

KENTUCKY GUIDE 7
MAY 1998

Submitted
Feb 2018
Bell Engineering

SUMMARY ADDENDUM
TO
PRELIMINARY ENGINEERING REPORT
DATED FEBRUARY 2019
FOR
MCUPTON PUMP STATION REPLACEMENT AND WATER LINE UPGRADES
Name of Project
SCOTT BRIDGES
Application Contact Person
APPLICANT PHONE NUMBER 270-522-8425
APPLICANT TAX IDENTIFICATION NUMBER (TIN) 01-0678683

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 section 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 through the project will benefit only one utility.***

Feasibility reviews and grant determination 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

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 Barkley Lake Water District (BLWD) desires to increase flow and improve pressure in the northern portion of their service area. The existing McUpton Pump Station (MPS) was constructed in the early 1970's and is not equipped to handle increasing pressure and demands generated by regional growth. The proposed project will eliminate the existing station by constructing a new station in the same vicinity. The new station will be equipped with variable speed drive triplex pumps and should increase operating efficiencies and improve overall operations in the northern portion of the system. In addition to the pump station work, select portions of distribution lines will be replaced to support the increase flows and operating pressures from the new pump station.

The engineers' opinion of probable construction cost for the project is \$653,299.00 with a corresponding opinion of probable project cost of \$852,500.00.

II. FACILITY CHARACTERISTICS OF EXISTING SEWER SYSTEM - NOT APPLICABLE

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.

The BLWD owns and operates a 4 MGD treatment facility. Water from said facility is used to supply customers within the service area as well as wholesale purchasers.

If the applicant purchases water: Not Applicable
 Seller(s):

Price/1,000 gallons: Not Applicable

Present Estimated Market Value of Existing System: According to FYE 2017 Audit the net position of the District is \$ 7,238,692
 (Original cost per books – before depreciation) with Assets valued at \$ 15,166,523.

- B. Water Storage:

Type:	Ground Storage Tank	-	Elevated Tank	3
	Standpipe	3	Other	-
Number of Storage Structures				6
Total Storage Volume Capacity				2,850,000
Date Storage Tank(s) Constructed				1960-Present

- C. Water Distribution System:

Pipe Material	<u>Ductile Iron, PVC, AC, Cast Iron</u>			
Lineal Feet of Pipe: Piping sizes vary from 2" to 8" in diameter				
	3"	541,200	4"	1,230,240
	6"	575,520	8"	179,520
	10"	15,840	12"	79,200
	14"	41,076	16"	21,120
Date(s) Water Lines Constructed				1960-Present
Number and Capacity of Pump Station(s)				unknown

- 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.

Water treatment facility was recently upgraded. Existing system is well managed and repairs made as needed. The majority of the system is in good operating condition.

- E. Percentage of Water Loss Existing System. < 15%

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> (12/31/17)	<u>Maturity Date</u>	<u>Bond Type</u>		<u>Issue Amount</u>	<u>Interest Rate</u>
				<u>Water/Sewer*</u>			
<u>2005</u>	<u>Bond Series 2005</u>	1,011,000	2044	100%	0%	1,185,000	4-6%
<u>2008</u>	<u>Bond Series 2008C</u>	2,160,000	2037	100%	0%	3,060,000	2.35-4.55%
<u>2010</u>	<u>Bond Series 2010A</u>	3,809,500	2051	100%	0%	4,002,000	3.375%
<u>2010</u>	<u>Bond Series 2010B</u>	1,683,485	2049	100%	0%	1,837,000	3%
<u>2012</u>	<u>Bond Series 2012E</u>	1,145,000	2033	100%	0%	1,465,000	2.2-3.55%
<u>2014</u>	<u>Bond Series 2014</u>	812,500	2055	100%	0%	825,000	2.75%

B. Principal and Interest Payments: According to FYE 2017 Audit

<u>Maturity</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2,018	\$ 290,000.00	\$ 375,606.00	\$ 665,606.00
2,019	\$ 305,000.00	\$ 365,271.00	\$ 670,271.00
2,020	\$ 318,500.00	\$ 354,055.00	\$ 672,555.00
2,021	\$ 324,000.00	\$ 342,447.00	\$ 666,447.00
2,022	\$ 339,000.00	\$ 330,359.00	\$ 669,359.00

V. EXISTING SHORT-TERM INDEBTEDNESS

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

VI. LAND AND RIGHTS - EXISTING SYSTEM(S)

	Water		<i>Sewer</i>	
Number of Treatment Plant Sites:	<u>1</u>		<u><i>n/a</i></u>	
Number of Storage Tank Sites	<u>6</u>		<u><i>n/a</i></u>	
Number of Pump Stations:	<u>5</u>		<u><i>n/a</i></u>	
Total Acreage:	<u>7</u>	Acres	<u><i>n/a</i></u>	Acres
Purchase Price:	Water \$	<u>N/A</u>	<u><i>n/a</i></u>	

VII. NUMBER OF EXISTING USERS

	Water	<i>Sewer</i>
Combined Customers	<u>5,838</u>	<u><i>n/a</i></u>

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

Meter Size	Water Connection Fee	<i>Sewer Connection Fee</i>
5/8" x 3/4"	800	<i>N/A</i>
1"	800	<i>N/A</i>
1-1/2"	800	<i>N/A</i>
2"	800	<i>N/A</i>
4"	800	<i>N/A</i>

IX. SEWER RATES - EXISTING SYSTEM (NOT APPLICABLE)

Date This Rate Went Into Effect

X. WATER RATES - EXISTING SYSTEM

Date This Rate Went Into Effect: 7/29/2014

Existing Rate Schedule

5/8" X 3/4" Meter					
First	2,000	Gallons	@	\$20.55	Minimum
Next	98,000	Gallons	@	\$6.92	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons.
1" Meter					
First	4,000	Gallons	@	\$34.39	Minimum
Next	96,000	Gallons	@	\$6.92	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons.
1-1/2" Meter					
First	8,000	Gallons	@	\$62.09	Minimum
Next	92,000	Gallons	@	\$6.92	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons.
2" Meter					
First	15,000	Gallons	@	\$110.56	Minimum
Next	85,000	Gallons	@	\$6.92	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons.
4" Meter					
First	25,000	Gallons	@	\$179.81	Minimum
Next	75,000	Gallons	@	\$6.92	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons.

Wholesale Rate - \$2.23 / 1,000 gallon

XI. ANALYSIS OF ACTUAL SEWER USAGE - EXISTING SYSTEM (N/A)

XII. ANALYSIS OF ACTUAL WATER USAGE - EXISTING SYSTEM (12 MONTH PERIOD JANUARY 2017 - DECEMBER 2017)

5/8" x 3/4" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	2,000	Gallons	505	3,630	1,833.2
2,001	100,000	Gallons	5,856	2,107	12,338.6
100,001	500,000	Gallons	-	-	
Over	500,000	Gallons	-	-	
Total Monthly Average Usage				5,737	14,172
Annual					2.47
					170,060,904

1" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	4,000	Gallons	1,180	49	57.8
4,001	100,000	Gallons	13,666	29	396.3
100,001	500,000	Gallons	-	-	
Over	500,000	Gallons	-	-	0.0
Total Monthly Average Usage				78	454
Annual					5.82
					5,449,700

1-1/2" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	8,000	Gallons	1,331	4	5.3
8,001	100,000	Gallons	53,663	2	107.3
100,001	500,000	Gallons	467,792	1	467.8
Over	500,000	Gallons	-	-	
Total Monthly Average Usage				7	580
Annual					82.92
					6,965,300

2" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	15,000	Gallons	2,497	17	42.5
15,001	100,000	Gallons	70,065	4	280.3
100,001	500,000	Gallons	279,117	1	279.1
Over	500,000	Gallons	-	-	-
Total Monthly				22	602
Average Usage					27.36
Annual					7,221,900

4" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	25,000	Gallons	-	-	0.0
25,001	100,000	Gallons	-	-	0.0
100,001	500,000	Gallons	-	-	0.0
Over	500,000	Gallons	2,225,533	1	2,225.5
Total Monthly				1	2,226
Average Usage					2,225.53
Annual					26,706,400

Wholesale Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	1,000	Gallons	1,002,746	6	6,016.5
Total Monthly				6	6,016
Average Usage					1,002.75
Annual					72,197,700

* LYON COUNTY WHOLESALE SALES ARE APPROX. 9,884,000.00 GALLONS

XII. ANALYSIS OF PROJECTED WATER USAGE W/ 3.2% ANNUAL GROWTH
MAINTAINING THE SAME AVERAGE USAGE PER CUSTOMER- EXISTING
SYSTEM (12 MONTH PERIOD)

5/8" x 3/4" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	2,000	Gallons	505	3,862	1,950.5
2,001	100,000	Gallons	5,856	2,249	13,170.1
100,001	500,000	Gallons	-	-	
Over	500,000	Gallons	-	-	
Total Monthly Average Usage				6,111	15,121
Annual					2.47
					181,447,387

1" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	4,000	Gallons	1,180	49	57.8
4,001	100,000	Gallons	13,666	29	396.3
100,001	500,000	Gallons	-	-	
Over	500,000	Gallons	-	-	0.0
Total Monthly Average Usage				78	454
Annual					5.82
					5,449,700

1-1/2" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	8,000	Gallons	1,331	4	5.3
8,001	100,000	Gallons	53,663	2	107.3
100,001	500,000	Gallons	467,792	1	467.8
Over	500,000	Gallons	-	-	
Total Monthly Average Usage				7	580
Annual					82.92
					6,965,300

2" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	15,000	Gallons	2,497	17	42.5
15,001	100,000	Gallons	70,065	4	280.3
100,001	500,000	Gallons	279,117	1	279.1
Over	500,000	Gallons	-	-	-
Total Monthly				22	602
Average Usage					27.36
Annual					7,221,900

4" Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	25,000	Gallons	-	-	0.0
25,001	100,000	Gallons	-	-	0.0
100,001	500,000	Gallons	-	-	0.0
Over	500,000	Gallons	2,225,533	1	2,225.5
Total Monthly				1	2,226
Average Usage					2,225.53
Annual					26,706,400

Wholesale Meter (Combined)

Water Usage			Average	No. of Users	Usage (1,000)
0	1,000	Gallons	1,016,635	6	6,099.8
Total Monthly				6	6,100
Average Usage					1,016.63
Annual					73,197,700

* 10% INCREASE IN SALES TO LYON INCREASES OVERALL WHOLESALE SALES BY APPROX. 1,000,000 GALLONS PER YEAR

XIII. FACILITY CHARACTERISTICS OF PROPOSED SEWER SYSTEM

A. Sewage Treatment: (NOT APPLICABLE)

1 Type N/A
 2 Method of Sludge Disposal N/A
 3 Cost per 1,000 gallons if sewage treatment is contracted: N/A

B. Treatment Capacity of Sewage Treatment Plant N/A

C. Type of Sewage Collector System (Describe) N/A

D. Number and Capacity of Sewage Lift Stations
N/A
N/A
N/A

E. Sewage Collection System: Additional Linear Feet

<u>SIZE</u>	<u>LENGTH (LF)</u>
8-INCH	<u>N/A</u>
6-INCH	<u>N/A</u>
10-INCH	<u>N/A</u>

XIV. LAND AND RIGHTS - PROPOSED SEWER SYSTEM

<i>Number of Treatment Plant Sites</i>	<u>N/A</u>	<i>ACRES</i>	
<i>Number of Pump Sites</i>	<u>N/A</u>	<i>ACRES</i>	<i>(DONE BY EASEMENT)</i>
<i>Number of Other Sites</i>	<u>N/A</u>	<i>ACRES</i>	<i>(DONE BY EASEMENT)</i>
<i>Total Acreage</i>	<u>N/A</u>	<i>ACRES</i>	
<i>Purchase Price</i>	<u>N/A</u>		

XV. FACILITY CHARACTERISTICS OF PROPOSED WATER SYSTEM

A. Water Storage: Additional Facilities

Elevated Storage Tank	<u>N/A</u>	gallons
Standpipe	<u>N/A</u>	gallons

Number of Storage Structures	<u>N/A</u>
Total Storage Volume / Capacity	

B. Water Distribution System: NO CHANGE

Pipe Material:	<u>PE</u>		
Lineal Feet of Pipe:	4"	<u>6,300</u>	<u> </u>
	6"	<u>7,900</u>	<u> </u>
	10"	<u> </u>	<u> </u>

C. Number and Capacity of Pump Station(s) 1 PS TRIPLEX CONFIG 100GPM

XVI. LAND AND RIGHTS - PROPOSED WATER SYSTEM

Number of Treatment Plant Sites	<u>N/A</u>
Number of Pump Sites	<u>0.5 ACRES</u>
Number of Other Sites (Storage)	<u>N/A</u>
Total Acreage	<u>0.5 ACRES</u>
Purchase Price	<u>N/A</u>

XVII. NUMBER OF NEW SEWER USERS (NOT APPLICABLE)

**XVIII. PROPOSED SEWER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION
(NOT APPLICABLE)**

XIX. NUMBER OF NEW WATER USERS (3% GROWTH ANNUALLY APPLIED TO 5/8" METER)

Total 5/8" METER 374

Number to Total Potential Users Living in the Service Area UNKNOWN

**XX. PROPOSED WATER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION:
(NO CHANGE)**

XXI. SEWER RATES – PROPOSED (NOT APPLICABLE)

XXII. WATER RATES – PROPOSED (5% FLAT RATE INCREASE TO ALL NON-WHOLESALE RATES)

A. Proposed Rate Schedule with RUS 25% Grant:

5/8" X 3/4" Meter					
First	2,000	Gallons	@	\$21.58	Minimum
Next	98,000	Gallons	@	\$7.27	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.91	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.32	per 1,000 Gallons.
1" Meter					
First	4,000	Gallons	@	\$36.11	Minimum
Next	96,000	Gallons	@	\$7.27	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.91	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.32	per 1,000 Gallons.
1-1/2" Meter					
First	8,000	Gallons	@	\$65.19	Minimum
Next	92,000	Gallons	@	\$7.27	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.91	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.32	per 1,000 Gallons.
2" Meter					
First	15,000	Gallons	@	\$116.09	Minimum
Next	85,000	Gallons	@	\$7.27	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.91	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.32	per 1,000 Gallons.
4" Meter					
First	25,000	Gallons	@	\$188.80	Minimum
Next	75,000	Gallons	@	\$7.27	per 1,000 Gallons.
Next	400,000	Gallons	@	\$5.91	per 1,000 Gallons.
Over	500,000	Gallons	@	\$4.32	per 1,000 Gallons.

Wholesale Rate (10% Increase) - \$ 2.45

XXIII. FORECAST OF SEWER USAGE - INCOME - EXISTING SYSTEM - EXISTING (NOT APPLICABLE)
USERS - EXISTING RATES

MULTI-FAMILY AND APARTMENT USER ANALYSIS - (NOT APPLICABLE)

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.

<u>Name of Unit</u>	<u>Number of Units</u>	<u>Number of Meters</u>	<u>Revenue Calculations</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

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

XXIV FORECAST OF SEWER USAGE - INCOME - NEW USERS - EXTENSION ONLY (NOT APPLICABLE)

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

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

1- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
1-1/2 Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
2- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
3- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
4- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
5- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	0	_____
6- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	<i>Sub-Total</i>	_____	_____	_____	_____	_____	_____	_____
				<i>TOTALS</i>	_____	_____	_____	_____	_____

MULTI-FAMILY AND APARTMENT USER ANALYSIS - (NOT APPLICABLE)

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.

<u>Name of Unit</u>	<u>Number of Units</u>	<u>Number of Meters</u>	<u>Revenue Calculations</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

			5/8" x 3/4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	2,000	Gallons	505	\$20.55	3,630	1,833,150	\$ 74,597
2,001	100,000	Gallons	5,856	\$ 47.23	2,107	12,338,592	\$ 99,521
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					5,737	14,171,742	\$ 174,118
Average Bill							\$ 30.35
Annual Usage/ Revenues						170,060,904	\$ 2,089,416

			1" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	4,000	Gallons	1,180	\$34.39	49	57,825	\$ 1,685
4,001	100,000	Gallons	13,666	\$ 101.28	29	396,317	\$ 2,937
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					78	454,142	\$ 4,622
Average Bill							\$ 59.26
Annual Usage/ Revenues						5,449,700	\$ 55,464

			1-1/2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	8,000	Gallons	1,331	\$62.09	4	5,325	\$ 248
8,001	100,000	Gallons	53,663	\$ 378.07	2	107,325	\$ 756
100,001	500,000	Gallons	467,792	\$2,769.40	1	467,792	\$ 2,769
Over	500,000	Gallons	-		-	-	\$ -
Total					7	580,442	\$ 3,774
Average Bill							\$ 539.13
Annual Usage/ Revenues						6,965,300	\$ 45,287

			2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	15,000	Gallons	2,497	\$110.56	17	42,450	\$ 1,880
15,001	100,000	Gallons	70,065	\$ 491.61	4	280,258	\$ 1,966
100,001	500,000	Gallons	279,117	\$1,707.19	1	279,117	\$ 1,707
Over	500,000	Gallons	-		-	-	\$ -
Total					22	601,825	\$ 5,553
Average Bill							\$ 252.42
Annual Usage/ Revenues						7,221,900	\$ 66,638

			4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	25,000	Gallons	-		-	-	\$ -
25,001	100,000	Gallons	-		-	-	\$ -
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	2,225,533	\$10,042.75	1	2,225,533	\$ 10,043
Total					1	2,225,533	\$ 10,043
Average Bill							\$ 10,043.00
Annual Usage/ Revenues						26,706,400	\$ 120,516

			Wholesale Customers (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
Over	1,000	Gallons	1,002,746	\$2,236.12	6	6,016,475	\$ 13,417
Total					6	6,016,475	\$ 13,417
Average Bill							\$ 2,236.12
Annual Usage/ Revenues						72,197,700	\$ 161,001

XXVI. FORECAST OF WATER USAGE - INCOME - EXISTING SYSTEM - 3.21 % GROWTH RESIDENTIAL CUSTOMERS & 10% GROWTH LYON COUNTY WHOLESALE SALES - EXISTING RATES

			5/8" x 3/4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	2,000	Gallons	505	\$20.55	3,862	1,950,472	\$ 79,371
2,001	100,000	Gallons	5,856	\$ 47.23	2,249	13,170,144	\$ 106,228
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					6,111	15,120,616	\$ 185,599
Average Bill							\$ 30.37
Annual Usage/ Revenues						181,447,387	\$ 2,227,188

			1" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	4,000	Gallons	1,180	\$34.39	49	57,825	\$ 1,685
4,001	100,000	Gallons	13,666	\$ 101.28	29	396,317	\$ 2,937
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					78	454,142	\$ 4,622
Average Bill							\$ 59.26
Annual Usage/ Revenues						5,449,700	\$ 55,464

			1-1/2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	8,000	Gallons	1,331	\$62.09	4	5,325	\$ 248
8,001	100,000	Gallons	53,663	\$ 378.07	2	107,325	\$ 756
100,001	500,000	Gallons	279,117	\$1,707.16	1	467,792	\$ 1,707
Over	500,000	Gallons	-		-	-	\$ -
Total					7	580,442	\$ 2,712
Average Bill							\$ 387.38
Annual Usage/ Revenues						6,965,300	\$ 32,540

			2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	15,000	Gallons	2,497	\$110.56	17	42,450	\$ 1,880
15,001	100,000	Gallons	70,065	\$ 491.61	4	280,258	\$ 1,966
100,001	500,000	Gallons	279,117	\$1,707.19	1	279,117	\$ 1,707
Over	500,000	Gallons	-		-	-	\$ -
Total					22	601,825	\$ 5,553
Average Bill							\$ 252.42
Annual Usage/ Revenues						7,221,900	\$ 66,638

			4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	25,000	Gallons	-		-	-	\$ -
25,001	100,000	Gallons	-		-	-	\$ -
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	2,225,533	\$10,049.94	1	2,225,533	\$ 10,050
Total					1	2,225,533	\$ 10,050
Average Bill							\$ 10,050.00
Annual Usage/ Revenues						26,706,400	\$ 120,600

Total Combined Annual Revenue from Meter Sales FYE 2017 \$ 2,502,429.60

			Wholesale Customers (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	1,000	Gallons	1,016,635	\$2,267.10	6	6,099,808.33	\$ 13,603
Total					6	6,099,808	\$ 13,603
Average Bill							\$ 2,267.10
Annual Usage/ Revenues						73,197,700	\$ 163,231

XXVII FORECAST OF WATER USAGE - INCOME - EXISTING SYSTEM - 3.2 % ANNUAL GROWTH RESIDENTIAL CUSTOMERS & 10% GROWTH LYON COUNTY WHOLESALE SALES - PROPOSED RATES

			5/8" x 3/4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	2,000	Gallons	505	\$21.58	3,862	1,950,472	\$ 83,339
2,001	100,000	Gallons	5,856	\$ 49.61	2,249	13,170,144	\$ 111,574
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					6,111	15,120,616	\$ 194,913
Average Bill							\$ 31.89
Annual Usage/ Revenues						181,447,387	\$ 2,338,956

			1" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	4,000	Gallons	1,180	\$36.11	49	57,825	\$ 1,769
4,001	100,000	Gallons	13,666	\$ 106.38	29	396,317	\$ 3,085
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	-		-	-	\$ -
Total					78	454,142	\$ 4,854
Average Bill							\$ 62.23
Annual Usage/ Revenues						5,449,700	\$ 58,248

			1-1/2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	8,000	Gallons	1,331	\$65.19	4	5,325	\$ 261
8,001	100,000	Gallons	53,663	\$ 397.16	2	107,325	\$ 794
100,001	500,000	Gallons	279,117	\$1,792.61	1	46,792	\$ 1,793
Over	500,000	Gallons	-		-	-	\$ -
Total					7	159,442	\$ 2,848
Average Bill							\$ 406.82
Annual Usage/ Revenues						1,913,304	\$ 34,173

			2" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	15,000	Gallons	2,497	\$116.09	17	42,450	\$ 1,973
15,001	100,000	Gallons	70,065	\$ 516.41	4	280,258	\$ 2,066
100,001	500,000	Gallons	279,117	\$1,792.62	1	279,117	\$ 1,793
Over	500,000	Gallons	-		-	-	\$ -
Total					22	601,825	\$ 5,832
Average Bill							\$ 265.08
Annual Usage/ Revenues						7,221,900	\$ 69,981

			4" Meter (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	25,000	Gallons	-		-	-	\$ -
25,001	100,000	Gallons	-		-	-	\$ -
100,001	500,000	Gallons	-		-	-	\$ -
Over	500,000	Gallons	2,225,533	\$10,552.35	1	2,225,533	\$ 10,552
Total					1	2,225,533	\$ 10,552
Average Bill							\$ 10,552.00
Annual Usage/ Revenues						26,706,400	\$ 126,624

Total Combined Annual Revenue from Meter Sales FYE 2017 \$ 2,627,981.49

			Wholesale Customers (Combined)				
			Average	Average Rate	No. of Users	Usage	Monthly Income
0	1,000	Gallons	1,016,635	\$2,490.76	6	6,099,808.33	\$ 14,945
Total					6	6,099,808	\$ 14,945
Average Bill							\$ 2,490.76
Annual Usage/ Revenues						73,197,700	\$ 179,334

2,807,316

MULTI-FAMILY AND APARTMENT USER ANALYSIS - (NOT APPLICABLE)

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 Number Number Revenue
of Unit of Units of Meters Calculations

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

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

XXVII FORECAST OF WATER USAGE - INCOME - NEW USERS - EXTENSION ONLY-
 (No New Sewer Customers)

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

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

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

1- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
1-1/2 Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
2- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
3- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
4- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
5- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
6- Inch	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	Sub-Total	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
	TOTALS	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

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
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

XXVIII. CURRENT OPERATING BUDGET - NOT APPLICABLE

***XXIV. PROPOSED OPERATING BUDGET - (SEWER SYSTEM) - EXISTING SYSTEM
AND NEW USERS NOT APPLICABLE***

XXX. CURRENT OPERATING BUDGET - (WATER SYSTEM TAKEN FROM FYE AUDIT 2017)

A. Operating Income:		
Water Sales	\$	2,535,742
Disconnect/Reconnect/Late Charge Fees / Miscellaneous		33,550
Total Operating Income	\$	<u>2,569,292</u>
B. Operation and Maintenance Expenses:		
Salaries and Benefits	\$	1,276,474
Purchase Power	\$	178,721
Chemicals	\$	110,333
Materials and Supplies	\$	204,173
Contract Services	\$	44,207
Transportation Services	\$	51,137
Insurance	\$	36,564
Miscellaneous	\$	16,959
Taxes	\$	60,048
Total Operating Expenses	\$	<u>1,978,616</u>
Net Operating Income	\$	590,676
C. Non-Operating Income:		
Interest Income	\$	11,144
Federal Interest Subsidy	\$	16,772
Total Non-Operating Income	\$	<u>27,916</u>
D. Net Income	\$	618,592
E. Long Term Debt Repayment:		
Principal	\$	281,218
Interest	\$	388,643
Total	\$	<u>669,861</u>
F. Balance Available for Coverage	\$	(51,269)

XXXI. PROPOSED OPERATING BUDGET - (WATER SYSTEM) - EXISTING SYSTEM

EXISTING RATES - EXISTING CUSTOMERS 3.21% Residential annual growth and 10% growth in wholesale sales to Lyon County (1st Full Year of Operation Year Ending 2020)

A. Operating Income:		
Water Sales (Audit shows 3.21 % Increase: assumed more modest 1% growth over 2 year period plus 10% increase in wholesale sales to Lyon County)	\$	2,665,660
Disconnect/Reconnect/Late Charge Fees / Miscellaneous		33,000
Total Operating Income	\$	<u>2,698,660</u>
B. Operation and Maintenance Expenses:		
Salaries and Benefits	\$	1,353,062
Purchase Power	\$	189,444
Chemicals	\$	116,953
Materials and Supplies	\$	216,423
Contract Services	\$	46,859
Transportation Services	\$	54,205
Insurance	\$	38,758
Miscellaneous	\$	17,977
Taxes	\$	61,849
Total Operating Expenses	\$	<u>2,095,532</u>
Net Operating Income	\$	<u>603,129</u>
C. Non-Operating Income:		
Interest Income	\$	10,000
Federal Interest Subsidy		
Total Non-Operating Income	\$	<u>10,000</u>
D. Net Income	\$	613,129
E. Long Term Debt Repayment:		
Principal	\$	305,000
Interest	\$	<u>365,271</u>
	\$	670,271
F. New RD Loan and Interest Payment (75/25 @ 4.25%)	\$	27,250
G. Short Lived Assets	\$	35,000
H. Balance Available for Coverage	\$	(119,392)

**XXXII. PROPOSED OPERATING BUDGET - (WATER SYSTEM) - EXISTING SYSTEM -
EXISTING CUSTOMERS - RECOMMENDED RATES (1st Full Year of Operation Ending 2020)
(NOT APPLICABLE)**

A. Operating Income:	
Water Sales (Audit shows 3.21 % Increase: assumed more modest 1% growth over 2 year period plus 10% increase in wholesale sales to Lyon County)	\$ 2,807,316
Disconnect/Reconnect/Late Charge Fees / Miscellaneous	33,000
Total Operating Income	<u>\$ 2,840,316</u>
B. Operation and Maintenance Expenses:	
Salaries and Benefits	\$ 1,353,062
Purchase Power	\$ 189,444
Chemicals	\$ 116,953
Materials and Supplies	\$ 216,423
Contract Services	\$ 46,859
Transportation Services	\$ 54,205
Insurance	\$ 38,758
Miscellaneous	\$ 17,977
Taxes	\$ 61,849
Total Operating Expenses	<u>\$ 2,095,532</u>
Net Operating Income	\$ 744,784
C. Non-Operating Income:	
Interest Income	\$ 10,000
Federal Interest Subsidy	
Total Non-Operating Income	<u>\$ 10,000</u>
D. Net Income	\$ 754,784
E. Long Term Debt Repayment:	
Principal	\$ 305,000
Interest	\$ 365,271
	<u>\$ 670,271</u>
F. New RD Loan and Interest Payment (75/25 @ 4.25%)	\$ 27,250
G. Short Lived Assets	\$ 35,000
H. Balance Available for Coverage	\$ 22,263

XXXIII. ESTIMATED PROJECT COST - NOT APPLICABLE

XXXIV. PROPOSED PROJECT FUNDING - SEWER (NOT APPLICABLE)

XXXV. ESTIMATED PROJECT COST - WATER

	<u>Total</u>
Development (Admin and Planning)	10,000
Land and Rights	25,000
Legal	15,000
Engineering	118,588
Construction	596,908
Interest	
Contingencies	59,394
Other	30,000
	-
TOTAL	<u>854,890</u>

XXXVI. PROPOSED PROJECT FUNDING

Applicant - User Connection Fees	-
Other Applicant Contribution	-
RUS Loan	\$ 641,168
RUS Grant	\$ 213,723
ARC Grant (If applicable)	
CDBG (If applicable)	-
Other (Specify)	-
Other (Specify)	-
	-
TOTAL	<u>\$ 854,890</u>