

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

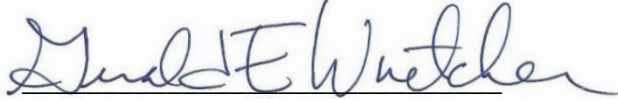
**ELECTRONIC APPLICATION OF GREEN)
RIVER VALLEY WATER DISTRICT)
PURSUANT TO KRS 278.023 AND 807 KAR)
5:069 FOR A CERTIFICATE OF PUBLIC)
CONVENIENCE TO EXPAND ITS WATER) CASE NO. 2019-00287
TREATMENT PLANT AND RELATED)
WATERWORKS IMPROVEMENTS, AN)
ADJUSTMENT OF ITS RATES FOR WATER)
SERVICE; AND AUTHORIZATION TO ISSUE)
CERTAIN SECURITIES)**

**RESPONSE OF GREEN RIVER VALLEY WATER DISTRICT
TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION**

Green River Valley submits its Response to Commission Staff's First Request for Information.

Dated: September 17, 2019

Respectfully submitted,



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Counsel for Green River Valley Water District

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Green River Valley Water District's electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on September 17, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that on or before September 19, 2019 this Response in paper medium will be delivered to the Public Service Commission.



Gerald E. Wretcher

COMMONWEALTH OF KENTUCKY

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RESPONSE OF

GREEN RIVER VALLEY WATER DISTRICT

TO

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

FILED: September 17, 2019

GREEN RIVER VALLEY WATER DISTRICT

**Response to Commission Staff's First Request for Information
Case No. 2019-00287**

Question No. 1

Responding Witness: David Paige

Q-1. As 807 KAR 5:069, Section 2(6)(c), provides, the proposed rates, if any, shall produce the total revenue requirements recommended in the engineering reports. Provide a copy of the billing analysis in PDF and Excel spreadsheet format showing revenue at current rates and at proposed rates based on actual and forecasted water usage for the existing system for a 12-month period as contained in the Kentucky Guide 7 Summary Addendum that was provided to the United States Department of Agriculture Rural Development (RD) as referenced in the Preliminary Engineering Report on page 17 (Revised April 2016) as part of the loan application. The copy provided in Excel spreadsheet format should have formulas intact and unprotected, and all rows and columns fully accessible.

A-1. The billing analysis supporting the rates recommended in the revised preliminary engineering report is found in the Summary Addendum to the Preliminary Engineering at pages 22-25. For a copy of Summary Addendum, see Exhibit 2A to Response to Question 2.

Because of an increase in the loan amount and because the original billing analysis had been rendered stale by the passage of time, Green River Valley Water District commissioned Kentucky Rural Water Association to perform a cost-of-service using the 12-month period ending June 30, 2018. A copy of this study is attached as Exhibit 2B to the Response to Question 2. As part of this study, a billing analysis was performed

Attached as Exhibit 1A to this Response is a billing analysis that shows the revenue the proposed rates will produce. This analysis uses usage information contained in the recent cost-of-service study. An electronic version of this billing analysis in Excel format is embedded in the electronic version of this Response. (The electronic version shows the revenues produced under several different scenarios.)

Because the proposed rates use different usage blocks than those in Green River Valley Water District's current rate schedule, a billing analysis based upon the 12-month period ending June 30, 2018 and using the current rates was not performed. (The current rate schedule has six usage blocks. The proposed rate schedule has only four usage blocks.)

EXHIBIT 1A

GRVWD - Billing Analysis

Water Usage for Year 2018

Total Project - \$11,625,000

Rates Proposed for 30:70 Grant Loan, January 2019

RESIDENTIAL WATER USE TABLE 5/8" x 3/4" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 20,000	Next 30,000
First 2,000	24,340	23,585.2	23,585.2			
Next 8,000	46,598	216,059.5	93,196.0	122,863.5		
Next 20,000	5,764	89,994.6	11,528.0	46,112.0	32,354.6	
Over 30,000	920	53,581.8	1,840.0	7,360.0	18,400.0	25,981.8
TOTALS	77,622	383,221.1	130,149.2	176,335.5	50,754.6	25,981.8

RESIDENTIAL REVENUE TABLE 5/8" x 3/4" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 2,000 gallons	77,622	130,149.2	\$22.10 Min. Bill	\$1,715,446
Next 8,000 gallons		176,335.5	5.95 per M Gal.	1,049,196
Next 20,000 gallons		50,754.6	4.85 per M Gal.	246,160
Over 30,000 gallons		25,981.8	3.85 per M Gal.	100,030
ANNUAL REVENUE				\$3,110,832

COMMERCIAL WATER USE TABLE 5/8" x 3/4" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 20,000	Next 30,000
First 2,000	1,325	646.8	646.8			
Next 8,000	684	3,543.1	1,368.0	2,175.1		
Next 20,000	209	3,569.8	418.0	1,672.0	1,479.8	
Over 30,000	72	5,526.6	144.0	576.0	1,440.0	3,366.6
TOTALS	2,290	13,286.3	2,576.8	4,423.1	2,919.8	3,366.6

COMMERCIAL REVENUE TABLE 5/8" x 3/4" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 2,000 gallons	2,290	2,576.8	\$22.10 Min. Bill	\$50,609
Next 8,000 gallons		4,423.1	\$5.95 per M Gal.	26,317
Next 20,000 gallons		2,919.8	\$4.85 per M Gal.	14,161
Over 30,000 gallons		3,366.6	\$3.85 per M Gal.	12,961
ANNUAL REVENUE				\$104,049

GRVWD - Billing Analysis

Water Usage for Year 2018

Total Project - \$11,625,000

Rates Proposed for 30:70 Grant Loan, January 2019

RESIDENTIAL WATER USE TABLE 1" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 5,000	Next 5,000	Next 20,000	Next 30,000
First 5,000	363	871.8	871.8			
Next 5,000	182	1,350.3	910.0	440.3		
Next 20,000	173	3,276.1	865.0	865.0	1,546.1	
Over 30,000	97	10,819.3	485.0	485.0	1,940.0	7,909.3
TOTALS	815	16,317.5	3,131.8	1,790.3	3,486.1	7,909.3

RESIDENTIAL REVENUE TABLE 1" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 5,000 gallons	815	3,131.8	\$39.95 Min. Bill	\$32,559
Next 5,000 gallons		1,790.3	5.95 per M Gal.	10,652
Next 20,000 gallons		3,486.1	4.85 per M Gal.	16,908
Over 30,000 gallons		7,909.3	3.85 per M Gal.	30,451
ANNUAL REVENUE				\$90,570

COMMERCIAL WATER USE TABLE 1" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 5,000	Next 5,000	Next 20,000	Next 30,000
First 5,000	241	398.6	398.6			
Next 5,000	48	359.4	240.0	119.4		
Next 20,000	69	1,281.6	345.0	345.0	591.6	
Over 30,000	128	14,522.1	640.0	640.0	2,560.0	10,682.1
TOTALS	486	16,561.7	1,623.6	1,104.4	3,151.6	10,682.1

16561.7

COMMERCIAL REVENUE TABLE 1" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 5,000 gallons	486	1,623.6	\$39.95 Min. Bill	\$19,416
Next 5,000 gallons		1,104.4	\$5.95 per M Gal.	6,571
Next 20,000 gallons		3,151.6	\$4.85 per M Gal.	15,285
Over 30,000 gallons		10,682.1	\$3.85 per M Gal.	41,126
ANNUAL REVENUE				\$82,398

GRVWD - Billing Analysis

Water Usage for Year 2018

Total Project - \$11,625,000

Rates Proposed for 30:70 Grant Loan, January 2019

RESIDENTIAL WATER USE TABLE 2" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 15,000	Next 15,000	Next 30,000	Next 0
First 15,000	7	13.5	13.5			
Next 15,000	4	96.0	60.0	36.0		
Over 30,000	20	1,215.9	300.0	300.0	615.9	
TOTALS	31	1,325.4	373.5	336.0	615.9	0.0

RESIDENTIAL REVENUE TABLE 2" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 15,000 gallons	31	373.5	\$93.95 Min. Bill	\$2,912
Next 15,000 gallons		336.0	4.85 per M Gal.	1,630
Over 30,000 gallons		615.9	3.85 per M Gal.	2,371
ANNUAL REVENUE				\$6,913

COMMERCIAL WATER USE TABLE 2" METER

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 15,000	Next 15,000	Next 30,000	Next 0
First 15,000	99	443.2	443.2			
Next 15,000	41	965.4	615.0	350.4		
Over 30,000	165	22,671.4	2,475.0	2,475.0	17,721.4	
TOTALS	305	24,080.0	3,533.2	2,825.4	17,721.4	0.0

COMMERCIAL REVENUE TABLE 2" METER

Water Use	No. Bills	M Gallons	KRWA Proposed	Revenue
First 15,000 gallons	305	3,533.2	\$93.95 Min. Bill	\$28,655
Next 15,000 gallons		2,825.4	\$4.85 per M Gal.	13,703
Over 30,000 gallons		17,721.4	\$3.85 per M Gal.	68,227
ANNUAL REVENUE				\$110,585

GRVWD - Billing Analysis

Water Usage for Year 2018

Total Project - \$11,625,000

Rates Proposed for 30:70 Grant Loan, January 2019

WHOLESALE CUSTOMERS REVENUE TABLE

Water Utility	Water Use (M Gal.)	KRWA (\$/M Gal.)	Revenue
City of Horse Cave	270,470	\$2.59	\$700,516
Caveland Environmental Authority-Cave City	119,374	2.59	309,178
City of Munfordville	99,481	2.59	257,657
Larue County Water District	92,237	2.59	238,894
City of Bonnieville	17,134	2.59	\$44,377
Green-Taylor Water District	60,419	2.59	156,486
CEA-Mammoth Cave	11,643	2.59	30,155
ANNUAL REVENUE	670,757.9		\$1,737,263

Billing Analysis Summary

Customer Type	Bills	M Gallons	Sales
Retail, Residential	93,970.5	400,864.0	\$3,208,315
Retail, Commercial	3,081	53,928.0	\$297,032
Wholesale	84	670,757.9	\$1,737,263
Totals	3,165	724,685.9	\$5,242,611

Revenue From Existing Rates \$4,234,812

Additional Revenue \$1,007,799

GREEN RIVER VALLEY WATER DISTRICT

**Response to Commission Staff's First Request for Information
Case No. 2019-00287**

Question No. 2

Responding Witness: David Paige

Q-2. Provide a copy of the Kentucky Guide 7 Summary Addendum that Green River Valley District provided to RD as part of the loan application.

A-2. A copy of the Addendum is attached as Exhibit 2A. Because of an increase in the loan amount and because the original study had been rendered stale by the passage of time, Green River Valley Water District commissioned Kentucky Rural Water Association to perform a cost-of-service using the 12-month period ending June 30, 2018. A copy of this study is attached as Exhibit 2B. This study was submitted to Rural Development in early 2019.

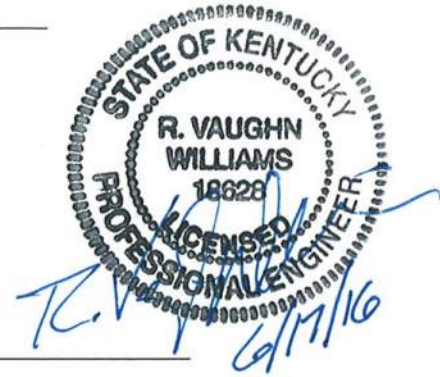
EXHIBIT 2A

SUMMARY ADDENDUM
TO
PRELIMINARY ENGINEERING REPORT

DATED June 8, 2016 (Revised June 17, 2016)

FOR

Green River Valley Water District
Water Treatment Plant Expansion
(NAME OF PROJECT)



APPLICANT CONTACT PERSON David Paige, Manager

APPLICANT PHONE NUMBER (270) 773-2135

APPLICANT TAX IDENTIFICATION NUMBER (TIN) 61 - 605759

ITEMS IN BOLD ITALIC PRINT ARE APPLICABLE TO SEWER SYSTEMS.

In order to avoid unnecessary delays in application processing, the applicant and its consulting engineer should prepare a summary of the preliminary report in accordance with this Guide.

Please complete the applicable sections of the Summary Addendum. ***Please note, if water and sewer revenue will both be taken as security for the loan, all user information and characteristics of both utility systems will be needed even though the project will benefit only one utility.***

Feasibility reviews and grant determinations may be processed more accurately and more rapidly if the Summary/Addendum is submitted simultaneously with the preliminary engineering report, or as soon thereafter as possible.

I. GENERAL

- A. Proposed Project: Provide a brief description of the proposed project. In addition to this summary, the applicant/engineer should submit a project map of the service area.

The proposed project will consist of improvements to the existing raw water intake on Green River, a secondary raw water pump station, new Chlorine Building and feed equipment, two (2) new two-staged flocculation basins and two (2) sedimentation basins, two (2) new filters, and a new 1,200,000 gallon clearwell. There will also be yard piping improvements, as well as refurbishing the existing laboratory and operator area.

The proposed project also includes the addition of Variable Frequency Drives (VFD) and controls to the existing raw water and high service pumps. The new VFDs will allow the pumps to be efficiently paced to meet the Water Treatment Plant (WTP) demand and minimize the amount of power consumed.

Data contained herein was obtained from the District's Financial Statement, July 1, 2014 to June 30, 2015.

II. **FACILITY CHARACTERISTICS OF EXISTING SEWER SYSTEM – N/A**

A. *Sewage Treatment:*

1. *Type* _____

2. *Method of Sludge Disposal* _____

3. *Cost per 1,000 gallons is sewage treatment is contracted:*

\$ _____

4. *Date Constructed* _____

B. *Treatment Capacity of Sewage Treatment Plant* _____

C. *Type of Sewage Collector System (Describe)* _____

D. *Number and Capacity of Sewage Lift Stations* _____

E. Sewage Collection System:

Lineal Feet of Collection Lines, by size 6" _____ 8" _____
10" _____ 12" _____, *Larger* _____
Date(s) Constructed _____

F. Conditions of Existing System: Briefly describe the conditions and suitability for continued use of facility now owned by the applicant. Include any major renovation that will be needed within five to ten years.

III. FACILITY CHARACTERISTICS OF EXISTING WATER SYSTEM

- A. Water Source: Describe adequacy of source (quality and quantity). Include an explanation of raw water source, raw water intake structure, treatment plant capacity, and current level of production (WTP). Also describe the adequacy of Water Purchase Contract if applicable.

Green River Valley Water District owns and operates a water treatment plant and potable water distribution system in Hart, Barren, Green, Larue, and Metcalfe Counties, Kentucky. The capacity of the WTP is currently 6.0 MGD and was previously improved and expanded in 1979, 1995, 2003, and 2009. In July 2014, which was the month that exhibited the highest demand, the average daily demand was 4.3 MGD, or roughly 72% of the design capacity. GRVWD currently maintains approximately 760 miles of water lines ranging in size from 2" through 20", 13 storage tanks with a total combined storage volume of 3,457,000 gallons, and 17 booster pump stations.

The existing WTP implements a conventional treatment process and raw water is obtained from two independent sources. The first raw water intake is a concrete tower type located on Green River. The second is a gravity feed intake located at Rio Verde Spring. Green River can easily provide all the raw water needed by the Water District, but the quality is less pristine than that provided by Rio Verde Spring. The spring is a limited supply of raw water that can sustain a flow of roughly 3.5 MGD during dry periods.

If the applicant purchases water:

Seller(s);

1. N/A _____
2. _____
3. _____

Price/1,000 gallons:

1. N/A _____
2. _____
3. _____

Present Estimated Market Value of Existing System: \$ \$26,538,226 *

(Value of Total Assets is reported above. Total Net Position is \$13,349,639)*

B. Water Storage:

Type:	Ground Storage Tank	0	Elevated Tank	0
	Standpipe	13	Other	0
Number of Storage Structures		13		
Total Storage Volume Capacity		3,457,000 gallons		
Date Storage Tank(s) Constructed		1976, 1977, 1983, 1985, 1988, 2005, 2007, & 2010		

C. Water Distribution System:

Pipe Material	Ductile Iron, Asbestos Cement, & Polyvinyl Chloride			
Linear Feet of Pipe:	2" Diameter	76,560	3"	1,483,680
	4"	1,038,523	6"	714,173
	8"	199,056	10"	147,312
	12"	125,136	16"	102,062
	20"	5,280		
Date(s) Water Lines Constructed	1976, 1977, 1983, 1985, 1988, 2005, 2007, & 2010			
Number and Capacity of Pump Station(s)		17 booster pump stations ranging from 18 to 1,600 gpm.		

D. Condition of Existing Water System:

Briefly describe the condition and suitability for continued use of facility now owned by the applicant. Include any major renovation that will be needed within five to ten years.

The existing water distribution system is aging and considered to be in moderate condition. New distribution lines will need to be installed within ten years. The existing water treatment plant is designed to produce 6.0 million gallons per day (MGD), and is operating at near maximum capacity during high use period. The improvements proposed herein will expand the plant's capacity to 8.0 MGD, with minimal work needed in the future to increase the capacity to 10.0 MGD.

E. Percentage of Water Loss Existing System 11.8 %

IV. EXISTING LONG-TERM INDEBTEDNESS

A. List of Bonds and Notes:

<u>Date of Issue</u>	<u>Bond/Note Holder</u>	<u>Principal Balance</u>	<u>Payment Date</u>	<u>Bond Type</u> <u>Water/Sewer*</u>	<u>Amount on Deposit in Reserve Account</u>
1996 Issue	USDA-RD	\$ 758,000	Apr/Oct 1	100 %	%
1996 Issue	USDA-RD	\$ 468,000	Apr/Oct 1	100 %	%
1996 Issue	USDA-RD	\$ 185,000	Apr/Oct 1	100 %	%
2004 Issue	USDA-RD	\$ 4,438,000	Apr/Oct 1	100 %	%
2010 Issue	USDA-RD	\$ 2,986,500	Apr/Oct 1	100 %	%
2013 Issue	KRWFC	\$ 2,875,000	Jan/Jul 1	100 %	%
2014 Issue	KIA	\$ 1,175,000	Jun/Dec 1	100 %	%
Total Reserve Amount					\$517,200

*If a combined issue, show attributable portion to each system.

B. Principal and Interest Payments: (Begin with Next Fiscal Year Payment)

<u>Date of Issue</u>	<u>Bond/Note Holder</u>	<u>Payment Year 2015</u>		<u>Payment Year 2016</u>		<u>Payment Year 2017</u>	
		<u>Principal Payment</u>	<u>Interest Payment</u>	<u>Principal Payment</u>	<u>Interest Payment</u>	<u>Principal Payment</u>	<u>Interest Payment</u>
1996 Issue	USDA	\$23,000	\$34,110	\$24,000	\$33,030	\$25,000	\$31,905
1996 Issue	USDA	14,500	21,083	15,000	20,408	15,500	19,710
1996 Issue	USDA	5,500	8,303	5,500	8,055	5,500	7,808
2004 Issue	USDA	74,000	199,710	77,000	196,245	81,000	192,600
2010 Issue	USDA	55,500	68,237	57,000	66,983	58,000	65,696
2013 Issue	KRWFC	435,000	118,913	390,000	104,558	370,000	87,788
2014 Issue	KIA	0	17,725	27,282	4,406	54,871	8,505
Totals		607,500	468,081	595,782	433,685	609,871	414,012
Total P&I		\$1,075,581		\$1,029,467		\$1,023,883	

V. EXISTING SHORT-TERM INDEBTEDNESS – N/A

A. List of All Short Term Debts: (Do Not Show Any Debt Listed in Paragraph IV Above)

<u>Lender or Lesser</u>	<u>Date of Issue (Month & Year)</u>	<u>Principal Balance</u>	<u>Purpose (Water and/ or Sewer)</u>	<u>Payment Date</u>	<u>Principal & Interest Payment (P&I)</u>	<u>Date to Be Paid In Full</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

VI. LAND AND RIGHTS - EXISTING SYSTEM(S)

Number of Treatment Plant Sites:	Water	1	Sewer	N/A
Number of Storage Tank Sites:	Water	13	Sewer	“
Number of Pump Stations:	Water	17	Sewer	“
Total Acreage:	Water	120	Sewer	“
Purchase Price:	Water	\$ 376,348	Sewer	“

VII. NUMBER OF EXISTING USERS

	Water	Sewer
Residential (In Town)*		N/A
Residential (Out of Town)*	6,575	“
Non-Residential (In Town)		“
Non-Residential (Out of Town)	273	“
Total	6,848	“
Number to Total Potential Users Living in the Service Area		“

*Note: Residential Users: Classify by type of user regardless of quantity of water used. This classification should include those meters serving individual rural residence.

VIII. CURRENT WATER AND SEWER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION

<u>Meter Size</u>	<u>Water Connection Fee</u>	<u>Sewer Connection Fee</u>
5/8" x 3/4"	\$ 750.00	\$ N/A
Larger Meters	Actual Cost	\$

IX. SEWER RATES - EXISTING SYSTEM – N/A

Percentage of Water Bill _____ % *Minimum Charge* \$ _____
Other: (If Charge Not Based on Water Bill) _____

Date This Rate Went Into Effect _____

X. WATER RATES - EXISTING SYSTEM

Existing Rate Schedule:

Meter Size: 5/8" x 3/4"

First	<u>2,000</u>	Gallons @	<u>\$ 17.21</u>	Minimum bill.
Next	<u>8,000</u>	Gallons @	<u>\$ 4.71</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 3.93</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.39</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.06</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 2.96</u>	per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

Meter Size: 1"

First	<u>5,000</u>	Gallons @	<u>\$ 31.34</u>	Minimum bill.
Next	<u>5,000</u>	Gallons @	<u>\$ 4.71</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 3.93</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.39</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.06</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 2.96</u>	per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

Meter Size: 1.5"

First	<u>10,000</u>	Gallons @	<u>\$ 54.89</u>	Minimum bill.
Next	<u>10,000</u>	Gallons @	<u>\$ 3.93</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.39</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.06</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 2.96</u>	per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

Meter Size: 2"

First	<u>16,000</u>	Gallons @	<u>\$ 78.47</u>	Minimum bill.
Next	<u>4,000</u>	Gallons @	<u>\$ 3.93</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.39</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.06</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 2.96</u>	per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

Wholesale Rate.....\$2.14 per 1,000 Gallons.

XI. ANALYSIS OF ACTUAL SEWER USAGE - EXISTING SYSTEM - 12 MONTH PERIOD

For Period N/A to N/A .

*All
Meter
Sizes*

<i>Monthly Sewer Usage</i>	<i>Average</i>	<i>Residential</i>		<i>Non-Residential</i>	
		<i>No. of Users</i>	<i>Usage (1000)</i>	<i>No. of Users</i>	<i>Usage (1000)</i>
0 - 2,000 Gal.	1,000				
2,000 - 3,000 Gal.	2,500				
3,000 - 4,000 Gal.	3,500				
4,000 - 5,000 Gal.	4,500				
5,000 - 6,000 Gal.	5,500				
6,000 - 7,000 Gal.	6,500				
7,000 - 8,000 Gal.	7,500				
8,000 - 9,000 Gal.	8,500				
9,000 - 10,000 Gal.	9,500				
10,000 - 11,000 Gal.	10,500				
11,000 - 12,000 Gal.	11,500				
12,000 - 13,000 Gal.	12,500				
13,000 - 14,000 Gal.	13,500				
14,000 - 15,000 Gal.	14,500				
15,000 - 16,000 Gal.	15,500				
16,000 - 17,000 Gal.	16,500				
17,000 - 18,000 Gal.	17,500				
18,000 - 19,000 Gal.	18,500				
19,000 - 20,000 Gal.	19,500				
_____ Gal.					
_____ Gal.					
_____ Gal.					
	<i>Total</i>	()	()	()	()
	<i>Average Usage</i>		()		()

XII. ANALYSIS OF ACTUAL WATER USAGE - EXISTING SYSTEM - 12 MONTH PERIOD

For Period July 1, 2014 to June 30, 2015

All Meter Sizes

Monthly Water Usage		Average	Residential		Non-Residential	
Usage Bracket	Unit	Per Usage Bracket	No. of Users	Annual Usage (1,000)'s	No. of Users	Annual Usage (1,000)'s
0 - 2,000	Gallons	877	1,945	21,133.5	140	814.8
2,000 - 10,000	Gallons	4,659	4,096	228,731.0	66	3,981.2
10,000 - 20,000	Gallons	12,241	398	58,033.7	23	3,806.9
20,000 - 50,000	Gallons	29,725	112	37,196.3	22	10,602.0
50,000 - 100,000	Gallons	76,665	16	18,522.9	13	8,156.4
100,000 - Over	Gallons	298,526	8	17,281.3	9	43,618.1
		Subtotal	6,575	380,898.7	273	70,979.4

XIII. FACILITY CHARACTERISTICS OF PROPOSED SEWER SYSTEM – N/A

A. Sewage Treatment:

1. Type _____
2. Method of Sludge Disposal _____
3. Cost per 1,000 gallons if sewage treatment is contracted:
\$ _____

B. Treatment Capacity of Sewage Treatment Plant _____

C. Type of Sewage Collector System (Describe) _____

D. Number and Capacity of Sewage Lift Stations _____

E. Sewage Collection System:

Lineal Feet of Collector Lines, by size 6" _____ 8" _____
10" _____ 12" _____ , _____ Larger _____

XIV. LAND AND RIGHTS - PROPOSED SEWER SYSTEM – N/A

Number of Treatment Plant Sites _____
Number of Pump Sites _____
Number of Other Sites _____
Total Acreage _____
Purchase Price \$ _____

XV. FACILITY CHARACTERISTICS OF PROPOSED WATER SYSTEM

- A. Water Source: Describe adequacy of source (quality and quantity). Include an explanation of raw water source, raw water intake structure, treatment plant capacity, and current level of production (WTP). Also describe the adequacy of Water Purchase Contract if applicable.

Green River Valley Water District owns and operates a water treatment plant and potable water distribution system in Hart County, Kentucky. The capacity of the WTP is currently 6.0 MGD and was previously improved and expanded in 1979, 1995, 2003, and 2009. In July 2014, which was the month that exhibited the highest demand, the average daily demand was 4.3 MGD, or roughly 72% of the design capacity. GRVWD currently maintains approximately 760 miles of water lines ranging in size from 2" through 20", 13 storage tanks with a total combined storage volume of 3,457,000 gallons, and 17 booster pump stations.

The existing WTP implements a conventional treatment process and raw water is obtained from two independent sources. The first raw water intake is a concrete tower type located on Green River. The second is a gravity feed intake located at Rio Verde Spring. Green River can easily provide all the raw water needed by the Water District, but the quality is less pristine than that provided by Rio Verde Spring. The spring is a limited supply of raw water that can sustain a flow of roughly 3.5 MGD during dry periods.

Extensions into unserved areas and new customer additions are not included in this project.

B. Water Storage:

Type:	Ground Storage Tank	<u>Concrete Clearwell</u>	Elevated Tank	_____
	Standpipe	_____	Other	_____
Number of Storage Structures	<u>1 Proposed Clearwell</u>			
Total Storage Volume Capacity	<u>1,200,000 gallons</u>			

C. Water Distribution System:

Pipe Material	<u>Ductile Iron</u>			
Lineal Feet of Pipe:	2" Diameter	_____	3"	_____
	4"	_____	6"	_____
	8" 100	_____	10" 100	_____
	12"	_____	16" 500	_____
	20"	_____	24" 800	_____
Number and Capacity of Pump Station(s)	<u>Modify the existing high service pump stations for a combined capacity of 14.0 mgd</u>			

XVI. LAND AND RIGHTS - PROPOSED WATER SYSTEM

Number of Treatment Plant Sites	<u>1</u>
Number of Storage Tank Sites	<u>0</u>
Number of Pump Stations	<u>1</u>
Total Acreage	<u>0 (No additional land needed)</u>
Purchase Price	<u>\$ 0.00</u>

XVII. NUMBER OF NEW SEWER USERS – N/A

<i>Residential (In Town)*</i>	_____
<i>Residential (Out of Town)*</i>	_____
<i>Non-Residential (In Town)</i>	_____
<i>Non-Residential (Out of Town)</i>	_____
<i>Total</i>	_____
<i>Number to Total Potential Users Living in the Service Area</i>	_____

**Note: Residential Users: Classify by type of user regardless of quantity of water used. This classification should include those meters serving individual rural residences.*

XVIII. PROPOSED SEWER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION – N/A

<i>Meter Size</i>	<i>Connection Fee</i>
<u>5/8" x 3/4"</u>	<u>\$</u>
<u>1-Inch</u>	<u>\$</u>
<u>1-1/2 Inch</u>	<u>\$</u>
<u>2-Inch</u>	<u>\$</u>
<u>3-Inch</u>	<u>\$</u>
<u>4-Inch</u>	<u>\$</u>
<u>5-Inch</u>	<u>\$</u>
<u>6-Inch</u>	<u>\$</u>

XIX. NUMBER OF NEW WATER USERS

Residential (In Town)*	0
Residential (Out of Town)*	0
Non-Residential (In Town)	0
Non-Residential (Out of Town)	0
Total	0
Number to Total Potential Users Living in the Service Area	0

*Note: Residential Users: Classify by type of user regardless of quantity of water used. This classification should include those meters serving individual rural residences.

XX. PROPOSED WATER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION

<u>Meter Size</u>	<u>Connection Fee</u>
5/8" x 3/4"	\$ 750.00
<u>Larger Meters</u>	<u>\$ Actual Cost</u>

XXI. SEWER RATES – PROPOSED – N/A

A. Proposed Rate Schedule without RUS Grant:

Percentage of Water Bill _____ % Minimum Charge \$ N/A
 Other: (If Charge Not Based on Water Bill) _____

Proposed Rate Schedule: (Without RUS Grant)

<i>First</i>	_____	<i>Gallons @</i>	\$ _____	<i>Minimum.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>All Over</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>

The above proposed rate, without RUS grant, must be completed for each grant. If the applicant/engineer desires, there is no objection to recommending a proposed rate with an estimated RUS grant in the Table below. However, the preparer should remember that the Table (A) above must be completed prior to Table (B).

B. Recommended Rate Schedule with RUS Grant:

Percentage of Water Bill _____ % Minimum Charge \$ N/A
 Other: (If Charge Not Based on Water Bill) _____

Proposed Rate Schedule: (With RUS Grant)

<i>First</i>	_____	<i>Gallons @</i>	\$ _____	<i>Minimum.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>Next</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>
<i>All Over</i>	_____	<i>Gallons @</i>	\$ _____	<i>per 1,000 Gallons.</i>

If more than one rate, use additional sheets.

XXII. WATER RATES - PROPOSED

A. Proposed Rate Schedule Without RUS Grant: (8.5% Increase)

Meter Size: 5/8" x 3/4"

First	<u>2,000</u>	Gallons @	<u>\$ 18.68</u>	Minimum bill.
Next	<u>8,000</u>	Gallons @	<u>\$ 5.11</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.27</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.68</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.32</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.21</u>	per 1,000 Gallons.

Meter Size: 1"

First	<u>5,000</u>	Gallons @	<u>\$ 34.01</u>	Minimum bill.
Next	<u>5,000</u>	Gallons @	<u>\$ 5.11</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.27</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.68</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.32</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.21</u>	per 1,000 Gallons.

Meter Size: 1.5"

First	<u>10,000</u>	Gallons @	<u>\$ 59.56</u>	Minimum bill.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.27</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.68</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.32</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.21</u>	per 1,000 Gallons.

Meter Size: 2"

First	<u>16,000</u>	Gallons @	<u>\$ 85.18</u>	Minimum bill.
Next	<u>4,000</u>	Gallons @	<u>\$ 4.27</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.68</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.32</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.21</u>	per 1,000 Gallons.

Wholesale Rate (28.5% Increase)\$2.75 per 1,000 Gallons.

The above proposed rate, without RUS grant, must be completed for each grant. If the applicant/engineer desires, there is no objection to recommending a proposed rate with an estimated RUS grant in the Table below. However, the preparer should remember that the Table (A) above must be completed prior to Table (B).

B. Recommended Rate Schedule with RUS Grant: (9.7% Increase)

Meter Size: 5/8" x 3/4"

First	<u>2,000</u>	Gallons @	<u>\$ 18.88</u>	Minimum bill.
Next	<u>8,000</u>	Gallons @	<u>\$ 5.17</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.31</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.72</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.36</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.25</u>	per 1,000 Gallons.

Meter Size: 1"

First	<u>5,000</u>	Gallons @	<u>\$ 34.39</u>	Minimum bill.
Next	<u>5,000</u>	Gallons @	<u>\$ 5.17</u>	per 1,000 Gallons.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.31</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.72</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.36</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.25</u>	per 1,000 Gallons.

Meter Size: 1.5"

First	<u>10,000</u>	Gallons @	<u>\$ 60.24</u>	Minimum bill.
Next	<u>10,000</u>	Gallons @	<u>\$ 4.31</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.72</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.36</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.25</u>	per 1,000 Gallons.

Meter Size: 2"

First	<u>16,000</u>	Gallons @	<u>\$ 86.10</u>	Minimum bill.
Next	<u>4,000</u>	Gallons @	<u>\$ 4.31</u>	per 1,000 Gallons.
Next	<u>30,000</u>	Gallons @	<u>\$ 3.72</u>	per 1,000 Gallons.
Next	<u>50,000</u>	Gallons @	<u>\$ 3.36</u>	per 1,000 Gallons.
Over	<u>100,000</u>	Gallons @	<u>\$ 3.25</u>	per 1,000 Gallons.

Wholesale Rate (14.5% Increase)\$2.45 per 1,000 Gallons.

XXIII. FORECAST OF SEWER USAGE - INCOME - EXISTING SYSTEM - EXISTING USERS - N/A

Meter Size*	Monthly Sewer Usage	Average	Average Rate	Residential			Non-Residential		
				No. of Users**	Usage (1000)	Income	No. of Users	Usage (1000)	Income
	0 - 2,000	Gal.	1,000						
	2,000 - 3,000	Gal.	2,500						
	3,000 - 4,000	Gal.	3,500						
	4,000 - 5,000	Gal.	4,500						
	5,000 - 6,000	Gal.	5,500						
	6,000 - 7,000	Gal.	6,500						
5/8 x 3/4	7,000 - 8,000	Gal.	7,500						
Inch	8,000 - 9,000	Gal.	8,500						
	9,000 - 10,000	Gal.	9,500						
	10,000 - 11,000	Gal.	10,500						
	11,000 - 12,000	Gal.	11,500						
	12,000 - 13,000	Gal.	12,500						
	13,000 - 14,000	Gal.	13,500						
	14,000 - 15,000	Gal.	14,500						
	15,000 - 16,000	Gal.	15,500						
	16,000 - 17,000	Gal.	16,500						
	17,000 - 18,000	Gal.	17,500						
	18,000 - 19,000	Gal.	18,500						
	19,000 - 20,000	Gal.	19,500						
	-	Gal.							
	-	Gal.							
	-	Gal.							
	-	Gal.							
		Subtotal		()	()	()	()	()	()
		Average Monthly Rate	()						
		Average Monthly Usage		()			()		

* Breakdown of meter size usage is not required unless different sewer rates are charged based on size of water meter.

** Number of users should reflect the actual number of "meter settings".

MULTI-FAMILY AND APARTMENT USER ANALYSIS - N/A

If billed as a typical user, the information should be included in the residential information above. If not billed as a typical residential user, please explain below.

Name of Unit	Number of Units	Number of Meters	Revenue Calculations
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

XXIV. FORECAST OF SEWER USAGE - INCOME - NEW USERS - EXTENSION ONLY - N/A

Meter Size*	Monthly Sewer Usage	Average	Average Rate	Residential			Non-Residential		
				No. of Users**	Usage (1000)	Income	No. of Users	Usage (1000)	Income
	0 - 2,000	Gal.	1,000						
	2,000 - 3,000	Gal.	2,500						
	3,000 - 4,000	Gal.	3,500						
	4,000 - 5,000	Gal.	4,500						
	5,000 - 6,000	Gal.	5,500						
	6,000 - 7,000	Gal.	6,500						
5/8 x 3/4	7,000 - 8,000	Gal.	7,500						
Inch	8,000 - 9,000	Gal.	8,500						
	9,000 - 10,000	Gal.	9,500						
	10,000 - 11,000	Gal.	10,500						
	11,000 - 12,000	Gal.	11,500						
	12,000 - 13,000	Gal.	12,500						
	13,000 - 14,000	Gal.	13,500						
	14,000 - 15,000	Gal.	14,500						
	15,000 - 16,000	Gal.	15,500						
	16,000 - 17,000	Gal.	16,500						
	17,000 - 18,000	Gal.	17,500						
	18,000 - 19,000	Gal.	18,500						
	19,000 - 20,000	Gal.	19,500						
	-	Gal.							
	-	Gal.							
	-	Gal.							
	-	Gal.							
		Subtotal		()	()	()	()	()	()
		Average Monthly Rate	()						
		Average Monthly Usage		()			()		

* Breakdown of meter size usage is not required unless different sewer rates are charged based on size of water meter.

** Number of users should reflect the actual number of "meter settings".

MULTI-FAMILY AND APARTMENT USER ANALYSIS - N/A

If billed as a typical user, the information should be included in the residential information above. If not billed as a typical residential user, please explain below.

Name of Unit	Number of Units	Number of Meters	Revenue Calculations
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

XXV. FORECAST OF WATER USAGE - INCOME - EXISTING SYSTEM - EXISTING USERS
(JULY 1, 2014 TO JUNE 30, 2015)

DEMONSTRATION OF MODEL ACCURACY WITH EXISTING RATES

RESIDENTIAL WATER USE TABLE

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 10,000	Next 30,000	Next 50,000	Over 100,000
First 2,000	23,340	21,133.5	21,133.5					
Next 8,000	49,152	228,731.0	98,304.0	130,427.0				
Next 10,000	4,776	58,033.7	9,552.0	38,208.0	10,273.7			
Next 30,000	1,344	37,196.3	2,688.0	10,752.0	13,440.0	10,316.3		
Next 50,000	192	18,522.9	384.0	1,536.0	1,920.0	5,760.0	8,922.9	
Over 100,000	96	17,281.3	192.0	768.0	960.0	2,880.0	4,800.0	7,681.3
TOTALS	78,900	380,898.7	132,253.5	181,691.0	26,593.7	18,956.3	13,722.9	7,681.3

RESIDENTIAL REVENUE TABLE

Water Use	No. Bills	M Gallons	Existing Rates	Revenue
First 2,000 gallons	78,900	132,253.5	\$17.21 Min. Bill	\$1,357,869
Next 8,000 gallons		181,691.0	4.71 per M Gal.	855,765
Next 10,000 gallons		26,593.7	3.93 per M Gal.	104,513
Next 30,000 gallons		18,956.3	3.39 per M Gal.	64,262
Next 50,000 gallons		13,722.9	3.06 per M Gal.	41,992
Over 100,000 gallons		7,681.3	2.96 per M Gal.	22,737
ANNUAL REVENUE				\$2,447,137

COMMERCIAL WATER USE TABLE

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 10,000	Next 30,000	Next 50,000	Over 100,000
First 2,000	1,680	814.8	814.8					
Next 8,000	792	3,981.2	1,584.0	2,397.2				
Next 10,000	276	3,806.9	552.0	2,208.0	1,046.9			
Next 30,000	264	10,602.0	528.0	2,112.0	2,640.0	5,322.0		
Next 50,000	156	8,156.4	312.0	1,248.0	1,560.0	4,680.0	356.4	
Over 100,000	108	43,618.1	216.0	864.0	1,080.0	3,240.0	5,400.0	32,818.1
TOTALS	3,276	70,979.4	4,006.8	8,829.2	6,326.9	13,242.0	5,756.4	32,818.1

COMMERCIAL REVENUE TABLE

Water Use	No. Bills	M Gallons	Existing Rates	Revenue
First 2,000 gallons	3,276	4,006.8	\$17.21 Min. Bill	\$56,380
Next 8,000 gallons		8,829.2	4.71 per M Gal.	41,586
Next 10,000 gallons		6,326.9	3.93 per M Gal.	24,865
Next 30,000 gallons		13,242.0	3.39 per M Gal.	44,890
Next 50,000 gallons		5,756.4	3.06 per M Gal.	17,615
Over 100,000 gallons		32,818.1	2.96 per M Gal.	97,142
ANNUAL REVENUE				\$282,477

WHOLESALE CUSTOMERS REVENUE TABLE

Water Utility	Water Use (M Gallons)	Exist. Rate (\$/M Gal.)	Revenue
City of Bonnieville	15,023.8	\$2.14	\$32,151
Caveland Environmental Authority-Cave City	107,600.9	2.14	230,266
Caveland Environmental Authority-Mammoth Cave	5,115.0	2.14	10,946
Green-Taylor Water District	56,151.9	2.14	120,165
Larue County Water District	88,197.2	2.14	188,742
City of Munfordville	81,076.2	2.14	173,503
City of Horse Cave	232,907.5	2.14	498,422
ANNUAL REVENUE	586,072.4		\$1,254,195

Billing Analysis Projected Revenue From Water Sales	\$3,983,809
Water Sales Reported in Financial Statement.....	\$3,983,809
Percent Error	0.00%

FORECAST WITH THE PROPOSED RATES

RESIDENTIAL WATER USE TABLE

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 10,000	Next 30,000	Next 50,000	Over 100,000
First 2,000	23,340	21,133.5	21,133.5					
Next 8,000	49,152	228,731.0	98,304.0	130,427.0				
Next 10,000	4,776	58,033.7	9,552.0	38,208.0	10,273.7			
Next 30,000	1,344	37,196.3	2,688.0	10,752.0	13,440.0	10,316.3		
Next 50,000	192	18,522.9	384.0	1,536.0	1,920.0	5,760.0	8,922.9	
Over 100,000	96	17,281.3	192.0	768.0	960.0	2,880.0	4,800.0	7,681.3
TOTALS	78,900	380,898.7	132,253.5	181,691.0	26,593.7	18,956.3	13,722.9	7,681.3

RESIDENTIAL REVENUE TABLE

Percent Rate Increase

9.7%

Water Use	No. Bills	M Gallons	Proposed Rates		Revenue
First 2,000 gallons	78,900	132,253.5	\$18.88	Min. Bill	\$1,489,477
Next 8,000 gallons		181,691.0	5.17	per M Gal.	938,707
Next 10,000 gallons		26,593.7	4.31	per M Gal.	114,643
Next 30,000 gallons		18,956.3	3.72	per M Gal.	70,490
Next 50,000 gallons		13,722.9	3.36	per M Gal.	46,062
Over 100,000 gallons		7,681.3	3.25	per M Gal.	24,940
ANNUAL REVENUE					\$2,684,319

COMMERCIAL WATER USE TABLE

Water Use (Gal.)	Number Bills	Total Usage (M Gal.)	First 2,000	Next 8,000	Next 10,000	Next 30,000	Next 50,000	Over 100,000
First 2,000	1,680	814.8	814.8					
Next 8,000	792	3,981.2	1,584.0	2,397.2				
Next 10,000	276	3,806.9	552.0	2,208.0	1,046.9			
Next 30,000	264	10,602.0	528.0	2,112.0	2,640.0	5,322.0		
Next 50,000	156	8,156.4	312.0	1,248.0	1,560.0	4,680.0	356.4	
Over 100,000	108	43,618.1	216.0	864.0	1,080.0	3,240.0	5,400.0	32,818.1
TOTALS	3,276	70,979.4	4,006.8	8,829.2	6,326.9	13,242.0	5,756.4	32,818.1

COMMERCIAL REVENUE TABLE

Percent Rate Increase 9.7%

Water Use	No. Bills	M Gallons	Proposed Rates	Revenue
First 2,000 gallons	3,276	4,006.8	\$18.88 Min. Bill	\$61,844
Next 8,000 gallons		8,829.2	5.17 per M Gal.	45,616
Next 10,000 gallons		6,326.9	4.31 per M Gal.	27,275
Next 30,000 gallons		13,242.0	3.72 per M Gal.	49,241
Next 50,000 gallons		5,756.4	3.36 per M Gal.	19,322
Over 100,000 gallons		32,818.1	3.25 per M Gal.	106,557
ANNUAL REVENUE				\$309,855

WHOLESALE CUSTOMERS REVENUE

Percent Rate Increase 14.5%

Water Utility	Water Use (M Gallons)	Exist. Rate (\$/M Gal.)	Revenue
City of Bonnieville	15,023.8	\$2.45	\$36,808
Caveland Environmental Authority-Cave City	107,600.9	2.45	263,622
Caveland Environmental Authority-Mammoth Cave	5,115.0	2.45	12,532
Green-Taylor Water District	56,151.9	2.45	137,572
Larue County Water District	88,197.2	2.45	216,083
City of Munfordville	81,076.2	2.45	198,637
City of Horse Cave	232,907.5	2.45	570,623
ANNUAL REVENUE	586,072.4		\$1,435,877

Estimated Revenue Generated from Proposed Rates	\$4,430,052
Revenue From Existing Rates	\$3,983,809
Additional Revenue	\$446,242

MULTI-FAMILY AND APARTMENT USER ANALYSIS – N/A

If billed as a typical user, the information should be included in the residential information above.
If not billed as a typical residential user, please explain below.

Name of Unit	Number of Units	Number of Meters	Revenue Calculations
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

XXVI. FORECAST OF WATER USAGE - INCOME - NEW USERS - EXTENSION ONLY - NO NEW USERS

Meter Size*	Monthly Water Usage	Average	Average Rate	Residential			Non-Residential			
				No. of Users**	Usage (1000)	Income	No. of Users	Usage (1000)	Income	
	0 - 2,000	Gal.	1,000							
	2,000 - 3,000	Gal.	2,500							
	3,000 - 4,000	Gal.	3,500							
	4,000 - 5,000	Gal.	4,500							
	5,000 - 6,000	Gal.	5,500							
	6,000 - 7,000	Gal.	6,500							
5/8 x 3/4 Inch	7,000 - 8,000	Gal.	7,500							
	8,000 - 9,000	Gal.	8,500							
	9,000 - 10,000	Gal.	9,500							
	10,000 - 11,000	Gal.	10,500							
	11,000 - 12,000	Gal.	11,500							
	12,000 - 13,000	Gal.	12,500							
	13,000 - 14,000	Gal.	13,500							
	14,000 - 15,000	Gal.	14,500							
	15,000 - 16,000	Gal.	15,500							
	16,000 - 17,000	Gal.	16,500							
	17,000 - 18,000	Gal.	17,500							
	18,000 - 19,000	Gal.	18,500							
	19,000 - 20,000	Gal.	19,500							
		-	Gal.							
		-	Gal.							
		-	Gal.							
				Subtotal						
			Average Monthly Rate							
			Average Monthly Usage							

* Breakdown of meter size usage is not required unless different water rates are charged based on size of water meter.

** Number of users should reflect the actual number of "meter settings".

MULTI-FAMILY AND APARTMENT USER ANALYSIS

If billed as a typical user, the information should be included in the residential information above. If not billed as a typical residential user, please explain below.

Name of Unit	Number of Units	Number of Meters	Revenue Calculations

XXVII. CURRENT OPERATING BUDGET (SEWER SYSTEM) – N/A
(As of the last full operating year.)

A. Operating Income:

<i>Sewer Revenue</i>	\$ _____
<i>Late Charge Fees</i>	_____
<i>Other (Describe)</i>	_____
<i>Less Allowances and Deductions</i>	(_____)
Total Operating Income	\$ _____

B. Operation and Maintenance Expenses:

(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)

<i>Operation Expense</i>	\$ _____
<i>Maintenance Expense</i>	_____
<i>Customer Accounts Expense</i>	_____
<i>Administrative and General Expense</i>	_____
Total Operating and Maintenance Expenses	\$ _____
Net Operating Income	\$ _____

C. Non-Operating Income:

<i>Interest on Deposits</i>	\$ _____
<i>Other (Identify)</i>	_____
Total Non-Operating Income	\$ _____

D. Net Income \$ _____

E. Debt Repayment:

<i>RUS Interest</i>	\$ _____
<i>RUS Principal</i>	_____
<i>Non-RUS Interest</i>	_____
<i>Non-RUS Principal</i>	_____
Total Debt Repayment	\$ _____

F. Balance Available for Coverage \$ _____

XXVIII. PROPOSED OPERATING BUDGET (SEWER SYSTEM) - EXISTING SYSTEM AND NEW USERS
(1st Full Year of Operation) Year Ending N/A

A. Operating Income:

<i>Sewer Revenue</i>	\$ _____
<i>Late Charge Fees</i>	_____
<i>Other (Describe)</i>	_____
<i>Less Allowances and Deductions</i>	(_____)
Total Operating Income	\$ _____

B. Operation and Maintenance Expenses:
(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)

<i>Operation Expense</i>	\$ _____
<i>Maintenance Expense</i>	_____
<i>Customer Accounts Expense</i>	_____
<i>Administrative and General Expense</i>	_____
Total Operating and Maintenance Expenses	\$ _____
Net Operating Income	\$ _____

C. Non-Operating Income:

<i>Interest on Deposits</i>	\$ _____
<i>Other (Identify)</i>	_____
Total Non-Operating Income	\$ _____

D. Net Income **\$ _____**

E. Debt Repayment:

<i>RUS Interest</i>	\$ _____
<i>RUS Principal</i>	_____
<i>Non-RUS Interest</i>	_____
<i>Non-RUS Principal</i>	_____
Total Debt Repayment	\$ _____

F. Balance Available for Coverage **\$ _____**

XXIX. PROPOSED OPERATING BUDGET (SEWER SYSTEM) - NEW USERS - EXTENSION ONLY (1st Full Year of Operation) Year Ending N/A

A. Operating Income:

<i>Sewer Revenue</i>	\$ _____
<i>Late Charge Fees</i>	_____
<i>Other (Describe)</i>	_____
<i>Less Allowances and Deductions</i>	(_____)
Total Operating Income	\$ _____

B. Operation and Maintenance Expenses:
(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)

<i>Operation Expense</i>	\$ _____
<i>Maintenance Expense</i>	_____
<i>Customer Accounts Expense</i>	_____
<i>Administrative and General Expense</i>	_____
Total Operating and Maintenance Expenses	\$ _____
Net Operating Income	\$ _____

C. Non-Operating Income:

<i>Interest on Deposits</i>	\$ _____
<i>Other (Identify)</i>	_____
Total Non-Operating Income	\$ _____

D. Net Income \$ _____

E. Debt Repayment:

<i>RUS Interest</i>	\$ _____
<i>RUS Principal</i>	_____
<i>Non-RUS Interest</i>	_____
<i>Non-RUS Principal</i>	_____
Total Debt Repayment	\$ _____

F. Balance Available for Coverage \$ _____

XXX. CURRENT OPERATING BUDGET (WATER SYSTEM)

(As of the last full operating year.)

Ending June 30, 2015

A. Operating Income:

Metered Water Sales, Residential	\$ 2,447,137
Metered Water Sales, Commercial	282,477
Wholesale Water Sales	1,254,195
Other; Cash Water Sales	245
Revenue from Maintenance & Contract Work	81,490
Forfeited Discounts	66,033
Miscellaneous	82,021

Total Operating Income **\$ 4,213,598**

B. Operation and Maintenance Expenses:

Source of Supply & Pumping	
Operations	\$ 596,531
Maintenance	5,906
Water Treatment Expense	
Operations	375,570
Transmission & Distribution	
Operations	83,716
Maintenance	893,764
Customer Accounts Expense	300,187
Administrative and General Expenses	479,163
Taxes Other Than Income Taxes	75,022

Total O&M Expenses **\$ 2,809,859**

C. Non-Operating Income (Expense):

Gain on Sale of Equipment	\$ 0
Interest Income	942
Amortization of Premium on Bond Issue	50,776

Total Non-Operating Income **\$ 51,718**

D. Net Income **\$ 1,455,457**

E. Debt Repayment:

RUS Interest	\$ 331,443
RUS Principal	172,500
Non-RUS Interest	136,638
Non-RUS Principal	435,000

Total Debt Repayment **\$ 1,075,581**

F. Balance Available for Coverage **\$ 379,876**

XXXI. PROPOSED OPERATING BUDGET (WATER SYSTEM) EXISTING SYSTEM AND NEW USERS
 (1st Full Year of Operation) **Year Ending 2019**

A. Operating Income:	
Metered Water Sales, Residential	\$ 2,684,319
Metered Water Sales, Commercial	309,855
Wholesale Water Sales	1,435,877
Other; Cash Water Sales	167
Revenue from Maintenance & Contract Work	84,053
Forfeited Discounts	69,669
Miscellaneous	53,110
Total Operating Income	\$ 4,637,052
B. Operation and Maintenance Expenses:	
Source of Supply & Pumping	
Operations	\$ 687,376
Maintenance	6,805
Water Treatment Expense	
Operations	432,765
Transmission & Distribution	
Operations	96,465
Maintenance	1,029,875
Customer Accounts Expense	345,902
Administrative and General Expenses	552,134
Taxes Other Than Income Taxes	86,447
New Project O&M Increase	109,026
Short Lived Assets - Reserve	195,327
Total O&M Expenses	\$ 3,542,123
C. Non-Operating Income (Expense):	
Gain on Sale of Equipment	\$ 2,850
Interest Income	3,180
Amortization of Premium on Bond Issue	42,241
Total Non-Operating Income	\$ 48,272
D. Net Income	\$ 1,143,201
E. Debt Repayment:	
RUS Interest	\$ 403,624
RUS Principal	304,442
Non-RUS Interest	70,525
Non-RUS Principal	260,699
Total Debt Repayment	\$ 1,039,290
F. Balance Available for Coverage	\$ 103,911

XXXII. PROPOSED OPERATING BUDGET (WATER SYSTEM) NEW USERS EXTENSION ONLY N/A
 (1st Full Year of Operation) Year Ending

A. Operating Income:

Water Sales	\$ _____
Disconnect/Reconnect/Late Charge Fees	_____
Other (Describe)	_____
Less Allowances and Deductions	(_____)
Total Operating Income	\$ _____

B. Operation and Maintenance Expenses:

(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)

Source of Supply Expense	\$ _____
Pumping Expense	_____
Water Treatment Expense	_____
Transmission and Distribution Expense	_____
Customer Accounts Expense	_____
Capital Improvements	_____
Administrative and General Expense	_____
Total Operating Expenses	\$ _____
Net Operating Income	\$ _____

C. Non-Operating Income:

Interest on Deposits	\$ _____
Other (Identify)	_____
Total Non-Operating Income	_____

D. Net Income \$ _____

E. Debt Repayment:

RUS Interest	\$ _____
RUS Principal	_____
Non-RUS Interest	_____
Non-RUS Principal	_____
Total Debt Repayment	\$ _____

F. Balance Available for Coverage \$ _____

XXXIII. ESTIMATED PROJECT COST – SEWER – N/A
(Round to nearest \$100)

	<i>COLLECTION</i>	<i>TREATMENT</i>	<i>TOTAL</i>
<i>Development</i>	_____	_____	<i>N/A</i>
<i>Land & Rights</i>	_____	_____	_____
<i>Legal</i>	_____	_____	_____
<i>Engineering</i>	_____	_____	_____
<i>Interest</i>	_____	_____	_____
<i>Contingencies</i>	_____	_____	_____
<i>Initial Operating and Maintenance</i>	_____	_____	_____
<i>Other</i>	_____	_____	_____
TOTAL	_____	_____	_____

XXXIV. ESTIMATED PROJECT FUNDING – SEWER – N/A

	<i>COLLECTION</i>	<i>TREATMENT</i>	<i>TOTAL</i>
<i>Applicant - User Contribution Fees</i>	_____	_____	<i>N/A</i>
<i>Other - Applicant Contribution</i>	_____	_____	_____
<i>RUS Loan</i>	_____	_____	_____
<i>RUS Grant</i>	_____	_____	_____
<i>ARC Grant (If applicable)</i>	_____	_____	_____
<i>CDBG (If applicable)</i>	_____	_____	_____
<i>Other (Specify)</i>	_____	_____	_____
<i>Other (Specify)</i>	_____	_____	_____

XXXV. ESTIMATED PROJECT COST - WATER

Construction Cost	\$ 6,335,000
Contingency	560,000
Engineering Design	420,000
Construction Observation	282,000
Preliminary Engineering Report	20,000
Geotechnical Exploration	25,000
Environmental Survey	20,000
Surveying & Mapping	15,000
Bond Counsel	30,000
Local Counsel	13,000
Interim Interest	280,000
TOTAL	8,000,000

XXXVI. PROPOSED PROJECT FUNDING

Rural Development Grant	\$ 2,400,000
Rural Development Loan	\$ 5,600,000
TOTAL	\$ 8,000,000

**Green River Valley Water District
May 2016**

Replacement Reserves - Short Lived Assets				
Type of Reserve	User Description	Replacement Cost	Reserve on Hand	Annual Reserve
1-5 Years	5 - Trucks	\$175,000	\$0	\$35,000
1-5 Years	Lab Equipment	\$15,000	\$0	\$3,000
1-5 Years	9 - Computers	\$10,800	\$0	\$2,160
Subtotal 1-5 Years				\$40,160
5-10 Years	1 - Trackhoe	\$75,000	\$0	\$7,500
5-10 Years	1 - Dump Trucks	\$50,000	\$0	\$5,000
5-10 Years	WTP Equipment	\$20,000	\$0	\$2,000
5-10 Years	3,600 - Meters	\$540,000	\$0	\$54,000
Subtotal 5-10 Years				\$68,500
10-15 Years	13 - Tank Rehab	\$1,300,000	\$0	\$86,667
Subtotal 10-15 Years				\$86,667
Replacement Reserve - Short Lived Assets				\$195,327

EXHIBIT 2B

***COST OF SERVICE STUDY
FOR
RETAIL AND WHOLESALE WATER RATES***

GREEN RIVER VALLEY WATER DISTRICT

Prepared by
Alan H. Vilines, P.E.



Kentucky Rural Water Association

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HISTORICAL FINANCIAL INFORMATION AND PROJECTIONS
Green River Valley Water District

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>Annual Growth Rate</u>		<u>Projected</u>
				GRVWD Financial Statement Information		<u>2021</u>
OPERATING REVENUE				Calculated	Projection	
Metered Water Sales						
Residential	\$2,416,031	\$2,479,204	\$2,562,441	w/ prop. Rates		\$ 3,186,966
Commercial	267,775	246,828	236,949	w/ prop. Rates		298,480
	<u>\$2,683,806</u>	<u>\$2,726,032</u>	<u>\$2,799,390</u>			<u>\$ 3,485,446</u>
Wholesale Water Sales:						
Horse Cave	\$487,690	\$551,373	\$578,805			
CEA Cave City	170,608	135,038	255,460			
Munfordville	180,695	195,926	212,890			
Larue County	188,516	193,127	197,387			
Bonnieville	28,750	32,114	36,667			
Green-Taylor	143,168	67,709	129,297			
CEA	21,384	20,242	24,916			
	<u>\$1,220,811</u>	<u>\$1,195,529</u>	<u>\$1,435,422</u>	w/ prop. Rates		<u>\$ 1,714,997</u>
Other Operating Revenues:						
Cash Water Sales	\$479	\$226	\$284	3 Yr. Avg.		\$ 330
Rev. from Maint. & Contract Work	89,765	97,374	71,881	3 Yr. Avg.		86,340
Forfeited Discounts	58,719	63,449	65,772	3 Yr. Avg.		62,647
Miscellaneous	61,925	29,453	25,724	3 Yr. Avg.		39,034
	<u>\$210,888</u>	<u>\$190,502</u>	<u>\$163,661</u>			<u>\$ 188,350</u>
TOTAL OPERATING REVENUES	\$4,115,505	\$4,112,063	\$4,398,473			\$ 5,388,793
OPERATING EXPENSES						
Source of Supply and Pumping Expenses						
Operations	\$632,323	\$562,722	\$775,790	2.79%		\$ 842,625
Maintenance	9,216			2.79%		-
Water Treatment Expenses						
Operations	385,233	434,487	387,562	2.79%		420,951
Transmission and Distribution						
Operations	82,404	80,630	83,322	2.79% *		123,084
Maintenance	934,788	887,585	930,245	2.79% *		1,070,541
Customer Accounts Expenses	312,621	320,784	297,563	2.79%		323,199
Administrative and General Expenses	554,952	542,449	597,434	2.79%		648,904
Taxes Other Than Income	85,473	87,209	92,506	2.79% *		106,363
New Projected O&M at WTP						115,195
Short Lived Assets						462,827
TOTAL OPERATING EXPENSES	\$2,997,010	\$2,915,866	\$3,164,422	2.79%		\$ 4,113,687
NONOPERATING REVENUE & (EXPENSES)						
Gain on Sales of Equipment	0	15,029	0	3 Yr. Avg.		\$ 5,010
Interest Income	7,497	7,611	5,791	3 Yr. Avg.		\$ 6,966
Amortization of Premium on Bond Issue	44,849	38,602	32,043			32,043
Interest Penalty on Early Retir. of Bonds	0	0	0			-
TOTAL NONOPER. REV. & (EXPEN)	\$52,346	\$61,242	\$37,834			\$44,019
NET INCOME (LOSS)	\$1,170,841	\$1,257,439	\$1,271,885			\$ 1,319,125
DEBT REPAYMENT						
RUS Interest	\$326,476	\$319,542	\$312,359			288,762
RUS Principal	177,000	183,500	190,000			216,000
Non-RUS Interest	118,745	105,189	88,387			56,555
Non-RUS Principal	483,496	451,593	432,056			278,465
Proposed Project Principal & Interest	0	0	0			285,480
TOTAL DEBT REPAYMENT	\$1,105,717	\$1,059,824	\$1,022,802			\$ 1,125,262
BALANCE AVAILABLE FOR COVERAGE	\$65,124	\$197,615	\$249,083			\$ 193,862

Green River Valley Water District

Replacement Reserves - Short Lived Assets				
Type of Reserve	User Description	Replacement Cost	Reserve on Hand	Annual Reserve
1-5 Years	15 - Trucks	\$ 450,000	-	\$ 90,000
1-5 Years	Lab Equipment	50,000	-	10,000
1-5 Years	9 - Computers	10,800	-	2,160
1-5 Years	3,600 Meters	540,000	-	108,000
Subtotal 1-5 Years				\$ 210,160
5-10 Years	1 - Trackhoe	\$ 250,000	-	25,000
5-10 Years	2 - Backhoes	320,000	-	32,000
5-10 Years	3 - Dump Trucks	265,000	-	26,500
5-10 Years	WTP Equipment	20,000	-	2,000
5-10 Years	3,600 - Meters	540,000	-	54,000
5-10 Years	Skid Steer	45,000	-	4,500
Subtotal 5-10 Years				\$ 144,000
10-15 Years	13 - Tank Rehab	\$ 1,300,000	-	86,667
10-15 Years	Pumping Equipment	160,000	-	10,667
10-15 Years	Telemetry	170,000	-	11,333
Subtotal 10-15 Years				\$ 108,667
Replacement Reserve - Short Lived Assets				\$ 462,827

SUMMARY OF DEBT SERVICE AND COVERAGE
Green River Valley Water District

	Payments Required in 2021		
	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
1996 A - RD	31,000	28,080	59,080
1996 B - RD	18,000	17,393	35,393
1996 C - RD	7,000	6,638	13,638
2004 - RD	96,000	176,400	272,400
2010 - RD	64,000	60,251	124,251
Subtotal RUS	216,000	288,762	504,762
2013 - KRWFC	215,000	49,410	264,410
2014 - KIA	63,465	7,145	70,610
Subtotal Other	278,465	56,555	335,020
Proposed 2019 - RD *	113,980	171,500	285,480
Total Principal & Interest	\$ 608,445	\$ 516,817	\$ 1,125,262
 <u>Coverage:</u>			
Existing RD Loans			\$ 100,952
Existing KRWFC			52,882
Existing KIA Loan			7,061
Proposed RD Loan			28,548
Total Coverage			\$ 189,443
Total Debt Service with Coverage			\$ 1,314,706

* Based on \$10.0 million project with \$3.0 million grant. \$5.6 million loan at 2.25% and \$1.4 million loan at 3.25%.

WHOLESALE / RETAIL EXPENSE ALLOCATIONS AND
WHOLESALE RATE COMPUTATION
Green River Valley Water District

	<u>Total</u>	<u>Allocation</u> <u>Factor</u>	<u>Wholesale</u> <u>Allocation</u>	<u>Retail</u> <u>Allocation</u>
Salaries & Wages				
Customer Accts.	\$ 167,910		0	167,910
Water Supply & Treatment	419,910	0.5089	213,710	206,201
Trans./Distribution	462,618	0.1802	83,383	379,235
Admin & General	354,548	0.1802	63,904	290,644
Employee Benefits + Taxes				
Customer Accts.	19,291		0	19,291
Water Supply & Treatment	47,626	0.5089	24,239	23,387
Trans./Distribution	67,869	0.1802	12,233	55,637
Admin & General	30,955	0.1802	5,579	25,376
Salaries - Officers (A & G)	16,727	0.5089	8,513	8,214
Purchased Water	16,727	0.5089	8,513	8,214
Purchased Power				
Water Supply & Treatment	361,870	0.5089	184,171	177,700
Trans./Distribution	90,500	0.5956	53,899	36,601
Admin & General	19,450	0.1802	3,506	15,944
Chemicals	192,447	0.5089	97,944	94,503
Materials & Supplies				
Customer Accts.	61,888		0	61,888
Water Supply & Treatment	36,756	0.5089	18,707	18,050
Trans./Distribution	213,087	0.1802	38,407	174,680
Admin & General	24,488	0.1802	4,414	20,075
Contr. Services - Acct. & Legal	31,702	0.5956	18,880	12,821
Contr. Services - Cust. Accts.	2,167		0	2,167
Contr. Services - Other				
Water Supply & Treatment	228,222	0.5089	116,152	112,071
Trans./Distribution	157,641	0.1802	28,413	129,227
Admin & General	45,795	0.1802	8,254	37,541
Transportation Expense				
Customer Accts.	46,782		0	46,782
Trans./Distribution	115,047	0.1802	20,736	94,311
Admin & General	4,527	0.5956	2,696	1,831
Insurance - Workers Comp & Empl.				
Customer Accts.	26,631		0	26,631
Water Supply & Treatment	59,898	0.5089	30,485	29,413
Trans./Distribution	61,168	0.1802	11,025	50,143
Admin & General	56,233	0.1802	10,136	46,098

Employee Flex Reimbursements				
Customer Accts.	7,063		0	7,063
Water Supply & Treatment	15,887	0.5089	8,086	7,802
Trans./Distribution	16,224	0.1802	2,924	13,300
Admin & General	14,915	0.1802	2,688	12,227
Property & Other Insurance				
Water Supply & Treatment	32,640	0.5089	16,612	16,028
Trans./Distribution	47,580	0.5956	28,337	19,243
Admin & General	5,240	0.5956	3,121	2,119
Bad Debt Expense	14,610		0	14,610
Misc. Expense				
Customer Accts.	4,919		0	4,919
Admin & General	51,301	0.5956	30,553	20,748
Reserve for Short Term Assets				
Customer	212,056		0	212,056
Water Supply & Treatment	12,000	0.5089	6,107	5,893
Trans./Distribution	231,767	0.5956	138,033	93,733
Admin & General	7,004	0.1802	1,262	5,742
Total Operating Expenses	4,113,687		1,305,622	2,808,065
Debt Service & Coverage				
Water Supply & Treatment	564,875	0.5089	287,488	277,387
Trans. / Distribution	654,811	0.1802	118,024	536,787
Admin & General	6,054	0.1802	1,091	4,963
Customer	88,966			88,966
Total Expense Allocations	5,428,393		1,712,225	3,716,168
Wholesale Gallons Sold (x 1,000)			669,921	
Wholesale Rate per 1,000 Gallons			\$2.56	

Table A
SYSTEM INFORMATION
Green River Valley Water District

Schedule of All Mains and Jointly Used Mains

<u>Main Size</u>	<u>Total System</u>			<u>Joint Use</u>	
	<u>Length (feet)</u>	<u>Miles of Mains</u>	<u>Inch - Miles</u>	<u>Miles of Mains</u>	<u>Inch - Miles</u>
16	101,904	19.3	308.80	18.4	293.86
12	125,136	23.7	284.40	21.5	257.90
10	147,840	28.0	280.00	19.0	189.50
8	199,056	37.7	301.60	25.5	203.70
6	719,294	136.2	817.38	23.2	139.23
4	1,038,576	196.7	786.80	8.2	32.97
3	1,554,960	294.5	883.50		
2	76,560	14.5	29.00		
Totals	3,963,326	750.6	3,691.48	115.7	1,117.17

Water Purchased, Sold and Used

	<u>Gallons x 1,000</u>	<u>Percent</u>
Water Produced	1,448,308.0	
Retail Sales	454,792.0	
Bulk Loading Sta.	125.0	
Wholesale Sales	669,920.7	
Total Water Sold	1,124,837.7	
Water Used at WTP	27,764.3	1.92%
System Flushing	2,000.0	0.14%
Line Losses	278,706.0	19.24%
Fire Dept. & Other	15,000.0	

Table B
WHOLESALE ALLOCATION FACTORS
Green River Valley Water District

				<u>FACTOR</u>	
Line Loss Percentage				0.1924	
Plant Use Percentage				0.0192	
Line Loss + Plant Use				0.2116	
Joint Use Inch-miles				1,117.17	
Total Inch-Miles				3,691.48	
Water Sold - Wholesale				669,920.73	
Water Sold - Total				1,124,837.73	
Production Multiplier		$\frac{1}{1 - 0.2116}$	=	1.2684	
Joint Use Pipeline Ratio		$\frac{1,117.17}{3,691.48}$	=	0.3026	
Wholesale Share of Line Loss	0.1924	x	0.3026	=	0.0582
Joint Share Line Loss + Plant Use	0.0582	+	0.0192	=	0.0774
Wholesale Production Multiplier		$\frac{1}{1 - 0.0774}$	=	1.0839	
Production Allocation Factor	$\frac{1.0839}{1.2684}$	x	$\frac{669,920.7}{1,124,837.7}$	=	0.5089
Pipeline Transmission Factor	$\frac{669,920.7}{1,124,837.7}$	x	0.3026	=	0.1802
Use Factor			$\frac{669,920.7}{1,124,837.7}$	=	0.5956

Table C
ALLOCATION OF PLANT VALUE AND DEBT SERVICE - WHOLESALE
Green River Valley Water District

	<u>Total</u> <u>Values</u>	<u>Water Supply</u> <u>& Treatment</u>	<u>Trans. &</u> <u>Distribution</u>	<u>General</u> <u>& Admin.</u>	<u>Customer</u>
Land & Land Rights	157,172	157,172			
L & L Rights Structures & Improvements	86,496	86,496			
L & L Rights Water Treatment	188,386	188,386			
L & L Rights Hydrants	6,900				6,900
Structures & Improvements	3,557,346	3,557,346			
Collecting and Impounding Reservoirs	2,556,206	2,556,206			
River Intakes	495,652	495,652			
Supply Mains	312,627	312,627			
Electric Pumping Equipment	3,989,732	1,196,920	2,792,812		
Water Treatment Equipment	1,362,392	1,362,392			
Distribution Reservoirs & Standpipes	3,108,627		3,108,627		
Trans. & Distribution Mains	19,482,801		19,482,801		
Services	932,772				932,772
Meters	1,697,419				1,697,419
Meter Installations	157,159				157,159
Hydrants	128,124				128,124
Lab Equipment	3,343	3,343			
Structures & Improvements Office Bldg	610,371	61,037	183,111	122,074	244,148
Office Furniture & Equipment	318,466	31,847	95,540	63,693	127,386
Transportation Equipment	662,744		458,336	18,035	186,373
Communication Equipment	191,169	19,117	57,351	38,234	76,468
Subtotals	40,005,904	10,028,540	26,178,578	242,037	3,556,749
Percentages		25.1%	65.4%	0.6%	8.9%
Other Plant	25,564	6,408	16,728	155	2,273
Tools, Shop, & Other Equipment	169,812	42,568	111,120	1,027	15,097
Power Operated Equipment	513,437	128,707	335,977	3,106	45,647
Totals	\$ 40,714,717	\$ 10,206,223	\$ 26,642,402	\$ 246,325	\$ 3,619,767
Plant Value Percentages		25.1%	65.4%	0.6%	8.9%
<u>Allocation of Debt Service:</u>					
Existing Debt Service & Coverage	\$ 1,000,677	\$ 250,846	\$ 654,811	\$ 6,054	\$ 88,966
Proposed Debt Serv. & Cov. - WTP	314,028	314,028			
Total Debt Service Allocations	\$ 1,314,706	\$ 564,875	\$ 654,811	\$ 6,054	\$ 88,966

Table D
ALLOCATION OF OPERATION & MAINTENANCE EXPENSE - RETAIL
Green River Valley Water District

	<u>Total</u>				<u>Admin. &</u>
	<u>Values</u>	<u>Commodity</u>	<u>Demand</u>	<u>Customer</u>	<u>General</u>
Salaries & Wages	1,043,990		585,436	167,910	290,644
Employee Benefits + Taxes	123,691		79,024	19,291	25,376
Salaries - Officers (A & G)	8,214				8,214
Purchased Water	8,214	8,214			
Purchased Power	230,245		214,301		15,944
Chemicals	94,503	94,503			
Materials & Supplies	274,692		192,729	61,888	20,075
Contr. Services - Acct. & Legal	12,821				12,821
Contr. Services - Cust. Accts.	2,167			2,167	
Contr. Services - Other	278,839		241,298		37,541
Transportation Expense	142,924		94,311	46,782	1,831
Insurance - Workers Comp & Empl.	152,285		79,556	26,631	46,098
Employee Flex Reimbursements	40,391		21,101	7,063	12,227
Property & Other Insurance	37,390		35,271		2,119
Bad Debt Expense	14,610			14,610	
Misc. Expense	25,667			4,919	20,748
Reserve for Short Term Assets	317,423		99,626	212,056	5,742
Totals	2,808,065	102,717	1,642,653	563,317	499,378
Less Admin. & General	<u>499,378</u>				
Total w/o A & G	2,308,687				
Percentages w/o A & G	100.00%	4.45%	71.15%	24.40%	
Allocation of Admin. & General	499,378	22,218	355,312	121,848	
Total O & M Expense Allocations	2,808,065	124,935	1,997,965	685,165	

Table E
ALLOCATION OF PLANT VALUE AND DEBT SERVICE - RETAIL
Green River Valley Water District

	<u>Total</u>			
	<u>Values</u>	<u>Commodity</u>	<u>Demand</u>	<u>Customer</u>
Land & Land Rights	157,172	157,172		
L & L Rights Structures & Improvements	86,496	86,496		
L & L Rights Water Treatment	188,386		188,386	
L & L Rights Hydrants	6,900			6,900
Structures & Improvements	3,557,346		3,557,346	
Collecting and Impounding Reservoirs	2,556,206	2,556,206		
River Intakes	495,652	495,652		
Supply Mains	312,627		312,627	
Electric Pumping Equipment	3,989,732		3,989,732	
Water Treatment Equipment	1,362,392		1,362,392	
Distribution Reservoirs & Standpipes	3,108,627		3,108,627	
Trans. & Distribution Mains	19,482,801		19,482,801	
Services	932,772			932,772
Meters	1,697,419			1,697,419
Meter Installations	157,159			157,159
Hydrants	128,124			128,124
Lab Equipment	3,343	3,343		
Subtotals	38,223,154	3,298,869	32,001,911	2,922,374
Percentages		8.63%	83.72%	7.65%
Structures & Improvements Office Bldg	610,371	52,678	511,026	46,666
Other Plant	25,564	2,206	21,403	1,955
Office Furniture & Equipment	318,466	27,485	266,632	24,349
Transportation Equipment	662,744	57,198	554,875	50,670
Tools, Shop, & Other Equipment	169,812	14,656	142,173	12,983
Power Operated Equipment	513,437	44,312	429,869	39,255
Communication Equipment	191,169	16,499	160,054	14,616
Totals	\$ 40,714,717	\$ 3,513,905	\$ 34,087,944	\$ 3,112,868
Plant Value Percentages Not Customer		9.35%	90.65%	
<u>Allocation of Debt Service:</u>				
Ex. Retail Debt Service & Coverage	\$ 691,195	\$ 56,279	\$ 545,951	\$ 88,966
Prop. Retail Debt Serv. & Cov. - WTP	216,908		\$ 216,908	
Total Debt Service Allocations	\$ 908,103	\$ 56,279	\$ 762,859	\$ 88,966

Table F
SUMMARY OF ALLOCATIONS - RETAIL
Green River Valley Water District

	<u>Total</u> <u>Values</u>	<u>Commodity</u>	<u>Demand</u>	<u>Customer</u>
Operation & Maintenance Expenses	2,808,065	124,935	1,997,965	685,165
Debt Service & Coverage	<u>908,103</u>	<u>56,279</u>	<u>762,859</u>	<u>88,966</u>
Total Expenses - Retail	3,716,168	181,213	2,760,824	774,131
Less:				
Cash Water Sales	330	330		
Rev. from Maint. & Contract Work	86,340	86,340		
Forfeited Discounts	62,647			62,647
Miscellaneous Operating Revenue	39,034	39,034		
Non-operating Revenues	<u>44,019</u>	<u>44,019</u>	<u>-</u>	<u>-</u>
Revenue Required from Retail Rates	3,483,799	11,491	2,760,824	711,484

Table G
CALCULATION OF WATER RATES - RETAIL
Green River Valley Water District

	<u>Total</u>	<u>First 2,000</u>	<u>Next 8,000</u>	<u>Next 20,000</u>	<u>Over 30,000</u>
Actual Commodity Sales	454,792,000	25,515,900	221,755,500	99,183,500	108,337,100
Commodity Percentages	100.00%	5.61%	48.76%	21.81%	23.82%
Demand Weighting Factor		7.25	1.60	1.25	1.00
Demand Weighted Sales	772,115,550	184,990,275	354,808,800	123,979,375	108,337,100
Demand Percentages		23.96%	45.95%	16.06%	14.03%
Commodity Costs	11,491	645	5,603	2,506	2,737
Demand Costs	2,760,824	661,463	1,268,676	443,308	387,377
Customer Costs	711,484	711,484			
Total Costs	3,483,799	1,373,592	1,274,279	445,814	390,114
No. of Bills or Gals. Sold		81,549	221,756	99,184	108,337
CALCULATED RATES (adjusted per Billing Analysis to result in required revenue)		\$22.00	\$5.90	\$4.80	\$3.80

EXISTING AND PROPOSED RATES

Green River Valley Water District

EXISTING WATER RATES

Minimum Bills Based on Meter Size

<u>Meter Size</u>	<u>Gals. incl'd. in Minimum</u>	<u>Minimum Monthly Bill</u>
5/8 x 3/4 inch	2,000	\$ 17.21
1 inch	5,000	31.34
1-1/2 inch	10,000	54.89
2 inch	16,000	78.47

Rates for Water Usage in Addition to Minimum

No. of Gallons per Month

First	2,000	Gallons @	\$ 17.21	L.S. Minimum
Next	8,000	Gallons @	4.71	per 1,000 Gallons.
Next	10,000	Gallons @	3.93	per 1,000 Gallons.
Next	30,000	Gallons @	3.39	per 1,000 Gallons.
Next	50,000	Gallons @	3.06	per 1,000 Gallons.
Over	100,000	Gallons @	2.96	per 1,000 Gallons.

Wholesale Customers \$ 2.14 per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

PROPOSED WATER RATES

Minimum Bills Based on Meter Size

<u>Meter Size</u>	<u>Gals. incl'd. in Minimum</u>	<u>Minimum Monthly Bill</u>
5/8 x 3/4 inch	2,000	\$ 22.00
1 inch	5,000	39.70
1-1/2 inch	10,000	69.20
2 inch	15,000	93.20

Rates for Water Usage in Addition to Minimum

No. of Gallons per Month

First	2,000	Gallons @	\$ 22.00	L.S. Minimum
Next	8,000	Gallons @	5.90	per 1,000 Gallons.
Next	20,000	Gallons @	4.80	per 1,000 Gallons.
Over	30,000	Gallons @	3.80	per 1,000 Gallons.

Wholesale Customers \$ 2.56 per 1,000 Gallons.

BILLING ANALYSIS WITH PROPOSED RATES
Green River Valley Water District

XXV. FORECAST OF WATER USAGE - INCOME - EXISTING SYSTEM - EXISTING USERS (PROPOSED RATES)

5/8 x 3/4" RESIDENTIAL METERS

	USAGE	BILLS	GALLONS	FIRST 2,000	NEXT 8,000	NEXT 20,000	ALL OVER 30,000	TOTAL
FIRST	2,000	24,340	23,585,200	23,585,200	-	-	-	23,585,200
NEXT	8,000	46,598	216,059,500	93,196,000	122,863,500	-	-	216,059,500
NEXT	20,000	5,764	89,994,600	11,528,000	46,112,000	32,354,600	-	89,994,600
ALL OVER	30,000	920	53,581,800	1,840,000	7,360,000	18,400,000	25,981,800	53,581,800
		77,622	383,221,100	130,149,200	176,335,500	50,754,600	25,981,800	383,221,100

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	77,622	130,149,200	\$ 22.00	\$ 1,707,684
NEXT	8,000		176,335,500	5.90	1,040,379
NEXT	20,000		50,754,600	4.80	243,622
ALL OVER	30,000		25,981,800	3.80	98,731
TOTAL		77,622	383,221,100		\$ 3,090,416

5/8 x 3/4" COMMERCIAL METERS

	USAGE	BILLS	GALLONS	FIRST 2,000	NEXT 8,000	NEXT 20,000	ALL OVER 30,000	TOTAL
FIRST	2,000	1,325	646,800	646,800	-	-	-	646,800
NEXT	8,000	684	3,543,100	1,368,000	2,175,100	-	-	3,543,100
NEXT	20,000	209	3,569,800	418,000	1,672,000	1,479,800	-	3,569,800
ALL OVER	30,000	72	5,526,600	144,000	576,000	1,440,000	3,366,600	5,526,600
		2,290	13,286,300	2,576,800	4,423,100	2,919,800	3,366,600	13,286,300

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	2,000	2,290	2,576,800	\$ 22.00	\$ 50,380
NEXT	8,000		4,423,100	5.90	26,096
NEXT	20,000		2,919,800	4.80	14,015
ALL OVER	30,000		3,366,600	3.80	12,793
TOTAL		2,290	13,286,300		\$ 103,284

1" RESIDENTIAL METERS

	USAGE	BILLS	GALLONS	FIRST 5,000	NEXT 5,000	NEXT 20,000	ALL OVER 30,000	TOTAL
FIRST	5,000	363	871,800	871,800	-	-	-	871,800
NEXT	5,000	182	1,350,300	910,000	440,300	-	-	1,350,300
NEXT	20,000	173	3,276,100	865,000	865,000	1,546,100	-	3,276,100
ALL OVER	30,000	97	10,819,300	485,000	485,000	1,940,000	7,909,300	10,819,300
		815	16,317,500	3,131,800	1,790,300	3,486,100	7,909,300	16,317,500

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	815	3,131,800	\$ 39.70	\$ 32,356
NEXT	5,000		1,790,300	5.90	10,563
NEXT	20,000		3,486,100	4.80	16,733
ALL OVER	30,000		7,909,300	3.80	30,055
TOTAL		815	16,317,500		\$ 89,707

1" COMMERCIAL METERS

	USAGE	BILLS	GALLONS	FIRST 5,000	NEXT 5,000	NEXT 20,000	ALL OVER 30,000	TOTAL
FIRST	5,000	241	398,600	398,600	-	-	-	398,600
NEXT	5,000	48	359,400	96,000	263,400	-	-	359,400
NEXT	20,000	69	1,281,600	138,000	552,000	591,600	-	1,281,600
ALL OVER	30,000	128	14,522,100	256,000	1,024,000	2,560,000	10,682,100	14,522,100
		486	16,561,700	888,600	1,839,400	3,151,600	10,682,100	16,561,700

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	5,000	486	888,600	\$ 39.70	\$ 19,294
NEXT	5,000		1,839,400	5.90	10,852
NEXT	20,000		3,151,600	4.80	15,128
ALL OVER	30,000		10,682,100	3.80	40,592
TOTAL		486	16,561,700		\$ 85,866

2" RESIDENTIAL METERS

	USAGE	BILLS	GALLONS	FIRST 15,000	NEXT 15,000	ALL OVER 30,000	TOTAL
FIRST	15,000	7	13,500	13,500	-	-	13,500
NEXT	15,000	4	96,000	60,000	36,000	-	96,000
ALL OVER	30,000	20	1,215,900	300,000	300,000	615,900	1,215,900
		31	1,325,400	373,500	336,000	615,900	1,325,400

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	15,000	31	373,500	\$ 93.20	\$ 2,889
NEXT	15,000		336,000	4.80	1,613
ALL OVER	30,000		615,900	3.80	2,340
TOTAL		31	1,325,400		\$ 6,842

2" COMMERCIAL METERS

	USAGE	BILLS	GALLONS	FIRST 15,000	NEXT 15,000	ALL OVER 30,000	TOTAL
FIRST	15,000	99	443,200	443,200	-	-	443,200
NEXT	15,000	41	965,400	615,000	350,400	-	965,400
ALL OVER	30,000	165	22,671,400	2,475,000	2,475,000	17,721,400	22,671,400
		305	24,080,000	3,533,200	2,825,400	17,721,400	24,080,000

REVENUE BY RATE INCREMENT

	USAGE	BILLS	GALLONS	RATE	REVENUE
FIRST	15,000	305	3,533,200	\$ 93.20	\$ 28,426
NEXT	15,000		2,825,400	4.80	13,562
ALL OVER	30,000		17,721,400	3.80	67,341
TOTAL		305	24,080,000		\$ 109,329

TOTAL ANNUAL GALLONS 81,549 454,792,000

TOTAL ANNUAL RETAIL SALES REVENUE \$ 3,485,446

EXISTING AND PROPOSED RATES

Green River Valley Water District

July 17, 2019

Rates updated based on total project cost of \$11,625,000 (\$3,487,500 grant & \$8,137,500 loan)

EXISTING WATER RATES

Minimum Bills Based on Meter Size

<u>Meter Size</u>	<u>Gals. incl'd. in Minimum</u>	<u>Minimum Monthly Bill</u>
5/8 x 3/4 inch	2,000	\$ 17.21
1 inch	5,000	31.34
1-1/2 inch	10,000	54.89
2 inch	16,000	78.47

Rates for Water Usage in Addition to Minimum

No. of Gallons per Month

First	2,000	Gallons @	\$ 17.21	L.S. Minimum
Next	8,000	Gallons @	4.71	per 1,000 Gallons.
Next	10,000	Gallons @	3.93	per 1,000 Gallons.
Next	30,000	Gallons @	3.39	per 1,000 Gallons.
Next	50,000	Gallons @	3.06	per 1,000 Gallons.
Over	100,000	Gallons @	2.96	per 1,000 Gallons.

Wholesale Customers \$ 2.14 per 1,000 Gallons.

Date This Rate Went Into Effect November 5, 2010

PROPOSED WATER RATES (after bid opening)

Minimum Bills Based on Meter Size

<u>Meter Size</u>	<u>Gals. incl'd. in Minimum</u>	<u>Minimum Monthly Bill</u>
5/8 x 3/4 inch	2,000	\$ 22.10
1 inch	5,000	39.95
1-1/2 inch	10,000	69.70
2 inch	15,000	93.95

Rates for Water Usage in Addition to Minimum

No. of Gallons per Month

First	2,000	Gallons @	\$ 22.10	L.S. Minimum
Next	8,000	Gallons @	5.95	per 1,000 Gallons.
Next	20,000	Gallons @	4.85	per 1,000 Gallons.
Over	30,000	Gallons @	3.85	per 1,000 Gallons.

Wholesale Customers \$ 2.59 per 1,000 Gallons.