

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF WESTERN FLEMING)
COUNTY WATER DISTRICT FOR RATE) CASE NO.
ADJUSTMENT FOR SMALL UTILITIES) 2014-00048
PURSUANT TO 807 KAR 5:076)

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of May 20, 2014, the attached report containing the findings of Commission Staff regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to paragraph 2 of the Commission's May 20, 2014 Order, Western Fleming County Water District is required to file written comments regarding the findings of Commission Staff no later than August 12, 2014.



Jeff DeGouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATED JUL 28 2014

cc: Parties of Record

STAFF REPORT
ON
WESTERN FLEMING COUNTY WATER DISTRICT
CASE NO. 2014-00048

On February 14, 2014,¹ Western Fleming County Water District (“Western Fleming District”), a water district organized pursuant to KRS Chapter 74, tendered an application with the Commission pursuant to 807 KAR 5:076 requesting to increase its wholesale water rate. Western Fleming District provides retail water service to approximately 1,446 customers in Fleming, Mason, Nicholas, and Robertson counties, Kentucky, and wholesale water service to Nicholas County Water District and Buffalo Trail Water Association.²

Western Fleming District proposed to increase its wholesale water rate from \$1.43 per 1,000 gallons to \$2.743 per 1,000 gallons, an increase of \$1.313, or 91.82 percent. Western District did not propose to increase its retail water rates. Western Fleming District provided financial exhibits with its Application in support of the requested increase that were based on the test year that ended December 31, 2012. Western Fleming District determined that these exhibits supported a revenue increase of \$298,738, or 32.92 percent. Western Fleming District's proposed wholesale rates produced the requested revenue increase.

Before its Application was considered accepted for filing by the Commission, Western Fleming District filed its 2013 Annual Report and amended its Application to

¹ On February 27, 2014, the Commission's Executive Director advised Western Fleming District that its Application was deficient pursuant to 807 KAR 5:001, Section 16. After several revisions and supplements to the Application, the Commission accepted Western Fleming District's application for filing on April 28, 2014.

² *Annual Report of Western Fleming County Water District to the Public Service Commission for the Calendar Year Ended December 31, 2013* (“2013 Annual Report”) at 5, 27, and 30.

use calendar year 2013 as its test year. These amended exhibits are shown in condensed form below and demonstrate that Western Fleming District's 2013 operations support a revenue increase of \$238,883, or 26 percent. However, Western Fleming District's requested wholesale water rate produces a revenue increase of \$298,120, or \$59,237 greater than the amount Western Fleming District calculated.

Overall Revenue Requirement and Required Revenue
Increase as Presented by Western Fleming District

Pro Forma Operating Expenses	\$	925,435
Plus: Average Annual Debt Payments		228,161
Overall Revenue Requirement		1,153,596
Less: Interest Income		(2,728)
Revenue Required from Rates		1,150,868
Less: Test-Year Revenues from Water Sales		(911,985)
Required Revenue Increase	\$	238,883
Percentage Increase		26.19%

Pro Forma Operating Statement
as Presented by Western Fleming District

		Test Year
Operating Revenues:		
Total Revenue from Water Sales	\$	911,985
Miscellaneous Service Revenues		10,612
Total Operating Revenues		922,597
Operating Expenses:		
Operation and Maintenance		657,795
Depreciation		266,707
Amortization		933
Operating Expenses		925,435
Utility Operating Income	\$	(2,838)

Commission Staff performed a limited financial review of Western Fleming District's operations for the test year that ended December 31, 2013. Staff performed its review with assistance from Western Fleming District's employees. The scope of Commission Staff's review was limited to determining whether operations reported for the test year were representative of normal operations. Known and measurable changes to test-year operations were identified and adjustments were made when their effects were deemed to be material. Insignificant or immaterial discrepancies were not pursued and were not addressed.

Commission Staff's findings are summarized in this report. Mark Frost reviewed the calculation of Western Fleming District's overall revenue requirement. Eddie Beavers reviewed revenues and rate design.

Summary of Findings

1) Overall Revenue Requirement and Required Revenue Increase. By applying the Debt Service Coverage ("DSC") method, as generally accepted by this Commission, Commission Staff found Western Fleming District's Overall Revenue Requirement to be \$1,211,292 and that a revenue increase of \$290,074, or 32.43 percent, above pro forma present rate revenues is necessary to generate the Overall Revenue Requirement.

As discussed below, by applying the cost-of-service principles that have been historically accepted by this Commission, Western Fleming's wholesale water rate would increase from \$1.43 per 1,000 gallons to \$1.63 per 1,000 gallons. This increase in the wholesale rate will produce an increase of \$45,411, or 15.65 percent of Commission Staff's recommended revenue increase of \$290,074. If Western Fleming District wishes to implement the retail water rates in Attachment E that will produce the

remaining \$244,663 of Commission Staff's recommended revenue increase, then Western Fleming District should either amend its application or submit a new application requesting those rates. If Western Fleming District amends its current application, it should be required to publish customer notification of the increased retail rates.

2) Water Sales and Cost-of-Service Study. As previously noted, Western Fleming District proposes an increase in its wholesale water rate of 91.8 percent, but did not propose an increase to its retail rates. Western Fleming District performed a cost-of-service study for its wholesale operation and wholesale rate only. This cost-of-service study did not address its retail customer operation or retail rates and was performed using 2010 as the test year. Commission Staff does not believe that Western Fleming District's cost-of-service study benefits its entire operations by solely targeting the wholesale customer. Western Fleming District should have completed a cost-of-service study on its entire operations.

In Case No. 2007-00332, Western Fleming District filed a cost-of-service study for its retail rates.³ In that case, Western Fleming District did not propose to increase the wholesale rate; instead, it simply requested to alter the method of charging one of its wholesale customers. In Case No. 2007-00332, Commission Staff performed a cost-of-service study for the retail operations but did not conduct a cost-of-service study for wholesale operations. In its Final Order, the Commission agreed with Western Fleming District's proposal of changing the method of charging one wholesale customer from the retail rate structure to a per-1,000-gallon flat rate.⁴

³ Case No. 2007-00332, *Application of Western Fleming County Water District for a General Rate Adjustment, for an Increase in Non-recurring Charges, and for Revisions to its Tariff Pursuant to the Provisions of KRS 278.030, 278.0152, 807 KAR 5:001 and 807 KAR 5:011* (Ky. PSC June 18, 2008).

⁴ *Id.*

In the current case, Commission Staff has performed a cost-of-service study for the entire operations of Western Fleming District, appended as Attachment C. The cost-of-service study analyzed the utility's expenses and allocated these expenses according to three classifications for its retail operations: (1) Supply and Treatment (Commodity); (2) Transmission and Distribution (Demand); and (3) Customer. The Commodity costs are those directly associated with the cost of water. Demand costs are those associated with providing the facilities to meet the peak demands placed on the system. Customer costs are those incurred to serve customers and are fixed costs that do not vary with customer usage.

The Allocation of Operation and Maintenance Expense sheet, page 6 of Attachment C, for the retail operations of the cost-of-service study shows the allocation of Operation and Maintenance expenses to the functional cost components. Commission Staff utilized information obtained through the utility's application, its 2013 Annual Report, and field reviews to allocate these costs. Administrative and general expenses are allocated to the cost components based on the subtotal allocated percentages.

The wholesale operations were allocated based upon factors as calculated in the Wholesale Allocations Factors at page 3 of Attachment C. Typically, Commission Staff would utilize the inch mile method to develop these factors. However, Western Fleming District informed Commission Staff during its field review that the transmission lines to the wholesale customers begin within a few feet of the water treatment plant and, therefore, there are zero miles of main to utilize because the lines are owned by the wholesale customers and not Western Fleming District.

Therefore, after review and evaluation, Commission Staff utilized only a portion of the information available to calculate factors used in allocating costs to the wholesale customer. The factors that were calculated and used were the Wholesale Production Factor and the Customer Allocation Factor. The Wholesale Production Factor was used to allocate expenses related to the production of water for the wholesale customers and the Customer Allocation Factor was used to allocate Customer and General and Administrative Costs to the wholesale customers.

The rates set forth in Attachment E to this report are based upon the cost-of-service study and will produce revenues from water sales of at least \$1,184,441 from water sales of both the retail and wholesale customers. Attached to this report as Attachment D is the billing analysis, with rates developed by the cost-of-service study performed by Commission Staff.

3) Depreciable Lives. Staff finds that the depreciable lives for certain assets should be changed for ratemaking purposes and that these lives should be used for accounting purposes in all future reporting periods. These recommended depreciable lives better match the expectancy of Western Fleming District's assets than the lives assigned by Western Fleming District. Commission Staff further finds that no adjustment to accumulated depreciation and retained earnings in this proceeding should be made to account for the retroactive effect of this recommended change in accounting estimate. A summary of Commission Staff's review of the lives is found at Attachment A of this report.

4) Certificate of Public Convenience and Necessity ("Certificate"). By its letter dated May 4, 2009, the Division of Water of the Kentucky Energy and Environment Cabinet ("DOW") approved the plans and specifications submitted by

Western Fleming District to construct: (1) a new raw water intake and pumping structure; (2) two new two-stage flocculation chambers; (3) two new sedimentation basins; (4) renovation of two existing filters; and (5) installation of a new gaseous chlorine feed system. An additional DOW approval was issued on October 6, 2011, to allow Western Fleming to construct two solids lagoons and a 12-inch connecting gravity line. To fund its construction projects, Western Fleming District entered into a Loan Assistance Agreement with the Kentucky Infrastructure Authority ("KIA") to borrow \$2,518,000 and also used a House Bill 380 Grant of \$50,000.⁵

KRS 278.020(1) requires a utility to obtain from the Commission a Certificate prior to beginning the construction of any facilities not considered an ordinary extension constructed in the usual course of business. According to KRS 278.300, no utility shall issue any form of indebtedness unless it has been authorized to do so by an Order of the Commission.⁶ Commission Staff requested Western Fleming District to identify the Commission proceeding in which Western Fleming District was granted a Certificate to construct its project or to provide a copy of a Commission Staff Opinion letter informing Western Fleming District that the project did not require a Certificate. Commission Staff also asked Western Fleming District to identify the Commission proceeding granting Western Fleming District authorization to enter into the KIA loan.

Commission Staff made initial contact with a representative of Western Fleming District to schedule its field review. In this telephone call, Western Fleming District informed Commission Staff that it was under the impression that its consulting engineer

⁵ October 1, 2009, KIA Assistance Agreement, Fund F, Project Number F08-01, Western Fleming District, Exhibit A, Project Specifics.

⁶ This requirement does not apply to notes or loans with a two-year term. Those notes or loans can be renewed up to two times for a combined term that does not exceed six years. Western Fleming District's amortization schedule is for a 30-year term.

had obtained all of the required approvals for the construction project and the KIA loan. Robert J. Sturdivant, Marketing Manager/Funding Specialist for HDR, Western Fleming District's consulting engineer, confirmed that Western Fleming District had not obtained a Certificate for its construction, nor did it have Commission authority to enter into the KIA loan.

Western Fleming District has the responsibility to ensure that it and any of its consultants follow the Commission's statutes and regulations and that all statutory and regulatory approvals are obtained. Western Fleming District should be aware that the Commission may initiate a separate proceeding to more thoroughly investigate the possible violations of Commission statutes and regulations. If there is a determination made that there has been a willful violation of any provision of KRS Chapter 278 and 807 KAR Chapter, the members of the Board of Commissioners may be held accountable.⁷

Pro Forma Operating Statement

For the test year, Western Fleming District reported actual operating revenues and expenses of \$922,597 and \$925,435, respectively.⁸ Western Fleming District did not propose any pro forma adjustments to its test-year operating revenues or expenses. Discussion of Commission Staff's pro forma adjustments follows, and Commission Staff's Pro Forma Income Statement is in the table below.

⁷ KRS 278.990 (1), Any officer, agent, or employee of a utility, as defined in KRS 278.010, and any other person who willfully violates any of the provisions of this chapter or any regulation promulgated pursuant to this chapter, or fails to obey any order of the commission from which all rights of appeal have been exhausted, or who procures, aids, or abets a violation by any utility, shall be subject to either a civil penalty to be assessed by the commission not to exceed two thousand five hundred dollars (\$2,500) for each offense or a criminal penalty of imprisonment for not more than six (6) months, or both.

⁸ *2013 Annual Report* at 11.

Commission Staff Pro Forma Income Statement

	2013 Annual Report	Reclassification Adjustments	Adj. Ref.	Reclassified Operations	Pro Forma Adjustments	Adj. Ref.	Pro Forma Operations
Operating Revenues:							
Revenues from Water Sales:							
Retail Water Sales	\$ 568,002	\$ 9,255	A-1	\$ 577,257	\$ (7,574)	B	\$ 569,683
Sales for Resale	319,328	5,339	A-2	324,667	17	B	324,684
Total Revenue from Water Sales	887,330	14,594		901,924	(7,557)		894,367
Other Water Revenues:							
Miscellaneous Service Revenues	15,525	(2,014)	A-3	13,511	0		13,511
Other Water Revenues (Late Charges)	19,742	(9,130)	A-4	10,612	0		10,612
Total Operating Revenues	922,597	3,450		926,047	(7,557)		918,490
Operating Expenses:							
Operation & Maintenance:							
Salaries & Wages - Employees	171,542			171,542	(5,898)	C	165,644
Salaries & Wages - Commissioners	10,800	1,534	A-5	12,334	(334)	D	12,000
Employee Pension & Benefits	32,970	39,335	A-6	72,305	(11,636)	E	60,669
Purchased Water	62,124			62,124	5,766	F	67,890
Purchased Power	103,473			103,473	10,307	G	113,780
Chemicals	103,034			103,034			103,034
Materials & Supplies	33,907			33,907	(4,460)	H	29,447
Contractual Services - Accounting	6,300			6,300			6,300
Contractual Services - Legal	2,100			2,100			2,100
Contractual Services - Other	41,531			41,531	(16,799)	I	24,732
Insurance - Gen. Liability	17,012			17,012			17,012
Insurance - Workers' Compensation	3,468			3,468			3,468
Insurance - Other	39,335	(39,335)	A-7	0			0
Miscellaneous	18,648	(1,534)	A-8	17,114	(2,000)	J	15,114
Total Operation & Maintenance	646,244	0		646,244	(25,054)		621,190
Depreciation	266,707			266,707	21,689	K	288,396
Taxes Other Than Income	12,484			12,484	(451)	L	12,033
Utility Operating Expenses	925,435	0		925,435	(3,816)		921,619
Net Utility Operating Income	(2,838)	3,450		612	(3,741)		(3,129)
Other Income & Deductions:							
Interest Income	2,728			2,728			2,728
Non-Utility Income	11,250	(3,450)	A-9	7,800	(7,800)	M	0
Net Income Available for Debt Service	\$ 11,140	\$ 0		\$ 11,140	\$ (11,541)		\$ (401)

Commission Staff Pro Forma Adjustments

A. Operating Revenue and Expense Reclassifications. Upon review of Western Fleming District's 2013 General Ledger, Commission Staff determined that numerous revenues and expenses were misclassified. The incorrect classification of a revenue or expense will not affect the overall determination of Western Fleming District's revenue requirement. However, the reclassification of these items will assist Commission Staff in calculating other pro forma expense adjustments and in completing its cost-of-service study. The other pro forma adjustments and Cost-of-Service study are addressed elsewhere in this report.

Commission Staff Reclassification Adjustments		
Ref	Adjustment Accounts & Descriptions	Adjustment
	Reclassify - Bill Adjustments	(6,925)
	Reclassify - Tap-on Fee and Connection Fee Adjustment	7,050
	Reclassify - Water Sales to Public Authorities	9,130
A-1	Retail Water Sales	<u>9,255</u>
A-2	Sales for Resale: Reclassify - Bill Adjustments & Bad Check Fees	<u>5,339</u>
	Reclassify - Bad Check Fee	1,586
	Reclassify - Tap-on Fee and Connection Fee Adjustment	(7,050)
	Reclassify - Connection Charges	3,450
A-3	Miscellaneous Service Revenues	<u>(2,014)</u>
A-4	Other Water Revenue: Reclassify - Water Sales to Public Authorities	<u>(9,130)</u>
A-5	Salaries & Wages - Commissioners: Reclassify - Commissioner Fees	<u>1,534</u>
A-6	Employee Pension & Benefits: Reclassify - Employee Health Insurance	<u>39,335</u>
A-7	Insurance - Other: Reclassify - Employee Health Insurance	<u>(39,335)</u>
A-8	Miscellaneous: Reclassify - Commissioner Fees	<u>(1,534)</u>
A-9	Non-Utility Income: Reclassify - Connection Fees	<u>(3,450)</u>

B. Water Sales Normalization. Western Fleming District provided a billing analysis with its application using a test year of 2012. As previously discussed, Western Fleming District amended its Application to use a 2013 test year. Additionally, it asked for Commission Staff assistance in compiling a billing analysis, as the billing analysis provided in its application contained errors in its retail customers' portion. During its Field Review, Commission Staff requested information to assist in the billing analysis. Attachment B to this report contains the current-rates billing analysis performed by Staff from information provided by Western Fleming District. Water Sales normalized revenue from retail and wholesale water sales total \$894,367.

As shown in the billing analysis in Attachment B, Western Fleming District currently has several meters that each serve numerous customers. Prior to February 22, 2002, Western Fleming District allowed this type of connection. On that date, Western Fleming District's Board of Commissioners adopted a rule requiring one customer per meter. However, Western Fleming District allowed any existing multi-customer connections to continue being served. Further, the rule states how the multiple users are to be charged.⁹ The Commission encourages one customer per meter, and Commission Staff encourages Western Fleming District to continue to move all of its customers toward one customer per meter.

C. Salaries and Wages – Employees. Western Fleming District reported a test-year level of Salaries and Wages – Employee expense of \$171,452. In the test year, each of Western Fleming District's five employees was paid a salary. In 2014,

⁹ Western Fleming County Water District's Tariff, P.S.C. KY. No. 1, Sheet No. 14, effective May 1, 2002.

Western Fleming District replaced its two full-time plant operators¹⁰ and hired a part-time employee¹¹ to assist with meter reading. The two full-time and one part-time employee hired in 2014 are paid by the hour.

In 2013, Western Fleming District installed 13 new meters and replaced 189 existing meters. It takes approximately 4.5 hours to install a new meter and a half-hour to replace an existing meter. Western Fleming District correctly capitalized the cost of its new meters, but failed to capitalize the associated labor costs.

Using the current staff level, the 2014 employee wages, and removing the capitalized labor cost for meter installation, Commission Staff calculates a pro forma Salaries and Wages - Employee expense of \$165,644, a decrease of \$5,898.

D. Salaries and Wages – Commissioners. Western Fleming District reported paying its Commissioners \$12,334 in the test year. Western Fleming District currently has five Commissioners on its Board and pays \$200 per month to each commissioner, for an annual total of \$12,000. Accordingly, Commission Staff is reducing Salaries and Wages – Commissioner expense by \$334 to reflect the actual level.

E. Employee Pensions and Benefits. Western Fleming District reports a test-period level of Employee Pensions and Benefits expense of \$72,305. The County Employees Retirement System (“CERS”) employer contribution rate that became effective on July 1, 2014 is 17.67 percent.¹² Using the current employee health insurance premiums, the July 1, 2014 CERS contribution rate, and removing the

¹⁰ The plant operators were hired June 23, 2014 and June 25, 2014.

¹¹ Per the minutes of the Board of Commissioners special meeting held Tuesday, July 1, 2014.

¹² <https://kyret.ky.gov/employers/Monthly%20Reporting/Pages/Contribution-Rates.aspx>

capitalized employee benefits, Commission Staff calculates a pro forma level of Employee Pensions and Benefits expense of \$60,669. Commission Staff is decreasing Employee Pensions and Benefits expense by \$11,636.

F. Purchased Water. In the test year, Western Fleming District reported Purchased Water expense of \$62,124. The Water Purchase Contract with the Greater Fleming County Regional Water Commission ("Greater Fleming Commission") dated November 19, 2003, has a 40-year term and requires a minimum purchase of 100,000 gallons per day. The current purchased water rate being charged by the Greater Fleming Commission is \$1.86 per 1,000 gallons. Since Western Fleming District's monthly purchases never exceed the required monthly minimum purchase, Western Fleming District's effective monthly rate varied from \$2.35 per 1,000 gallons to \$6.41 per 1,000 gallons.

Using the minimum purchase requirement of 100,000 gallons per day and Greater Fleming Commission's current rate of \$1.86 per 1,000 gallons, Commission Staff calculates a pro forma Purchased Water expense of \$67,890, for an increase in Purchased Water expense of \$5,766.

G. Purchased Power. Western Fleming District reported a test-year Purchased Power expense of \$103,473. In reviewing the 2013 General Ledger, Commission Staff discovered that Western Fleming District had recorded only 11 months of electricity purchases. Commission Staff is increasing Purchased Power expense by \$10,307 to include the missing month.

H. Material and Supplies. Western Fleming District reported a test-year level of Materials and Supplies expense of \$33,907. In reviewing the test-year invoices,

Commission Staff discovered that Western Fleming District had incorrectly expensed the purchase of \$4,460 of meter setters. The purchase of meter setters is considered a capital expenditure that should be depreciated rather than recorded as an expense. Commission Staff is reducing Western Fleming District's Materials and Supplies expense by \$4,460. The depreciation of the meter setters is contained in section K below.

I. Contractual Services Other. Western Fleming District reported a test-year level of Contractual Services Other expense of \$41,531. Upon its review of the general ledger, Commission Staff found that during the test year, members of the Board of Commission and a maintenance employee read the customers' meters for Western Fleming District and were paid \$16,799. Upon receipt of a letter from the Commission, Western Fleming ceased the practice of paying members of the Board of Commissioners to read its meters.

In June 2013, Western Fleming District began paying its maintenance employee \$14 per hour to read meters as contract labor. However, the employee reads the meters during the hours that he is being compensated as an employee of Western Fleming District and the duties listed for his maintenance position includes meter reading. Commission Staff finds that under this arrangement the maintenance employee is being paid twice for those hours that are spent reading meters.

Accordingly, Commission Staff is reducing Contractual Services Other expense by \$16,799 to remove these expenditures.

J. Miscellaneous. Western Fleming District's test-year Miscellaneous expense is \$17,114. Included in that amount were payments of \$2,000 in penalties

assessed by the federal Occupational Safety & Health Administration (“OSHA”) for various violations of OSHA’s rules and regulations. It is Commission Staff’s opinion that a penalty paid for the violation of the appropriate regulatory guidelines should not be included in the calculation of Western Fleming District’s revenue requirement. Commission Staff removed the OSHA penalty of \$2,000 from Western Fleming District’s test-year operating expense.

K. Depreciation. Western Fleming District reported \$266,707 for test-year Depreciation expense. Commission Staff is proposing to increase the depreciation expense by \$21,689 to account for changes to the depreciable lives assigned to certain water assets, and to reflect depreciating the capital expenditures removed from operating expenses over their estimated useful lives. A summary of Staff’s review of the lives is found at Attachment A of this report. The following table is a detailed calculation of Staff’s Depreciation expense adjustment.

Commission Staff Depreciation Adjustment						
Description	Cost/Basis	Depreciation Lives		Depreciation Expense		
		District	Staff	Test-Year	Pro Forma	Adjustment
Tap-on (Services)	\$ 110,275	20	40.0	\$ 5,481	\$ 2,757	\$ (2,724)
True/Standpipe	1,003,695	75	40.0	13,383	25,092	11,709
Raw Water Intake	727,931	50	40.0	14,559	18,198	3,639
Treatment Plant	1,588,112	50	37.5	31,762	42,350	10,588
Lagoon	452,837	50	37.5	9,057	12,076	3,019
Meters	217,947	20	10.0	12,379	21,795	9,416
2007 Chevy Truck	24,811	10	7.0	2,481	3,544	1,063
Pumps	21,047	10	20.0	1,533	1,052	(481)
Fire Hydrants	4,456	10	50.0	446	89	(357)
Fencing	14,000	7	37.5	2,000	373	(1,627)
Plant	3,520,421	33	37.5	106,679	93,878	(12,801)
Office	43,408	33	37.5	1,315	1,158	(157)
Building Improvements	5,747	33	37.5	174	153	(21)
Capitalized Labor and Overheads	3,114		10.0		311	311
Services	4,460		40.0		112	112
Commission Staff Pro Forma Adjustment						\$ 21,689

Historically, the Commission has taken the position that it does not retroactively grant certificates to construction projects that have already been constructed.

However, once the utility has proven that the construction was required, the Commission typically allows the recovery of the cost through depreciation expense thereafter. Upon review of the construction in question and given that the project was approved by DOW, Commission Staff is including the recovery of depreciation on the un-certificated project. However, the Commission may initiate a separate proceeding to more thoroughly investigate the possible violations of Commission statutes and regulations.

L. Payroll Taxes. Western Fleming District reports a test-period Payroll Tax expense of \$12,484. Applying the current "FICA" rate of 7.65 percent to the pro forma decrease to Salaries and Wages – Employee expense of \$5,898, Commission Staff has determined that Payroll Tax expense should be decreased by \$451.

M. Non-operating Income. In reviewing the 2013 general ledger, Commission Staff determined that Western Fleming District had incorrectly reported \$7,800 of tap-on fees as income. Tap-on fees are a source of capital that should be excluded from revenues. The Uniform System of Accounts for Class A and B Water District and Associations requires tap-on fees to be recorded in Account No. 432 – Proceeds from Capital Contributions and that the balance in this account should be transferred at the end of the year to Account No. 215.2 – Donated Capital. To correct Western Fleming District's error, Commission Staff is reducing net income by \$7,800.

Overall Revenue Requirement and Required Revenue Increase

Commission Staff applied the DSC method as generally accepted by the Commission to calculate Western Fleming District's Overall Revenue Requirement. This method allows for recovery of: 1) cash-related pro forma operating expenses; 2)

recovery of depreciation expense, a non-cash item, to provide working capital;¹³ 3) the average annual principal and interest payments on all long-term debts; and 4) working capital that is in addition to depreciation expense. A comparison of Commission Staff's and Western Fleming District's calculation of its Overall Revenue Requirement and Required Revenue Increase is shown below.

<u>Overall Revenue Requirement and Required Revenue Increase</u>		
	<u>Western Fleming District</u>	<u>Commission Staff</u>
Pro Forma Operating Expenses	\$ 925,435	\$ 921,619
Plus: Average Annual Debt Payments	228,161	241,394
Debt Coverage Requirement	<u> </u>	<u>48,279</u>
Total Revenue Requirement	1,153,596	1,211,292
Less: Other Operating Revenue		(24,123)
Interest Income	<u>(2,728)</u>	<u>(2,728)</u>
Revenue Required from Rates	1,150,868	1,184,441
Less: Normalized Revenues from Water Sales	<u>(911,985)</u>	<u>(894,367)</u>
Required Revenue Increase/(Decrease)	<u>\$ 238,883</u>	<u>\$ 290,074</u>
Percentage Increase	<u>26.194%</u>	<u>32.433%</u>

(1) Average Principal and Interest Payments. Western Fleming District requested recovery of \$228,161 for principal and interest payments. Western Fleming District did not provide a calculation of the principal and interest payments requested.

¹³ The Kentucky Supreme Court has held that the Commission must permit a water district to recover its depreciation expense through its rates for service to provide internal funds to be used for renewing and replacing assets. See *Public Serv. Comm'n of Kentucky v. Dewitt Water Dist.*, 720 S.W.2d 725, 728 (Ky.1986). Although a water district's lenders require that a small portion of the depreciation funds be deposited annually into a debt reserve/depreciation fund until the account's balance accumulates to a required threshold, neither the Commission nor the Court requires that revenues collected for depreciation be accounted for separately from the water district's general funds or that depreciation funds be used only for asset renewal and replacement. The Commission has recognized that the working capital provided through recovery of depreciation expense may be used for purposes other than renewal and replacement of assets. See Case No. 2012-00309, *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Dec. 21, 2012).

Western Fleming District has six outstanding long-term debts: United States Department of Agriculture Rural Development ("RD") Waterworks Revenue Bonds, Series 1980; RD Waterworks Revenue Bonds, Series 1988; RD Waterworks Revenue Bonds, Series 1997; RD Waterworks Revenue Bonds, Series 2002; a 2004 Kentucky Rural Water Finance Corporation ("KRWA") loan and a KIA loan.

Following the Commission's past practice, Commission Staff included the three-year average of the bond principal and interest payments in the calculation of Western Fleming District's Overall Revenue Requirement. Staff calculated the average to be \$241,394, as shown in the table below.

Series	2014	2015	2016	Totals	3 Tear Avgs.
RD Series 1980	\$ 31,700.00	\$ 31,500.00	\$ 32,200.00	\$ 95,400.00	\$ 31,800.00
RD Series 1988	20,000.00	19,500.00	19,950.00	59,450.00	19,817.00
RD Series 1997	36,782.50	36,675.00	37,022.50	110,480.00	36,827.00
RD Series 2002	27,142.50	27,282.50	27,400.00	81,825.00	27,275.00
KRWA Series 2004	27,772.50	27,863.85	27,885.50	83,521.85	27,841.00
KIA Loan F08-01	97,834.00	97,834.00	97,834.00	293,502.00	97,834.00
Totals	<u>\$ 241,231.50</u>	<u>\$ 240,655.35</u>	<u>\$ 242,292.00</u>		<u>\$ 241,394.00</u>

(2) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for working capital that is in addition to the amount provided through recovery of Depreciation Expense. The additional working capital is set equal to the minimum net revenues required by Western Fleming District's lenders that are above its average annual debt payments.

As shown below, Commission Staff calculated Western Fleming District's allowance for additional working capital to be \$48,279. Commission Staff included this amount in the calculation of Western Fleming District's Overall Revenue Requirement. Western Fleming District did not include an allowance for additional working capital in its

calculation, recognizing that its inclusion is not necessary to meet its lender's DSC ratio requirements.¹⁴

Additional Working Capital	
Average Annual Debt Payments	\$ 241,394
Multiplied by: DSC Coverage Ratio	120%
Required net Revenues	289,673
Less: Average Annual Debt Service	(241,394)
Allowance for Additional Working Capital	\$ 48,279

¹⁴ The RD bond resolutions require Western Lewis District to assess rates for water service that produce net revenues that are equal to at least 120 percent of the average annual bond principal and interest payments. The DSC ratio measures an entity's ability to pay its cash related operating expenses and to pay debt principal and interest. RD calculates the ratio by dividing net revenues by the entity's average annual debt principal and interest payments. Net revenues are equal to total revenues less cash-related expenses. Depreciation expense, a noncash operating expense, is excluded from the determination of net revenues. As shown below, the required DSC Ratio is met with and without including the additional working capital in Western Lewis District's Overall Revenue Requirement.

	With Additional Working Capital	Without Additional Capital
Overall Revenue Requirement	\$ 1,211,292	\$ 1,163,013
Less: Operating and Maintenance Expense	(621,190)	(621,190)
Taxes Other Than Income (Payroll)	(12,033)	(12,033)
Net Revenues	578,069	529,790
Divided by: Average Debt Service	241,394	241,394
DSC Ratio	239.471%	219.471%

Signatures



Prepared by: Mark Frost
Financial Analyst, Water and Sewer
Revenue Requirements Branch
Division of Financial Analysis



Prepared by: Eddie Beavers
Rate Analyst, Water and Sewer
Rate Design Branch
Division of Financial Analysis

ATTACHMENT A
STAFF REPORT, CASE NO. 2014-00048

Engineering Division's
Analysis of Asset Service Lives

Historically, the Commission has relied on the National Association of Regulatory Utility Commissioners Study of Depreciation Practices for Small Water Utilities ("NARUC Study"), dated August 15, 1979, to evaluate the reasonableness of a utility's depreciation practices. This study outlines expected service life ranges for various asset groups designed, installed, and maintained in accordance with good water works practices. Typically, an adjustment is made when the Commission finds that a utility is proposing to use a service life that falls outside of this range while service lives falling within these ranges are generally accepted.

In the following table, Engineering staff has identified the account classifications for which the utility's current service lives are not consistent with the service lives contained in the NARUC Study. The table shows the utility's current and Engineering staff's recommended reasonable and appropriate service lives based on a review of information contained in the record of this case.¹⁶

Asset Classification	Current	Staff Recommended	NARUC Study
Tap-ons	20	40	30-50
Lagoons	50	37.5	35-40
Raw water intake	33	40	35-45
Water treatment plant	33	37.5	35-40
True Up PYS/Standpipe	75	40	30-60
Meters	20	10	35-45
2007 Chevy Truck	10	7	7
Pumps	10	20	20
Fire Hydrants	10	50	40-60
Fencing, Fencing at Water Plant	7,10	37.5	35-40
Office	33	37.5	35-40
Building Improvement	33	37.5	35-40


The utility requested that its meters be depreciated over a 20-year period. This service life falls outside the service life range contained in the NARUC Study. In order to justify residential meters' service lives outside the NARUC Study, the utility provided additional information to Commission Financial Analysis Staff in its field review showing

¹⁶ In its March 25, 2014 response to the filing deficiencies, the utility submitted its 2012 depreciation schedule for plant and other fixed assets. During its field review, Commission Financial Analysis Staff obtained additional information and updated the depreciation schedule that included 2013 utility plant additions.

that it uses a 10-year meter replacement program to ensure compliance with 807 KAR 5:066, Section 16(1). Based on this information, the residential meter service life of 10 years should be considered reasonable and appropriate.

Except for the meters asset group discussed above, absent any specific and verifiable evidence supporting alternative service lives, Engineering Staff finds that service lives based on the NARUC Study, as shown in the above table, should be considered reasonable and appropriate.

Prepared July 18, 2014



George W. Wakim, P.E.
Manager, Water and Sewer Branch

ATTACHMENT B
STAFF REPORT, CASE NO. 2014-00048

Commission Staff Billing Analysis Current Rates

Billing Analysis for: Western Fleming County Water District
Test Period From: January through December 2013
CURRENT RATES

Meter Size	Gallons Sold	Revenue	No. of Bills
5/8 inch	83,476,280	\$538,548	16,466
2 Customers on 1 Meter	3,551,440	22,299	373
3 Customers on 1 Meter	1,422,450	6,518	48
5 Customers on 1 Meter	178,020	1,207	12
6 Customers on 1 meter	132,730	1,111	12
Wholesale Customers	227,052,000	324,684	24
Totals	315,812,920	\$894,367	16,935

Meter Size: 5/8 inch

	USAGE	BILLS	GALLONS	FIRST 1,000	NEXT 6,000	NEXT 3,000	NEXT 10,000
FIRST	1,000	2,498	892,750	892,750			
NEXT	6,000	11,435	38,812,236	11,435,000	27,377,236		
NEXT	3,000	1,149	9,447,471	1,149,000	6,894,000	1,404,471	
NEXT	10,000	1,384	34,323,823	1,384,000	8,304,000	4,152,000	20,483,823
		16,466	83,476,280	14,860,750	42,575,236	5,556,471	20,483,823

REVENUE BY RATE INCREMENT

	BILLS	GALLONS	RATE	REVENUE
FIRST	1,000	14,860,750	\$11.36	\$187,054
NEXT	6,000	42,575,236	5.94	\$252,897
NEXT	3,000	5,556,471	5.10	\$28,338
NEXT	10,000	20,483,823	3.43	\$70,260
TOTAL	16,466	83,476,280		\$538,548

Meter Size: 2 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 2,000	NEXT 5,000	NEXT 3,000	OVER 10,000
FIRST	2,000	32	41,340	41,340			
NEXT	5,000	152	690,510	304,000	386,510		
NEXT	3,000	68	580,990	136,000	340,000	104,990	
OVER	10,000	121	2,238,600	242,000	605,000	363,000	1,028,600
		373	3,551,440	723,340	1,331,510	467,990	1,028,600

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	373	723,340	\$22.72	\$8,475
NEXT	5,000		1,331,510	5.94	\$7,909
NEXT	3,000		467,990	5.10	\$2,387
OVER	10,000		1,028,600	3.43	\$3,528
TOTAL		373	3,551,440		\$22,299

Meter Size: 3 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 3,000	NEXT 4,000	NEXT 3,000	OVER 10,000
FIRST	3,000	1	2,450	2,450			
NEXT	4,000	21	107,450	63,000	44,450		
NEXT	3,000	4	35,540	12,000	16,000	7,540	
OVER	10,000	22	1,277,010	66,000	88,000	66,000	1,057,010
		48	1,422,450	143,450	148,450	73,540	1,057,010

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	3,000	48	143,450	\$34.08	\$1,636
NEXT	4,000		148,450	5.94	\$882
NEXT	3,000		73,540	5.10	\$375
OVER	10,000		1,057,010	3.43	\$3,626
TOTAL		48	1,422,450		\$6,518

Meter Size: 5 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 5,000	NEXT 2,000	NEXT 3,000	OVER 10,000
FIRST	5,000	0	0	0			
NEXT	2,000	0	0	0	0		
NEXT	3,000	0	0	0	0	0	
OVER	10,000	12	178,020	60,000	24,000	36,000	58,020
		12	178,020	60,000	24,000	36,000	58,020

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	12	60,000	\$56.80	\$682
NEXT	2,000		24,000	5.94	\$143
NEXT	3,000		36,000	5.10	\$184
OVER	10,000		58,020	3.43	\$199
TOTAL		12	178,020		\$1,207

Meter Size: 6 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	6,000	1,000	3,000	10,000
FIRST	6,000	0	0	0			
NEXT	1,000	0	0	0	0		
NEXT	3,000	3	26,590	18,000	3,000	5,590	
OVER	10,000	9	106,140	54,000	9,000	27,000	16,140
		12	132,730	72,000	12,000	32,590	16,140

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	6,000	12	72,000	\$68.16	\$818
NEXT	1,000		12,000	5.94	\$71
NEXT	3,000		32,590	5.10	\$166
OVER	10,000		16,140	3.43	\$55
TOTAL		12	132,730		\$1,111

ATTACHMENT C
STAFF REPORT, CASE NO. 2014-00048

Commission Staff Cost-of-Service Study

Allocation of Plant Value							
	Total	Allocation Factor¹	Wholesale	Retail	Commodity	Demand	Customer
Land & Land Rights	\$118,797	0.0014	\$166	\$118,631		\$118,631	
Structures and Improvements	103,550	0.6649	68,850	34,700		34,700	
Water Treatment Equipment	1,327,906	0.6649	882,925	444,981		444,981	
Distribution Reservoirs & Standpipes	194,344			194,344		194,344	
Transmission & Distribution Mains	8,782,284			8,782,284		8,782,284	
Meters & Meter Installations	332,960						332,960
Subtotal	\$10,859,841		951,941	\$9,907,900		\$9,574,940	\$332,960
Office Furniture & Equipment	\$7,808	0.0014	\$23	\$7,785		\$7,543	\$265
Subtotal	\$7,808		\$23	\$7,785		\$7,543	\$265
Total	\$10,867,649		\$951,964	\$9,915,685		\$9,582,483	\$333,225
Wholesale Allocation Percentages			8.8%	91.2%			
Retail Allocation Percentages						96.6%	3.4%

Source: 2013 Annual Report

¹Allocation Factor (from Allocation Page 3) used to determine Wholesale Customer Share of Plant Value.

Allocation of Depreciation

	Total	Allocation Factors¹	WHOLESALE	RETAIL	Commodity	Demand	Customer
Structures & Improvements	\$1,654,494	0.6649	\$1,100,073	\$554,421		\$554,421	
Pumping Equipment	127,392	0.0014	178	127,214		127,214	
Power Generating Equipment	226			226		226	
Water Treatment Equipment	2,281	0.6649	1,517	764		764	
Dist. Reservoirs & Standpipes	189,837			189,837		189,837	
Transmission & Distribution Mains	1,775,364			1,775,364		1,775,364	
Meters	303,299			303,299			303,299
Subtotal	\$4,052,893		\$1,101,768	\$2,951,125		\$2,647,826	\$303,299
Office Furniture & Equipment	\$111,320	0.0014	\$156	\$111,164		\$99,714	\$11,450
Subtotal	\$111,320		\$156	\$111,164		\$99,714	\$11,450
Total	\$4,164,213		\$1,101,924	\$3,062,289		\$2,747,540	\$314,749
Wholesale Allocation Percentages			26.5%	73.5%			
Retail Allocation Percentages						89.7%	10.3%

Source: 2013 Annual Report

¹Allocation Factor (from Allocation Page 3) used to determine Wholesale Customer Share of Depreciation.

TOTAL WATER SOLD		
	GALLONS	Percent
Line Loss ¹	25,383,380	6.91%
Sales to Retail Customers ²	88,760,920	
Sales to Wholesale Customers ²	227,052,000	
Plant Use ¹	30,038,000	8.18%
Total Water Produced and Purchased ¹	367,358,000	
Total Water Sold ²	315,812,920	

Source: Information provided by Western Fleming¹
Staff Billing Analysis²

WHOLESALE ALLOCATION FACTORS		
		FACTOR
Line Loss Percentage		0.0691
Plant Use Percentage		0.0818
Allowable Line Loss & Plant Use	$0.0691 + 0.0818$	0.1509
Production Multiplier	$1/1 - 0.1509$	1.1777
Inch Mile Ratio		0.0000
Wholesale Share of Line Loss	$0.0691 * 0.0$	0.0000
Joint Share Line Loss/Plant Use	$0.000 + 0.0818$	0.0818
Wholesale Production Multiplier	$1/1 - 0.0818$	1.0891
Production Allocation Factor	$(227,052,000/315,812,920) * (1.0891/1.1777)$	0.6649
Pipeline Transmission Factor	$(227,052,000/315,812,920) * 0.0691$	0.0497
Customer Allocation Factor	2/1460	0.0014

Allocation of Operation & Maintenance Expense for Wholesale Customer				
	Total	Allocation Factor ³	Wholesale	Retail
Salaries:				
Meter Reading/Cust. Acct	\$39,849	0.0014	\$56	\$39,849
Trans/Dist.	12,213			12,213
Treatment/Supply	113,583	0.6649	75,521	38,062
Salaries & Wages-Officers	12,000	0.0014	17	11,983
Employee Pensions and Benefits				
Meter Reading/Cust. Acct	13,997	0.0000	0	13,997
Trans/Dist.	8,912			8,912
Treatment/Supply	37,760	0.6649	25,107	12,653
Purchased Water				
Purchased Power				
Meter Reading/Cust. Acct	1,900	0.0014	3	1,897
Trans/Dist.	13,085			13,085
Treatment/Supply	100,695	0.6649	66,952	33,743
Chemicals	103,034	0.6649	68,507	34,527
Materials and Supplies				
Meter Reading/Cust. Acct	8,574	0.0014	12	8,562
Trans/Dist.	3,084			3,084
Treatment/Supply	13,228	0.6649	8,795	4,433
Administrative & General	4,561	0.0000	0	4,561
Contract Services - Accounting	6,300	0.0014	9	6,291
Contract Services - Legal	2,100	0.0014	3	2,097
Contract Services - Other	24,732	0.0014	35	24,697
Insurance - General Liability	17,012	0.6649	11,311	5,701
Insurance - Workers Comp				
Meter Reading/Collection	836	0.0000	0	836
Trans/Dist.	510			510
Treatment/Supply	2,122	0.6649	1,411	711
Misc. Expense				
Meter Reading/Cust. Acct	1,572	0.0000	0	1,572
Trans/Dist.	2,419			2,419
Treatment/Supply	4,368	0.6649	2,904	1,464
Administrative & General	4,855	0.0000	0	4,855
Taxes other than Income				
Meter Reading/Cust. Acct	2,900	0.0000	0	2,900
Trans/Dist.	1,769			1,769
Treatment/Supply	7,364	0.6649	4,896	2,468
Total Operating Expenses	\$633,224		\$265,539	\$367,741
Depreciation ¹	288,396	0.0880	25,379	263,017
Debt Service ²	289,673	0.2650	76,763	212,910
TOTAL REVENUE REQUIRED	\$1,211,293		\$367,681	\$843,668

NOTES:

¹Wholesale Depreciation based on the Wholesale Allocation Percentage shown on Depreciation Allocation Sheet.

²Wholesale Debt Service based on percentage shown on Plant Value Allocation Sheet.

³Allocation Factor used to determine Wholesale Customer Share of O&M Expenses.

Whole Sale Rate = Wholesale Revenue Required/Sales to Wholesale Customers.	\$1.63
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Allocation of Operation & Maintenance Expense for Retail Customers				
	Total	Commodity	Demand	Customer
Salaries:				
Meter Reading/Collection	\$39,849			\$39,849
Trans/Dist.	12,213		\$12,213	
Treatment/Supply	38,062		38,062	
Employee Pensions & Benefits				
Meter Reading/Collection	13,997			13,997
Trans/Dist.	8,912		8,912	
Treatment/Supply	12,653		12,653	
Purchased Water	67,890	67,890		
Purchased Power	48,725		46,828	1,897
Chemicals	34,527	34,527		
Materials and Supplies	16,079		7,517	8,562
Workers Comp				
Meter Reading/Collection	836			836
Trans/Dist.	510		510	
Treatment/Supply	711		711	
Misc. Expense	5,455		3,883	1,572
Taxes other than Income				
Meter Reading/Collection	2,900			2,900
Trans/Dist.	1,769		1,769	
Treatment/Supply	2,468		2,468	
SUBTOTAL	307,556	103,323	137,981	69,613
Less Commodity	(103,323)			
Total used to calculate	\$204,233		\$135,526	\$69,613
Allocation Percentage	100%		66.4%	34.1%
Salaries & Wages-Officers	11,983		7,957	4,086
Contract Services - Accounting	6,291		4,177	2,145
Contract Services - Legal	2,097		1,392	715
Contract Services - Other	24,697		16,399	8,422
Insurance - General Liability	5,701		3,785	1,944
MISC -Admin & General	4,855		3,224	1,656
Materials & Supplies - Admin & General	4,561		3,029	1,555
Subtotal	60,185		39,963	20,523
Total Operating Expenses	\$367,741	\$103,323	\$175,489	\$90,136

Allocation of Cost of Service For Retail Customers				
	Total	Commodity	Demand	Customer
Operation & Maintenance	\$367,741	\$103,323	\$175,489	\$90,136
Debt Service ¹	212,910		205,671	7,239
Depreciation ²	263,017		235,926	27,091
General Water Service Cost	843,668	\$103,323	617,086	124,466
Less:				
Other Operating Revenue	(24,123)			(24,123)
Interest Income	(2,728)			(2,728)
Revenue Required from Rates for Retail Customers	\$816,817	\$103,323	\$617,086	\$97,615

NOTES:

¹Debt Service has been allocated on the Retail Allocation Percentage from the Plant Value Allocation sheet.

²Depreciation has been allocated on the Retail Allocation Percentage from the Depreciation Allocation.

Calculation of Water Rates					
RETAIL CUSTOMERS					
	Total	First 1,000 gallons	Next 6,000 gallons	Next 3,000 gallons	Over 10,000 gallons
Actual Water Sales:					
Thousand Gallons	88,760,920	15,302,530	44,648,206	6,166,591	22,643,593
Percent	100%	17.2%	50.3%	6.9%	25.5%
Weighted Sales for Demand:		2	1.67	1.33	1
Thousand Gallons	136,012,723	30,605,060	74,562,504	8,201,566	22,643,593
Percent	100%	22.5%	54.8%	6%	16.6%
Allocation of Volumetric Costs:					
Commodity	\$103,323	\$17,772	\$51,971	\$7,129	\$26,347
Demand	617,086	\$138,844	\$338,163	\$37,025	\$102,436
Customer	97,615	\$97,615			
Total	\$818,024	\$254,231	\$390,134	\$44,154	\$128,783
Number of Bills	16,935				
Cost of Service Rates		\$15.01	\$8.74	\$7.16	\$5.69

Comparison of Rates				
Gallon Usage	Current Rates	Cost of Service Rates	Increase	Percentage
1,000	\$11.36	\$15.01	\$3.65	32.1%
2,000	17.30	23.75	6.45	37.3%
3,000	23.24	32.49	9.25	39.8%
4,000	29.18	41.23	12.05	41.3%
5,000	35.12	49.97	14.85	42.3%
6,000	41.06	58.71	17.65	43.0%
7,000	47.00	67.45	20.45	43.5%
8,000	52.10	74.61	22.51	43.2%
9,000	57.20	81.77	24.57	43.0%
10,000	62.30	88.93	26.63	42.7%
15,000	80.05	117.38	37.33	46.6%
20,000	97.80	145.83	48.03	49.1%
25,000	115.55	174.28	58.73	50.8%
30,000	133.30	202.73	69.43	52.1%
35,000	151.05	231.18	80.13	53.0%
40,000	168.80	259.63	90.83	53.8%
50,000	204.30	316.53	112.23	54.9%
75,000	293.05	458.78	165.73	56.6%
100,000	381.80	601.03	219.23	57.4%
150,000	559.30	885.53	326.23	58.3%
200,000	736.80	1,170.03	433.23	58.8%
250,000	914.30	1,454.53	540.23	59.1%
500,000	1,801.80	2,877.03	1,075.23	59.7%
1,000,000	3,576.80	5,722.03	2,145.23	60.0%

Comparison of Rates		
Block Usage	Current Rates	Cost of Service Rates
First 1,000 gallons	\$11.36	\$15.01
Next 6,000 gallons	5.94	8.74
Next 3,000 gallons	5.10	7.16
Over 10,000 gallons	3.55	5.69

Effect on Customer Average Bill - 5,000 Gallons Usage			
Current Rates	Cost of Service Rates	Amount Increase	% Increase
\$35.12	\$49.97	\$14.85	42.30%

ATTACHMENT D
STAFF REPORT, CASE NO. 2014-00048

Commission Staff Billing Analysis Cost of Service Study Rates

Billing Analysis for: Western Fleming County Water District
Test Period From: January through December 2013
COST OF SERVICE RATES

Meter Size	Gallons Sold	Revenue	Bills
5/8 inch	83,476,280	\$775,600	16,466
2 Customers on 1 Meter	3,551,440	32,038	373
3 Customers on 1 Meter	1,422,450	10,000	48
5 Customers on 1 Meter	178,020	1,698	12
6 Customers on 1 meter	132,730	1,511	12
Wholesale Customers	227,052,000	370,095	24
Totals	315,812,920	\$1,190,942	16,935

Meter Size: 5/8 inch

	USAGE	BILLS	GALLONS	FIRST 1,000	NEXT 6,000	NEXT 3,000	NEXT 10,000
FIRST	1,000	2,498	892,750	892,750			
NEXT	6,000	11,435	38,812,236	11,435,000	27,377,236		
NEXT	3,000	1,149	9,447,471	1,149,000	6,894,000	1,404,471	
NEXT	10,000	1,384	34,323,823	1,384,000	8,304,000	4,152,000	20,483,823
		16,466	83,476,280	14,860,750	42,575,236	5,556,471	20,483,823

REVENUE BY RATE INCREMENT

	BILLS	GALLONS	RATE	REVENUE
FIRST	1,000	14,860,750	\$15.01	\$247,155
NEXT	6,000	42,575,236	8.74	\$372,108
NEXT	3,000	5,556,471	7.16	\$39,784
NEXT	10,000	20,483,823	5.69	\$116,553
TOTAL	16,466	83,476,280		\$775,600

Meter Size: 2 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 2,000	NEXT 5,000	NEXT 3,000	OVER 10,000
FIRST	2,000	32	41,340	41,340			
NEXT	5,000	152	690,510	304,000	386,510		
NEXT	3,000	68	580,990	136,000	340,000	104,990	
OVER	10,000	121	2,238,600	242,000	605,000	363,000	1,028,600
		373	3,551,440	723,340	1,331,510	467,990	1,028,600

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	373	723,340	\$30.02	\$11,197
NEXT	5,000		1,331,510	8.74	\$11,637
NEXT	3,000		467,990	7.16	\$3,351
OVER	10,000		1,028,600	5.69	\$5,853
TOTAL		373	3,551,440		\$32,038

Meter Size: 3 Customers one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 3,000	NEXT 4,000	NEXT 3,000	OVER 10,000
FIRST	3,000	1	2,450	2,450			
NEXT	4,000	21	107,450	63,000	44,450		
NEXT	3,000	4	35,540	12,000	16,000	7,540	
OVER	10,000	22	1,277,010	66,000	88,000	66,000	1,057,010
		48	1,422,450	143,450	148,450	73,540	1,057,010

REVENUE BY RATE INCREMENT

		BILLS	GALLONS	RATE	REVENUE
FIRST	3,000	48	143,450	\$45.03	\$2,161
NEXT	4,000		148,450	8.74	\$1,297
NEXT	3,000		73,540	7.16	\$527
OVER	10,000		1,057,010	5.69	\$6,014
TOTAL		48	1,422,450		\$10,000

Meter Size: 5 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 5,000	NEXT 2,000	NEXT 3,000	OVER 10,000
FIRST	5,000	0	0	0			
NEXT	2,000	0	0	0	0		
NEXT	3,000	0	0	0	0	0	
OVER	10,000	12	178,020	60,000	24,000	36,000	58,020
		12	178,020	60,000	24,000	36,000	58,020

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	12	60,000	\$75.05	\$901
NEXT	2,000		24,000	8.74	\$210
NEXT	3,000		36,000	7.16	\$258
OVER	10,000		58,020	5.69	\$330
TOTAL		12	178,020		\$1,698

Meter Size: 6 Customers on one 5/8" Meter

	USAGE	BILLS	GALLONS	FIRST 6,000	NEXT 1,000	NEXT 3,000	OVER 10,000
FIRST	6,000	0	0	0			
NEXT	1,000	0	0	0	0		
NEXT	3,000	3	26,590	18,000	3,000	5,590	
OVER	10,000	9	106,140	54,000	9,000	27,000	16,140
		12	132,730	72,000	12,000	32,590	16,140

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	6,000	12	72,000	\$90.06	\$1,081
NEXT	1,000		12,000	8.74	\$105
NEXT	3,000		32,590	7.16	\$233
OVER	10,000		16,140	5.69	\$92
TOTAL		12	132,730		\$1,511

ATTACHMENT E
STAFF REPORT, CASE NO. 2014-00048

Commission Staff's Proposed Rates

Monthly Water Rates

First	1,000 Gallons	\$ 15.01 Minimum Bill
Next	6,000 Gallons	8.74 per 1,000 Gallons
Next	3,000 Gallons	7.16 per 1,000 Gallons
All Over	10,000 Gallons	5.69 per 1,000 Gallons
Wholesale Water Customers		\$ 1.63 per 1,000 Gallons

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