phase III construction bids were received, the scope of the project was cut, which resulted in a decrease to the number of new customers from 989 to 747. This decrease in new customers coupled with the outcome of Staff's billing analysis resulted in normalized revenue from rates of \$838,802, a decrease of \$74,788 from Beaver-Elkhorn's estimate.

Using its normalized revenue from rates of \$913,590, Beaver-Elkhorn determined that its pro forma operations support a revenue requirement of \$1,058,842, an increase in its revenues from rates of \$119,370, as presented in Attachment C. As shown in that same Attachment, Staff's recommended operations, which includes normalized revenue from rates of \$838,802, result in a total revenue requirement of \$1,048,073, an increase in revenue from rates of \$183,389.

Staff's recommended increase is \$64,019 greater than the increase requested by Beaver-Elkhorn. This disparity can be

attributed to the differences between normalized revenues and total revenue requirements.<sup>1</sup>

The rates contained in Attachment D will achieve Staff's recommended level of revenue from rates of \$1,022,191.<sup>2</sup> Although the rates recommended by Staff are higher than those proposed by Beaver-Elkhorn, the increase was necessary because Phase III will have 242 less customers than Beaver-Elkhorn originally anticipated, resulting in less revenue from the project.

Signatures

*Mark C. Frost*

Prepared By: Mark C. Frost  
Public Utility Financial  
Analyst, Chief  
Water and Sewer Revenue  
Requirements Branch  
Financial Analysis Division

*John Geoghegan*

Prepared By: John Geoghegan  
Public Utility Rate  
Analyst, Chief  
Communications, Water and  
Sewer Rate Design Branch  
Rates and Research Division

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<sup>1</sup>	Normalized Revenue Difference	\$ 74,788
	Total Revenue Requirement Difference:	
	\$1,048,073 - \$1,058,842 =	<u>        10,769</u>
	Net Difference	<u>\$        64,019</u>
<sup>2</sup>	Total Revenue Requirement	\$ 1,048,073
	Less: Other Operating Revenue	19,922
	Interest Income	<u>        5,960</u>
	Revenue Requirement from Rates	<u>\$ 1,022,191</u>

**ATTACHMENT A  
STAFF REPORT CASE NO. 98-200  
BEAVER-ELKHORN'S REQUESTED OPERATIONS**

	Actual Test Period Operations	Pro Forma Adjustments	Foot- note Ref.	Pro Forma Operations
<b>Operating Revenues:</b>				
Water Sales	\$643,072	\$270,518		\$913,590
Service Fees & Penalties	17,730	0		17,730
Sprinklers	1,298	0		1,298
Miscellaneous Income	894	0		894
Interest Income	5,960	0		5,960
<b>Total Operating Revenues</b>	<b>\$688,954</b>	<b>\$270,518</b>		<b>\$939,472</b>
<b>Operating Expenses:</b>				
Operations Labor - Pumping	\$59,191	\$0		\$59,191
Fuel for Power Production	3,532	0		3,532
Fuel for Power Pumping	36,050	0		36,050
Operational Supplies & Exp - Pumping	11,324	0		11,324
Chemicals	22,615	0		22,615
Operational Supplies & Exp.- Water Treat.	2,953	0		2,953
Operations Labor - Trans. & Dist.	113,624	0		113,624
Operational Supplies & Exp. - Trans. & Dist.	35,952	28,500		64,452
Maintenance of Meters	46	0		46
Operational Supplies & Exp. - Cust. Accounts	15,123	0		15,123
Uncollectible Accounts	2,353	0		2,353
Operations Labor - Admin. & Gen.	22,865	5,400		28,265
Operational Supplies & Exp - Admin. & Gen.	11,582	0		11,582
Outside Services	30,580	0		30,580
Property Insurance	8,479	0		8,479
Employee Pensions & Benefits	64,941	0		64,941
Regulatory Commission Expense	2,250	4,376		6,626
Misc. & Commissioner Fees	5,799	0		5,799
Transportation	83	0		83
Depreciation	137,905	79,758		217,661
Payroll & Other Taxes	18,380	0		18,380
<b>Total Operating Expenses</b>	<b>\$803,626</b>	<b>\$118,032</b>		<b>\$721,658</b>
<b>Net Operating Income</b>	<b>\$85,328</b>	<b>\$152,486</b>		<b>\$217,814</b>
<b>Other Deductions:</b>				
Long-Term Interest Expense	24,249	(24,249)		0
Other Interest Expense	374	(374)		0
<b>Net Income</b>	<b>\$40,705</b>	<b>\$177,109</b>		<b>\$217,814</b>

**ATTACHMENT B  
STAFF REPORT CASE NO. 95-200  
STAFF'S RECOMMENDED PRO FORMA OPERATIONS**

	Actual Test Period Operations	Pro Forma Adjustments	Foot- note Ref.	Pro Forma Operations
<b>Operating Revenues:</b>				
Revenue from Water Sales	\$643,072	\$195,730	A	\$838,802
Service Fees & Penalties	17,730	0		17,730
Sprinklers	1,298	0		1,298
Miscellaneous Income	594	0		594
<b>Total Operating Revenues</b>	<b>\$662,694</b>	<b>\$195,730</b>		<b>\$858,424</b>
<b>Operating Expenses:</b>				
Salaries & Wages-Employees	\$195,660	\$6,304	B	\$201,964
Employee Pensions & Benefits	64,841	(8,799)	C	56,042
Purchased Power	39,582	7,611	D	47,193
Operational Supplies & Exp.	76,934	(24,114)	E	52,820
Chemicals	22,615	(4,125)	F	18,490
Maintenance of Meters	46	0		46
Uncollectible Accounts	2,353	0		2,353
Outside Services	30,560	0		30,560
Ins. - Property	8,479	(656)	G	7,823
Ins. - Workers Compensation	0	10,903	H	10,903
Regulatory Commission Expense	2,250	(1,234)	I	1,016
Misc. & Commissioner Fees	3,798	(634)	J	3,164
Transportation	83	0		83
Depreciation	137,905	130,664	K	268,569
Amortization	0	211	L	211
Payroll & Other Taxes	16,360	482	M	16,842
<b>Total Operating Expenses</b>	<b>\$603,826</b>	<b>\$116,633</b>		<b>\$720,459</b>
<b>Net Operating Income</b>	<b>\$59,368</b>	<b>\$78,897</b>		<b>\$138,265</b>
<b>Nonutility Income:</b>				
Interest Income	5,960	0		5,960
<b>Net Income Available for Debt Service</b>	<b>\$65,328</b>	<b>\$78,897</b>		<b>\$144,225</b>



**A. Revenue from Water Sales:**

On September 15, 1995, the Commission issued an Order approving Beaver-Elkhorn's proposed plant expansion to provide water service to an additional 747 customers. Staff's billing analysis reflects the test period water sales, the additional 747 customers, and Beaver-Elkhorn's current tariffed rate on file with the Commission.

Increment	Bills	Gallons	1,000	19,000	30,000	50,000
First 1,000 Ga	4,524	2,399,000	2,399,000			
Next 19,000 Gal	28,732	143,193,000	28,732,000	118,461,000		
Next 30,000 Gal	404	12,232,000	404,000	7,676,000	4,152,000	
Next 50,000 Gal	128	9,271,000	128,000	2,432,000	3,840,000	2,871,000
Over 100,000 Gal.	139	37,659,000	139,000	2,641,000	4,170,000	6,950,000
<b>Totals</b>	<b>31,927</b>	<b>204,754,000</b>	<b>29,802,000</b>	<b>129,210,000</b>	<b>12,162,000</b>	<b>9,821,000</b>

Increment	Bills	Gallons	Rate	Revenue
First 1,000 Ga	31,927	29,802,000	\$12.49	\$398,768
Next 19,000 Gal		129,210,000	\$2.24	289,430
Next 30,000 Gal		12,162,000	\$2.05	24,932
Next 50,000 Gal		9,821,000	\$1.73	16,990
Over 100,000 Gal.		23,759,000	\$1.54	36,589
<b>Subtotal</b>				<b>\$766,709</b>
Wholesale	60	44,109,000	\$1.54	67,928
Uncollectibles				4,165
<b>Normalized Revenues from Rates</b>				<b>\$838,802</b>
<b>Reported Revenues from Rates</b>				<b>643,072</b>
<b>Staff's Recommended Adjustment</b>				<b>\$195,730</b>

**B. Salaries & Wages - Employees:**

Beaver-Elkhorn informed Staff that it did not intend to hire any new employees as a result of its expansion. Therefore, Staff's recommended pro forma salaries & wages - employees expense is based on the current employee level, the number of hours each employee worked in the test period, and the 1995 pay rates. Because of the lack of supporting documentation, Staff did not include additional employees or increased overtime hours that might result from Beaver-Elkhorn's expansion.

	Pro Forma Salaries
Pumping Plant	\$63,418
Transmission & Distribution:	105,109
Office	33,457
Pro Forma Salaries & Wages-Employees	\$201,984
Reported Salaries & Wages-Employees	195,680
Staff's Recommended Adjustment	\$6,304

**C. Employee Pension & Benefits:**

This adjustment reflects Beaver-Elkhorn's 1995 health insurance premiums.

	Health Ins. Sep '95 Prem.	Life & AD&D Sep '95 Fee	Monthly Sep '95 Prem	Annual Premiums
Pumping Plant	\$1,533	\$24	\$1,557	\$18,684
Transmission & Dist.	\$2,403	\$40	\$2,443	29,310
Office	\$663	\$16	\$679	8,148
Pro Forma Health Ins. Premium				\$56,142
Reported Health Ins. Premium				64,941
Staff's Recommended Adjustment				(\$8,799)

**D. Purchased Power:**

Beaver Elkhorn's test period line loss was 49.1 percent, which exceeds the allowable limit of 15 percent established by this Commission. When informed of the Commission's line loss limitation, Beaver-Elkhorn told Staff that it is taking the following corrective actions to lower its line loss: (1) Replacing a large section of main from Allen to Martin; (2) Monitoring all water used by local fire departments; and (3) Keeping better records of all service and main line leaks. Staff review of the four previous annual reports reveals that excessive line loss is a historical problem Beaver-Elkhorn has been unable to control. Staff has adjusted the actual purchased power expense to recognize customer growth and the 15 percent line loss limitation on Beaver-Elkhorn's water production costs.

Service To:	Treatment Plant			Trans & Dist	Office
	Electric Ky Power	Electric Big Sandy	Gas East Ky	Electric Ky Power	Electric Ky Power
Mar-94	\$2,540	\$298	\$302	\$1,299	\$117
Apr-94	2,692	330	126	1,372	85
May-94	2,594	316	72	1,213	65
Jun-94	2,680	340	49	1,025	57
Jul-94	2,802	366	41	989	67
Aug-94	2,999	324	72	1,051	67
Sep-94	1,468	244	72	1,091	52
Oct-94	3,130	282	80	1,038	50
Nov-94	2,276	264	114	1,233	68
Dec-94	3,935	245	251	1,250	87
Jan-95	3,500	251	236	1,179	151
Feb-95	3,141	281	280	1,180	192
<b>Totals</b>	<b>\$33,737</b>	<b>\$3,541</b>	<b>\$1,692</b>	<b>\$13,920</b>	<b>\$1,058</b>

Test Period Treatment Plant - Electric	\$37,278
Divided by: Test Period Gallons Produced in Thousands	359,520
<b>Electric Cost Per 1,000 Gallons</b>	<b>\$0.104</b>
Test Period Water Sales in 1,000 Gallons	204,643
Water Sales to New Customers in 1,000 Gallons	44,820
Pro Forma Water Sales in 1,000 Gallons	249,463
Divided by: 85% Allowable Water Production	85%
Pro Forma Water Production in 1,000 Gallons	293,486
Multiplied by: Electric Cost Per 1,000 Gallons	\$0.104
Pro Forma Treatment Plant - Electric	\$30,523
Gas	1,692
Electric	14,978
Pro Forma Purchased Power	\$47,193
Reported Purchased Power	39,582
<b>Staff's Recommended Adjustment</b>	<b>\$7,611</b>

**E. Operational Supplies & Exp:**

This adjustment reflects: (1) Misclassified electric and gas payments have been removed and included in the determination of pro forma purchased power expense; (2) Payments to Porter Industries were for a pump station that was capitalized in the test period. Because accounts payable installments are not considered an operating expense, payments made to Porter Industries have been removed; (3) In 1995 Beaver-Elkhorn purchased a computer program and began to perform its customer billing in-house. Therefore, payments made to Computer & Utility Service have been eliminated. (4) Postage expense has been adjusted to reflect the pro forma level of customers and the current postage rate. (5) At the end of 1995, Beaver-Elkhorn moved into a new office. Rent expense has been adjusted to reflect Beaver-Elkhorn's increased rent of \$700 per month.

1) Electric & Gas:		(\$17,017)
2) Porter - Payments on Account for Pump Station		(3,000)
3) Computer & Utility Service		(10,725)
4) Postage:		
Pro Forma # of Bills	32,244	
Current Postage Rate	\$0.19	
	-----	
Pro Forma Postage Expense	\$6,126	
Reported Postage Expense	4,448	
	-----	
Postage Expense Adjustment		1,678
5) Office Rent:		
Monthly Rent	\$700	
Multiplied by: 12 Months	12	
	-----	
Pro Forma Rent	\$8,400	
Reported Office Rent	3,450	
	-----	
Office Rent Adjustment		4,950
Staff's Recommended Adjustment		----- ----- (\$24,114)

**F. Chemicals:**

Staff has adjusted the chemical expense to recognize customer growth and the 15 percent limitation on Beaver-Elkhorn's water production costs.

Test Period Chemical Cost	22,615
Divided by: Test Period Gallons Produced in 1,000 Gallons	359,520
	-----
Chemical Cost Per 1,000 Gallons	\$0.063
Multiplied by: Pro Forma Water Production in 1,000 Gallons	293,486
	-----
Pro Forma Chemical Expense	\$18,490
Reported Chemical Expense	22,615
	-----
Staff's Recommended Adjustment	----- ----- (\$4,125)

G. Ins. - Property

This adjustment is based on Staff's analysis of Beaver-Elkhorn's 1995 insurance premiums.

Walter P. Walters Eff. 3/25/95	Multi Peril	CPP1164357	\$4,663
Walter P. Walters Eff. 3/25/95	Com. Automobile	CBA1164357	2,956
Commissioners Bond			204
			-----
Current Insurance Premiums			\$7,823
Reported Ins - Property			8,479
			-----
Staff's Recommended Adjustment			(\$656)
			-----

H. Ins. - Workers Compensation:

This adjustment reflects Beaver-Elkhorn's current workers' compensation premiums and pro forma labor expense.

	Pro Forma Payroll	Rate per \$100	Pro Forma Premium
	-----		-----
Waterworks Operation & Drivers	\$168,527	\$6.85	\$11,544
Clerical Office Employees	\$33,457	\$0.50	167
			-----
Premium Subject to Modification			\$11,711
Experiences Modification Factor			86%
			-----
Pro Forma Standard Premium			\$10,071
Premium Discount 2.7%			272
Expense Constant			140
			-----
Pro Forma Annual Premium			\$9,939
Assessment	9,939	x 9.7% =	964
			-----
Pro Forma Workers' Comp Premium			\$10,903
			-----

I. Regulatory Commission Expense:

Beaver-Elkhorn is seeking to amortize accounting fees of \$19,878 incurred in Case No. 92-129 over a 3 year period. The fees were paid in the year incurred, and therefore have already been recovered from Beaver-Elkhorn's customers. While Beaver-Elkhorn will require the services of its accountant in the future, it is highly unlikely that Beaver-Elkhorn will pay accounting fees of this magnitude on a recurring basis; the accounting fees paid to date in this proceeding are \$3,049. Furthermore, allowing Beaver-Elkhorn to recover the cost of Case No. 92-129 from its current and future customers would constitute retroactive rate-making. For these reasons, amortization of the cost of Case No. 92-129 is not included in pro forma operations. However, the cost of this case has been amortized over 3 years.

Cost of Current Rate Case - Accounting Fee	\$3,049
Divided by: Recommended Period	3
	-----
Amortization Expense - Current Rate Case	\$1,016
Reported Amortization Expense - Case No. 92-129	2,250
	-----
Staff's Recommended Adjustment	(\$1,234)
	-----

J. Misc. & Commissioner Fees:  
 Non-recurring costs have been removed from test period operations and amortized.

Advertisements for Bids - Floyd County Newspapers	(\$634)
	-----

K. Depreciation:

This adjustment reflects: (1) In this current case, Beaver-Elkhorn has been granted a Certificate to extend its distribution system. Since revenues and expenses recommended herein have been adjusted to reflect the additional customers related to the distribution system expansion, depreciation expense has likewise been adjusted; and (2) Beaver -Elkhorn's on-going level of depreciation expense from the 1995 depreciation schedule included in the application.

Phase III Water Line Extension Cost	\$4,349,011
Divided by: Estimate Useful Life In Years	50
	-----
Pro Forma Depreciation Expense - Phase III	\$86,980
Add: Depreciation Expense per 1995 Schedule	181,809
	-----
Pro Forma Depreciation Expense	\$268,789
Less: Test Period Depreciation Expense	137,905
	-----
Staff's Recommended Adjustment	\$130,884
	-----

L. Amortization:

This adjustment reflects amortizing the cost to place the newspaper advertisements over a 3 year period to coincide with the rate case amortization.

	Cost of Advertisements	Amortization Period	Amortization Expense
	-----	-----	-----
Newspaper Advertisements	\$634	3	\$211
			-----

M. Payroll Taxes:

This adjustment reflects the additional FICA expense that will result from the increase to Beaver-Elkhorn's operations labor expense.

Pro Forma Salaries & Wages - Emp. Adj.	\$6,304
Multiplied by: Current FICA Rate	7.65%
	-----
Staff's Recommended Adjustment	\$482
	-----

**ATTACHMENT C  
STAFF REPORT CASE NO. 95-200  
COMPARISON OF THE REVENUE REQUIREMENTS**

**Beaver-Elkhorn's Revenue Requirement:**

<b>Debt Service:</b>	
First Guaranty National Bank	\$60,000
Kentucky Infrastructure Authority:	
Phase I & II	71,809
Phase III	149,178
	\$280,987
<b>Total Annual Debt Service</b>	<b>\$280,987</b>
<b>Multiplied by: Requested Coverage</b>	<b>1.2</b>
	<b>\$337,184</b>
<b>Requested Debt Service Coverage Amount</b>	<b>\$337,184</b>
<b>Add: Adjusted Operating Expenses</b>	<b>721,658</b>
	<b>\$1,058,842</b>
<b>Required Revenue</b>	<b>\$1,058,842</b>
<b>Less: Adjusted Revenues</b>	<b>939,472</b>
	<b>\$119,370</b>
<b>Requested Increase</b>	<b>\$119,370</b>

**Staff's Revenue Requirement:**

<b>Debt Service:</b>	
First Guaranty National Bank	\$60,000
Kentucky Infrastructure Authority:	
Phase I & II	69,218 *
Phase III	143,798 *
	\$273,012
<b>Total Debt Service</b>	<b>\$273,012</b>
<b>Multiplied by: 1.2 Coverage</b>	<b>1.2</b>
	<b>\$327,614</b>
<b>Subtotal</b>	<b>\$327,614</b>
<b>Adjusted Operating Expenses</b>	<b>720,459</b>
	<b>\$1,048,073</b>
<b>Revenue Requirement</b>	<b>\$1,048,073</b>
<b>Less: Adjusted Operating Revenue</b>	<b>858,724</b>
<b>Interest Income</b>	<b>5,960</b>
	<b>\$183,389</b>
<b>Recommended Revenue Increase</b>	<b>\$183,389</b>

\* Staff's KIA debt service is from the principal and interest calculation contained on the Phase II and Phase III amortization schedules.

ATTACHMENT D

BILLING ANALYSIS - BEAVER ELKHORN WATER DISTRICT  
STAFF RECOMMENDED REVENUE

Recommended Rates

A limited cost of service study was performed on Beaver-Elkhorn. The study showed that, in order for Beaver-Elkhorn to recover its customer costs and the cost of providing 1,000 gallons of water, the last 3 rate increments should be increased by a higher percentage than the first rate increment. Since there is no considerable difference between providing water for the 30,000 and 50,000 gallon increments, they have been consolidated into one step.

USAGE TABLE

INCREMENT	BILLS	GALLONS	<u>1,000</u>	<u>19,000</u>	<u>80,000</u>	<u>100,000</u>
FIRST 1,000	4,524	2,399,000	2,399,000			
NEXT 19,000	26,732	143,193,000	26,732,000	116,461,000		
NEXT 80,000	532	21,503,000	532,000	10,108,000	10,863,000	
NEXT 100,000	139	37,659,000	139,000	2,641,000	11,120,000	23,759,000
<b>TOTAL</b>	<b>31,927</b>	<b>204,754,000</b>	<b>29,802,000</b>	<b>129,210,000</b>	<b>21,983,000</b>	<b>23,759,000</b>

REVENUE TABLE  
REVENUE BY RATE INCREMENT

	<u>BILLS</u>	<u>GALLONS</u>	<u>RATE</u>	<u>REVENUE</u>
1,000	31,927	29,802.0	\$14.10	\$450,171
19,000		129,210.0	2.94	379,877
80,000		21,983.0	2.57	56,496
100,000		23,759.0	2.00	47,518
<b>SUBTOTAL</b>		<b>204,754.0</b>		<b>\$934,062</b>
<b>WHOLESALE 60</b>		<b>44,109.0</b>	<b>2.00</b>	<b>88,218</b>
<b>TOTAL</b>				<b>\$1,022,280</b>