SUMMARY ADDENDUM
TO
PRELIMINARY ENGINEERING REPORT

Date **April 2, 2020**

FOR

MCWD Marsh Creek Road Waterline Replacement
(NAME OF PROJECT)

APPLICANT CONTACT PERSON **Stephen Whitaker, Superintendent**

APPLICANT PHONE NUMBER **(606) – 376 - 2540**

APPLICANT TAX IDENTIFICATION NUMBER (TIN) **61 - 0654526**

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 project will include the installation of 30,633 LF of 6-inch PVC waterline, 162 LF of 12-inch PVC waterline, approximately 415 total LF of 2, 3, and 4-inch waterline, 1,563 LF of ¾-inch HDPE waterline, 572 LF of 1 ½-inch HDPE Casing Pipe (directional bore), 134 LF of 4-inch HDPE casing pipe (directional bore), 30 LF of 6-inch steel casing pipe (bore and jack), 24 LF of 12-inch steel casing pipe (bore and jack), 150 LF of 6-inch HDPE waterline for creek crossing (directional bore), 13 fire hydrant assembles, and related appurtenances.

II. FACILITY CHARACTERISTICS OF EXISTING SEWER SYSTEM

A. Sewage Treatment:

1. Type _Extended Aeration Activated Sludge_____

2. Method of Sludge Disposal _Landfarm / Landfill_____

3. Cost per 1,000 gallons if sewage is contracted: $ _____

4. Date Constructed _2002_____

B. Treatment Capacity of Sewage Treatment Plant _0.90 MGD_____

C. Type of Sewage Collector System (Describe) __Conventional gravity_____

_with majority of customers served by low pressure grinder system_____

D. Number and Capacity of Sewage Lift Stations 15 w/ capacity of 2,900____

GPM_____

E. Sewage Collection System:

Lineal Feet of Collector Lines, by Size 2" - 2,227 3" - 10,992
4" - 5,678 6" - 1,025 8" - 616

Date(s) Constructed 1990s, 2000s, 2010s_____

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.

The wastewater treatment plant is in good condition. The chemical feed building is crowded as does not meet regulatory standards for chemical containment and operator accessibility. A current RD project includes improvements to the chemical feed systems.

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 raw water source is Laurel Creek Reservoir for Water Treatment Plant A and Big South Fork Cumberland River for Water Treatment Plant B. The quantity and quality are adequate. The rated capacity of WTP A is 1.5 MGD and the rated capacity of WTP B is 3.0 MGD. The total average daily production is approximately 2.0 MGD.

If the applicant purchases water:

Seller(s);

1. N/A

Price/1,000 gallons:

1. N/A

Present Estimated Market Value of Existing System: $ **27,369,410**

B. Water Storage:

Type: Ground Storage Tank _____ Elevated Tank **10**

Standpipe **2** Other _____

Number of Storage Structures **12**

Total Storage Volume Capacity **2,700,000 Gallons**

Date Storage Tank(s) Constructed **1980's, 1990's, 2000's**

C. Water Distribution System:

Pipe Material **AC, PVC, DI**

Lineal Feet of Pipe: 2" & 3" _____ _____

Diameter			
	150,000	4”	**497,000**
6”	**325,000**	8”	**94,000**
10”	**35,500**	12”	**9,700**
16”	**26,000**	18”	**29,000**

All pipe footage is an estimate only.

Date(s) Water Lines Constructed **1960 - Present**

Number and Capacity of Pump Station(s) **7; total of approximately 3,500 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 McCreary County Water District’s system is in fair condition. Renovations/upgrades over the next five to ten years will continue to improve the older, undersized sections of the system and provide a safe, reliable source of drinking water to the customers.

E. Percentage of Water Loss Existing System 13%

IV. EXISTING LONG-TERM INDEBTEDNESS

A. List of Bonds and Notes:

Water District

Date of Issue	Bond/Note Holder	Principle Balance	Payment Date	Bond Type Water/Sewer*		Amount on Deposit in Reserve Account
2005 Issue	USDA RD	$654,500	Annual	100/0	%	4.125 %
2008 Issue	USDA RD	$295,800	Annual	100/0	%	4.125 %
2008 Issue	USDA RD	$136,500	Annual	100/0	%	4.125 %
2012 Issue	USDA RD	$2,885,000	Annual	100/0	%	Variable
2012 Issue	USDA RD	$1,257,500	Annual	100/0	%	Variable
2013 Issue	USDA RD	$613,000	Annual	100/0	%	1.875 %
2013 Issue	USDA RD	$1,145,000	Annual	100/0	%	Variable
2015 Issue	USDA RD	$1,158,000	Annual	100/0	%	2.50 %
KIA F04-03		$727,549	Annual	100/0	%	1.00 %
Ricoh Finance		$2,994		100/0	%	12.75 %

Sewer District

Date of Issue	Bond/Note Holder	Principle Balance	Payment Date	Bond Type Water/Sewer*		Amount on Deposit in Reserve Account
2005 Issue	USDA RD	$252,500	Annual	0/100	%	4.125 %
2012 Issue	USDA RD	$1,435,000	Annual	0/100	%	Variable
	United Cumberland Bank	$10,484		0/100	%	6.00 %

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

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

		Payment Year **2018**		Payment Year **2019**		Payment Year **2020**	
Date of Issue	Bond/Note Holder	Principle Payment	Interest Payment	Principle Payment	Interest Payment	Principle Payment	Interest Payment
Water District							
2005 Issue	USRD	$13,200	$26,186	$13,800	$25,641	$14,400	$25,072
2008 Issue	USRD	$5,100	$12,000	$5,300	$11,789	$5,500	$11,571
2008 Issue	USRD	$2,300	$5,536	$2,400	$5,441	$2,500	$5,342
2012 Issue	USRD	$38,000	$33,563	$39,000	$32,850	$40,000	$32,119
2012 Issue	USRD	$95,000	$102,791	$100,000	$99,671	$100,000	$96,471
2013 Issue	USRD	$12,000	$11,231	$13,000	$11,006	$13,000	$10,763
2013 Issue	USRD						
2015 Issue	USRD	$16,000	$28,950	$16,500	$28,950	$17,000	$28,475
F04-03	KIA	$74,114	$80,471	$74,857	$80,471	$75,607	$80,471
CD2-01	KIA	$42,300	$14,721	$42,700	$14,298	$43,200	$13,871
Total		$337,369	$244,437	$345,349	$236,513	$353,438	$228,378
Sewer District							
2005 Issue	USRD	5,000	11,160	5,000	10,935	5,500	10,710
2012 Issue	USRD	45,000	51,254	45,000	49,814	50,000	48,294
Total		$50,000	$62,414	$50,000	$60,749	$55,500	$59,004

V. EXISTING SHORT-TERM INDEBTEDNESS

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

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

VI. LAND AND RIGHTS - EXISTING SYSTEM(S)

Number of Treatment Plant Sites:	Water	**2**	***Sewer***	***1***
Number of Storage Tank Sites:	Water	**12**	***Sewer***	
Number of Pump Stations:	Water	**5**	***Sewer***	***15***
Total Acreage:	Water	**10 Acres**	***Sewer***	***6 Acres***
Purchase Price:	Water	**$**	***Sewer***	***$***

VII. NUMBER OF EXISTING USERS

	Water	***Sewer***
Residential (In Town)*		
Residential (Out of Town)*	**5,817**	**1,120**
Non-Residential (In Town)		
Non-Residential (Out of Town)	**342**	**1**
Total	**6,159**	**1,121**
Number to Total Potential Users Living in the Service Area	**6,300**	**1,250**

*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

Meter Size	Water Connection Fee	Sewer Connection Fee
5/8" x 3/4"	**$800.00 (Residential)**	***$ Actual Cost***
All Larger	**Actual Cost**	***$***

IX. SEWER RATES - EXISTING SYSTEM ***N/A***

Residential & Non-Residential		
First 2,000	$24.19	minimun
Next 18,000	$8.44	per 1000 gallons
All over 20,000	$7.50	per 1000 gallons
First 1,300,000	$9,703.13	
Over 1,300,000	$8.44	per 1000 gallons

Date this rate went into effect August 29, 2019

X. WATER RATES - EXISTING SYSTEM

Existing Rate Schedule:

First 2,000	$21.98	Minimum Bill
All over 2,000	$7.29	Per 1,000 gallons
Federal Correctional Facility		
First 1,950,000	$14,215.50	Minimum Bill
All Over 1,950,000	$7.29	Per 1,000 gallons
Riverwoods		
First 450,000	$2,008.80	Minimum Bill
All Over 450,000	$7.29	Per 1,000 gallons
Cumberland Falls State Park		
First 600,000	$2,808.00	Minimum Bill
All Over 600,000	$4.59	Per 1,000 gallons
Whitley County Water District		
	$3.76	Per 1,000 gallons

Date this rate went into effect August 29, 2019

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

For Period 01/01/2019 to 12/31/2019

Monthly Sewer Usage	Average	Residential & Non-Residential No. of Users	Usage 1,000
5/8 x 3/4 meter			
0 - 2,000 Gal.	994	451	448
2,100 - 3,000 Gal.	2,527	194	490
3,100 - 4,000 Gal.	3,518	158	555
4,100 - 5,000 Gal.	4,519	104	469
5,100 - 6,000 Gal.	5,500	69	379
6,100 - 7,000 Gal.	6,496	39	255
7,100 - 8,000 Gal.	7,523	27	206
8,100 - 9,000 Gal.	8,532	17	149
9,100 - 10,000 Gal.	9,554	14	131
10,100 - 11,000 Gal.	10,470	10	106
11,100 - 12,000 Gal.	11,500	6	66
12,100 - 13,000 Gal.	12,552	5	61
13,100 - 14,000 Gal.	13,546	3	46
14,100 - 15,000 Gal.	14,528	3	48
15,100 - 16,000 Gal.	15,578	3	48
16,100 - 17,000 Gal.	16,572	2	40
17,100 - 18,000 Gal.	17,543	3	44
18,100 - 19,000 Gal.	18,441	2	41
19,100 - 20,000 Gal.	19,705	2	31
20,100 - 25,000 Gal.	22,263	6	130
25,100 - 30,000 Gal.	27,394	4	116
30,100 - 35,000 Gal.	32,086	2	75
35,100 - 40,000 Gal.	37,283	3	112
40,100 - 45,000 Gal.	42,497	3	113
45,100 - 50,000 Gal.	47,600	1	67
50,100 - 55,000 Gal.	52,723	1	57
55,100 - 60,000 Gal.	57,495	2	91
60,100 - 65,000 Gal.	62,475	1	83
65,100 - 70,000 Gal.	67,737	2	107
70,100 - 75,000 Gal.	73,140	1	61
75,100 - 100,000 Gal.	87,260	4	313
100,100 - 150,000 Gal.	122,254	3	418
150,100 - 200,000 Gal.	169,468	2	268
200,100 - 250,000 Gal.	220,667	1	110
250,100 & Over Gal.	595,934	3	1738
Prison Usage	3,929,358	1	3929
	Subtotal	1151	11,404
Average Monthly Usage			9,908
	Totals	**1151**	**11,404**

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

For Period 01/01/2019 to 12/31/2019 .

Monthly Water Usage		Residential & Non-Residential		Federal Prison		Cumberland Falls State Park		Whitley County Water	
	Average Usage	No. of Users	Usage 1,000	No. of Users	Usage 1,000	No. of Users	Usage 1,000	No. of Users	Usage 1,000
5/8 x 3/4 meter									
0 - 2,000 Gal.	929	2,457	2,284						
2,100 - 3,000 Gal.	2,540	1,100	2,795						
3,100 - 4,000 Gal.	3,526	892	3,147						
4,100 - 5,000 Gal.	4,514	627	2,830						
5,100 - 6,000 Gal.	5,512	411	2,268						
6,100 - 7,000 Gal.	6,519	261	1,703						
7,100 - 8,000 Gal.	7,518	167	1,257						
8,100 - 9,000 Gal.	8,528	112	952						
9,100 - 10,000 Gal.	9,541	75	713						
10,100 - 11,000 Gal.	10,527	54	568						
11,100 - 12,000 Gal.	11,538	36	417						
12,100 - 13,000 Gal.	12,544	27	335						
13,100 - 14,000 Gal.	13,527	21	277						
14,100 - 15,000 Gal.	14,528	16	236						
15,100 - 16,000 Gal.	15,545	13	198						
16,100 - 17,000 Gal.	16,572	11	185						
17,100 - 18,000 Gal.	17,541	10	168						
18,100 - 19,000 Gal.	18,498	8	139						
19,100 - 20,000 Gal.	19,566	6	124						
20,100 - 25,000 Gal.	22,160	21	473						
25,100 - 30,000 Gal.	27,421	11	308						
30,100 - 35,000 Gal.	32,156	7	214						
35,100 - 40,000 Gal.	37,231	6	239						
40,100 - 45,000 Gal.	42,143	5	204						
45,100 - 50,000 Gal.	47,359	3	126						
50,100 - 55,000 Gal.	52,743	2	92						
55,100 - 60,000 Gal.	57,789	3	169						
60,100 - 65,000 Gal.	62,222	2	119						
65,100 - 70,000 Gal.	67,773	3	186						
70,100 - 75,000 Gal.	73,000	1	97						
75,100 - 100,000 Gal.	87,305	7	575						
100,100 - 150,000 Gal.	119,402	5	577						
150,100 - 200,000 Gal.	169,785	2	283						
200,100 - 250,000 Gal.	220,667	1	110						
250,100 & Over Gal.	607,977	3	1,976	1	4,351	1	774	1	576
	Subtotal	6,385	26,345	1	4,351	1	774	1	576
Average Monthly Usage			4,126		4,351		774		576

XIII. FACILITY CHARACTERISTICS OF PROPOSED SEWER SYSTEM

NOT APPLICABLE

XIV. LAND AND RIGHTS - PROPOSED SEWER SYSTEM

NOT APPLICABLE

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.

Water Supply described in Section III-A

B. Water Storage:

Type: Ground Storage Tank _____ Elevated Tank _____

Standpipe _____ Other _____

Number of Storage Structures _____

Total Storage Volume Capacity _____

C. Water Distribution System:

Pipe Material **PVC and DI**

Lineal Feet of Pipe:				
3" Diameter	**69**	4"	**183**
6"	**30,783**	8"	
10"		12"	**161**
20"			

Number and Capacity of Pump Station(s) _____

XVI. LAND AND RIGHTS - PROPOSED WATER SYSTEM

Number of Treatment Plant Sites	**0**
Number of Storage Tank Sites	**0**
Number of Pump Stations	**0**
Total Acreage	**0**
Purchase Price	**0**

XVII. NUMBER OF NEW SEWER 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.

XVIII. PROPOSED SEWER CONNECTION FEES FOR EACH SIZE WATER METER CONNECTION

NOT APPLICABLE

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

Meter Size	Connection Fee
5/8" x 3/4"	$ 800.00
1-Inch	$ Actual Cost
1-1/2 Inch	$ Actual Cost
2-Inch	$ Actual Cost
3-Inch	$
4-Inch	$
5-Inch	$
6-Inch	$

XXI. SEWER RATES – PROPOSED **NOT APPLICABLE**

A. Proposed Rate Schedule without RUS Grant:

In Gallons	2019 Existing Rates	Proposed Rates
First 2,000	$24.19	$24.19
Next 18,000	$8.44	$8.44
All Over 20,000	$7.50	$7.50

Federal Correctional Facility		
First 1,300,000	$9,703.13	$9,703.13
All Over 1,300,000	$8.44	$8.44

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:

In Gallons	2019 Existing Rates	Proposed Rates
First 2,000	$24.19	$24.19
Next 18,000	$8.44	$8.44
All Over 20,000	$7.50	$7.50

Federal Correctional Facility		
First 1,300,000	$9,703.13	$9,703.13
All Over 1,300,000	$8.44	$8.44

XXII. WATER RATES - PROPOSED

A. Proposed Rate Schedule without RUS Grant:

In Gallons	2019 Existing Rates	Proposed Rates
First 2,000	$21.98	$22.50
Over 2,000	$7.29	$9.25

Federal Correctional Facility		
First 1,950,000	$14,215.50	$14,215.50
All Over 1,950,000	$7.29	$7.29

Cumberland Falls State Park		
First 600,000	$2,808.00	$4,374.00
All Over 600,000	$4.59	$7.29

Fibrotex USA		
Per 1,000 Gal	$7.29	$7.29

Pine Knot Job Corps Center		
Per 1,000 Gal	$7.29	$7.29

McCreary County Housing Authority		
Per 1,000 Gal	$7.29	$7.29

City of Onieda, TN		
Per 1,000 Gal	$3.76	$7.29

Whitley County Water District		
Per 1,000 Gal	$3.76	$7.29

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:

In Gallons	2019 Existing Rates	Proposed Rates
First 2,000	$21.98	$22.50
Over 2,000	$7.29	$9.25

Federal Correctional Facility		
First 1,950,000	$14,215.50	$14,215.50
All Over 1,950,000	$7.29	$7.29

Cumberland Falls State Park		
First 600,000	$2,808.00	$4,374.00
All Over 600,000	$4.59	$7.29

Fibrotex USA		
Per 1,000 Gal	$7.29	$7.29

Pine Knot Job Crops Center		
Per 1,000 Gal	$7.29	$7.29

McCreary County Housing Authority		
Per 1,000 Gal	$7.29	$7.29

City of Oneida, TN		
Per 1,000 Gal	$3.76	$7.29

Whitley County Water District		
Per 1,000 gallons	$3.76	$7.29

XXIII. FORECAST OF SEWER USAGE - INCOME - EXISTING SYSTEM - EXISTING USERS

NOT APPLICABLE

Monthly Sewer Usage			Residential & Non-Residential		
	Average	Average Rate	No. of Users	Usage 1,000	Income
5/8 x 3/4 meter					
0 - 2,000 Gal.	994	$ 24.19	451	448	$ 10,899.61
2,100 - 3,000 Gal.	2,527	$ 28.64	194	490	$ 5,556.20
3,100 - 4,000 Gal.	3,518	$ 37.01	158	555	$ 5,834.49
4,100 - 5,000 Gal.	4,519	$ 45.45	104	469	$ 4,719.49
5,100 - 6,000 Gal.	5,500	$ 53.73	69	379	$ 3,698.13
6,100 - 7,000 Gal.	6,496	$ 62.13	39	255	$ 2,443.88
7,100 - 8,000 Gal.	7,523	$ 70.81	27	206	$ 1,935.35
8,100 - 9,000 Gal.	8,532	$ 79.32	17	149	$ 1,381.43
9,100 - 10,000 Gal.	9,554	$ 87.95	14	131	$ 1,209.25
10,100 - 11,000 Gal.	10,470	$ 95.68	10	106	$ 972.76
11,100 - 12,000 Gal.	11,500	$ 104.37	6	66	$ 600.13
12,100 - 13,000 Gal.	12,552	$ 113.25	5	61	$ 547.36
13,100 - 14,000 Gal.	13,546	$ 121.64	3	46	$ 415.61
14,100 - 15,000 Gal.	14,528	$ 129.92	3	48	$ 433.07
15,100 - 16,000 Gal.	15,578	$ 138.79	3	48	$ 427.94
16,100 - 17,000 Gal.	16,572	$ 147.18	2	40	$ 355.69
17,100 - 18,000 Gal.	17,543	$ 155.38	3	44	$ 388.44
18,100 - 19,000 Gal.	18,441	$ 162.95	2	41	$ 366.64
19,100 - 20,000 Gal.	19,705	$ 173.62	2	31	$ 274.90
20,100 - 25,000 Gal.	22,263	$ 193.08	6	130	$ 1,126.31
25,100 - 30,000 Gal.	27,394	$ 231.57	4	116	$ 984.16
30,100 - 35,000 Gal.	32,086	$ 266.75	2	75	$ 622.42
35,100 - 40,000 Gal.	37,283	$ 305.74	3	112	$ 917.21
40,100 - 45,000 Gal.	42,497	$ 344.84	3	113	$ 919.56
45,100 - 50,000 Gal.	47,600	$ 383.11	1	67	$ 542.74
50,100 - 55,000 Gal.	52,723	$ 421.53	1	57	$ 456.66
55,100 - 60,000 Gal.	57,495	$ 457.32	2	91	$ 724.09
60,100 - 65,000 Gal.	62,475	$ 494.67	1	83	$ 659.56
65,100 - 70,000 Gal.	67,737	$ 534.14	2	107	$ 845.72
70,100 - 75,000 Gal.	73,140	$ 574.66	1	61	$ 478.88
75,100 - 100,000 Gal.	87,260	$ 680.56	4	313	$ 2,438.69
100,100 - 150,000 Gal.	122,254	$ 943.01	3	418	$ 3,221.96
150,100 - 200,000 Gal.	169,468	$ 1,297.12	2	268	$ 2,053.78
200,100 - 250,000 Gal.	220,667	$ 1,681.11	1	110	$ 840.56
250,100 & Over Gal.	595,934	$ 4,495.62	3	1738	$ 13,112.22
Prison Usage	3,929,358	$ 31,894.91	1	3929	$ 31,894.91
	Subtotal		1151	11,404	$ 104,299.78
Average Monthly Rate		90.62			
Average Monthly Usage				9,908	
	Totals		**1151**	**11,404**	**$ 104,299.78**
Annual Total:					**$ 1,251,597.40**

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

NOT APPLICABLE

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

ATTACHED ON FOLLOWING PAGE

Monthly Water Usage

	Average				Average Rate				Residential & Non-Residential			Federal Prison			Cumberland Falls State Park			Whitley County Water District		
	Res & Non-Res	Federal Prison	Cumb Falls State Park	Whitley Co Water	Res & Non-Res	Federal Prison	Cumb Falls State Park	Whitley Co Water	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income
0 - 2000 Gal.	929				$ 21.98				2,457	2,283	54,010	0	0	0	0	0	0	0	0	0
2100 - 3000 Gal.	2,540				$ 25.92				1,100	2,795	28,515	0	0	0	0	0	0	0	0	0
3100 - 4000 Gal.	3,526				$ 33.10				892	3,146	29,540	0	0	0	0	0	0	0	0	0
4100 - 5000 Gal.	4,514				$ 40.31				627	2,830	25,269	0	0	0	0	0	0	0	0	0
5100 - 6000 Gal.	5,512				$ 47.58				411	2,268	19,576	0	0	0	0	0	0	0	0	0
6100 - 7000 Gal.	6,519				$ 54.92				261	1,703	14,344	0	0	0	0	0	0	0	0	0
7100 - 8000 Gal.	7,518				$ 62.21				167	1,257	10,399	0	0	0	0	0	0	0	0	0
8100 - 9000 Gal.	8,528				$ 69.57				112	952	7,769	0	0	0	0	0	0	0	0	0
9100 - 10000 Gal.	9,541				$ 76.95				75	713	5,752	0	0	0	0	0	0	0	0	0
10100 - 11000 Gal.	10,527				$ 84.14				54	568	4,544	0	0	0	0	0	0	0	0	0
11100 - 12000 Gal.	11,538				$ 91.51				36	417	3,310	0	0	0	0	0	0	0	0	0
12100 - 13000 Gal.	12,544				$ 98.85				27	335	2,636	0	0	0	0	0	0	0	0	0
13100 - 14000 Gal.	13,527				$ 106.01				21	277	2,173	0	0	0	0	0	0	0	0	0
14100 - 15000 Gal.	14,528				$ 113.31				16	236	1,841	0	0	0	0	0	0	0	0	0
15100 - 16000 Gal.	15,545				$ 120.72				13	198	1,539	0	0	0	0	0	0	0	0	0
16100 - 17000 Gal.	16,572				$ 128.21				11	185	1,432	0	0	0	0	0	0	0	0	0
17100 - 18000 Gal.	17,541				$ 135.27				10	168	1,296	0	0	0	0	0	0	0	0	0
18100 - 19000 Gal.	18,498				$ 142.25				8	139	1,067	0	0	0	0	0	0	0	0	0
19100 - 20000 Gal.	19,566				$ 150.04				6	124	950	0	0	0	0	0	0	0	0	0
20100 - 25000 Gal.	22,160				$ 168.95				21	473	3,604	0	0	0	0	0	0	0	0	0
25100 - 30000 Gal.	27,421				$ 207.30				11	308	2,332	0	0	0	0	0	0	0	0	0
30100 - 35000 Gal.	32,156				$ 241.82				7	214	1,612	0	0	0	0	0	0	0	0	0
35100 - 40000 Gal.	37,231				$ 278.81				6	239	1,789	0	0	0	0	0	0	0	0	0
40100 - 45000 Gal.	42,143				$ 314.62				5	204	1,521	0	0	0	0	0	0	0	0	0
45100 - 50000 Gal.	47,359				$ 352.65				3	126	940	0	0	0	0	0	0	0	0	0
50100 - 55000 Gal.	52,743				$ 391.90				2	92	686	0	0	0	0	0	0	0	0	0
55100 - 60000 Gal.	57,789				$ 428.68				3	169	1,250	0	0	0	0	0	0	0	0	0
60100 - 65000 Gal.	62,222				$ 461.00				2	119	884	0	0	0	0	0	0	0	0	0
65100 - 70000 Gal.	67,773				$ 501.47				3	186	1,379	0	0	0	0	0	0	0	0	0
70100 - 75000 Gal.	73,000				$ 539.57				1	97	719	0	0	0	0	0	0	0	0	0
75100 - 100000 Gal.	87,305				$ 643.85				7	575	4,239	0	0	0	0	0	0	0	0	0
100100 - 150000 Gal.	119,402				$ 877.84				5	577	4,243	0	0	0	0	0	0	0	0	0
150100 - 200000 Gal.	169,785				$ 1,245.13				2	283	2,075	0	0	0	0	0	0	0	0	0
200100 - 250000 Gal.	220,667				$ 1,616.06				1	110	808	0	0	0	0	0	0	0	0	0
> 250000 Gal.	607,687	4,351,417	774,450	576,075	$ 4,437.44	$ 31,721.83	$ 3,608.73	$ 2,166.04	3	1,975	14,422	1	4,351	31,722	1	774	3,609	1	576	2,166
	Sub-Total								6,385	26,342	$ 258,466	1	4351	$ 31,722	1	774	$ 3,609	1	576	$ 2,166
Avg Monthly Rate					$ 40.48	$ 31,721.83	$ 3,608.73	$ 2,166.04												
Avg Monthly Usage										4,126			4,351,417			774,450			576,075	
	Totals								6,385	26,342	$ 258,466	1	4,351	$ 31,722	1	774	$ 3,609	1	576	$ 2,166

XXVI. FORECAST OF WATER USAGE - INCOME - NEW USERS - EXTENSION ONLY

NOT APPLICABLE

XXVII. CURRENT OPERATING BUDGET (SEWER SYSTEM)
(As of the last full operating year.) Year Ending **2019**

NOT APPLICABLE

A. Operating Income:

Sewer Revenue	**$902,385**
Late Charge Fees	
Other (Describe)	**$ 20,245**
Less Allowances and Deductions	( )
Total Operating Income	**$922,630**

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

Operation Expense	**$ 362,833**
Maintenance Expense	**$ 91,839**
Other	**$ 475,540**
Administrative and General Expense	**$10,152**
Total Operating Expenses	**$940,364**
Net Operating Income	**$17,734**

C. Non-Operating Income:

Interest on Deposits	$**322**
Other (Identify)	
Interest Expense	**-64,500**
Total Non-Operating Income	**$ 64,178**

D. Net Income **$81,912**

E. Debt Repayment:

RD Interest	
RD Principal	**$ 71,091**
Non-RD Interest	
Non-RD Principal	
Total Debt Repayment	**$ 71,091**

F. Balance Available for Coverage $ **153,003**

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

NOT APPLICABLE

A. Operating Income:

Sewer Revenue	**$ 1,127,982**
Late Charge Fees	
Other (Describe)	**$ 20,852**
Less Allowances and Deductions	( )
Total Operating Income	**$ 1,148,834**

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

Operation Expense	**$ 385,041**
Maintenance Expense	**$ 97,460**
Other	**$ 504,647**
Administrative and General Expense	**$ 10,773**
Total Operating Expenses	**$ 997,992**
Net Operating Income	**$ 150,912**

C. Non-Operating Income:

Interest on Deposits	**$ 332**
Other (Identify)	
Interest Expense	**- $ 65,700**
Total Non-Operating Income	**$ (65,368)**

D. Net Income **$ 85,544**

E. Debt Repayment:

RD Interest	
RD Principal	**$ 72,000**
Non-RD Interest	
Non-RD Principal	
Total Debt Repayment	**$ 72,000**

F. Balance Available for Coverage and Depreciation **$ 13,544**

Short Lived Assets	**$ 7,000**
Debt Reserve	**$ 1,000**
Pension Plan Increase	**$ 5,000**
Balance Available	**$ 544**

XXX. CURRENT OPERATING BUDGET (WATER SYSTEM)

Year Ending December 2019

A. Operating Income:

Water Sales	**$ 3,259,604.76**
Other (Describe)	**$ 385,321.32**
Less Allowances and Deductions	( )
Total Operating Income	**$ 3,644,926.08**

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

Operation Expense (including depreciation)	**$ 2,908,906.22**
Maintenance Expense	
Other supplies and expenses	**$ 887,303.97**
Administrative and General Expense	**$ 614,550.44**
Total Operating Expenses	**$4,410,760.63**
Net Operating Income	**$ (765,834.55)**

C. Non-Operating Income:

Interest on Deposits	$ **7,281.23**
Other (Identify)	**$ 45,697.75**
Gain on sale of fixed assets	**$ 1,120.79**
Interest expense	**$ (278,759.25)**
Total Non-Operating Income	**$ (224,659.48)**

D. Net Income **$ (990,494.03)**

E. Debt Repayment:

RUS Interest	
RUS Principal	**$ 312,572**
Non-RUS Interest	
Non-RUS Principal	
Total Debt Repayment	**$ 312,572**

F. Balance Available for Coverage **$ (1,303,066.03)**

Less Depreciation	**$ 1,026,447.72**
TOTAL = ...	**$ (276,618.31)**

XXXI. PROPOSED OPERATING BUDGET (WATER SYSTEM) EXISTING SYSTEM AND NEW USERS

(1st Full Year of Operation) Year Ending **6-30-2021**

A. Operating Income:

Water Sales	**$ 3,808,307.81**
Disconnect/Reconnect/Late Charge Fees	
Other (Describe)	**$ 0**
Less Allowances and Deductions	( )
Total Operating Income	**$ 3,808,307.81**

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

Operation Expense (including depreciation)	**$ 2,908,906.22**
Maintenance Expense	
Other supplies and expenses	**$ 887,303.97**
Administrative and General Expense	**$ 614,550.44**
Total Operating Expenses	**$4,410,760.63**
Net Operating Income	**$ (602,452.82)**

C. Non-Operating Income:

Interest on Deposits	$ **7,281.23**
Other (Identify)	**$ 45,697.75**
Gain on sale of fixed assets	**$ 1,120.79**
Interest expense	**$ (278,759.25)**
Total Non-Operating Income	**$ (224,659.48)**

D. Net Income **$ (827,112.30)**

E. Debt Repayment:

RUS Interest	
RUS Principal	**$ 344,241**
Non-RUS Interest	
Non-RUS Principal	
Total Debt Repayment	**$ 344,241**

F. Balance Available for Coverage **$ (1,171,353.30)**

Less Depreciation ..... **$ 1,026,447.72**

TOTAL = **$ (144,905.58)**

Monthly Water Usage

	Average				Average Rate				Residential & Non-Residential			Federal Prison			Cumberland Falls State Park			Whitley County Water District		
	Res & Non-Res	Federal Prison	Cumb Falls State Park	Whitley Co Water	Res & Non-Res	Federal Prison	Cumb Falls State Park	Whitley Co Water	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income	No. of Users	Usage 1,000	Income
0 - 2000 Gal.	929				$ 21.98				2,457	2,283	54,010	0	0	0	0	0	0	0	0	0
2100 - 3000 Gal.	2,540				$ 25.92				1,100	2,795	28,515	0	0	0	0	0	0	0	0	0
3100 - 4000 Gal.	3,526				$ 33.10				892	3,146	29,540	0	0	0	0	0	0	0	0	0
4100 - 5000 Gal.	4,514				$ 40.31				627	2,830	25,269	0	0	0	0	0	0	0	0	0
5100 - 6000 Gal.	5,512				$ 47.58				411	2,268	19,576	0	0	0	0	0	0	0	0	0
6100 - 7000 Gal.	6,519				$ 54.92				261	1,703	14,344	0	0	0	0	0	0	0	0	0
7100 - 8000 Gal.	7,518				$ 62.21				167	1,257	10,399	0	0	0	0	0	0	0	0	0
8100 - 9000 Gal.	8,528				$ 69.57				112	952	7,769	0	0	0	0	0	0	0	0	0
9100 - 10000 Gal.	9,541				$ 76.95				75	713	5,752	0	0	0	0	0	0	0	0	0
10100 - 11000 Gal.	10,527				$ 84.14				54	568	4,544	0	0	0	0	0	0	0	0	0
11100 - 12000 Gal.	11,538				$ 91.51				36	417	3,310	0	0	0	0	0	0	0	0	0
12100 - 13000 Gal.	12,544				$ 98.85				27	335	2,636	0	0	0	0	0	0	0	0	0
13100 - 14000 Gal.	13,527				$ 106.01				21	277	2,173	0	0	0	0	0	0	0	0	0
14100 - 15000 Gal.	14,528				$ 113.31				16	236	1,841	0	0	0	0	0	0	0	0	0
15100 - 16000 Gal.	15,545				$ 120.72				13	198	1,539	0	0	0	0	0	0	0	0	0
16100 - 17000 Gal.	16,572				$ 128.21				11	185	1,432	0	0	0	0	0	0	0	0	0
17100 - 18000 Gal.	17,541				$ 135.27				10	168	1,296	0	0	0	0	0	0	0	0	0
18100 - 19000 Gal.	18,498				$ 142.25				8	139	1,067	0	0	0	0	0	0	0	0	0
19100 - 20000 Gal.	19,566				$ 150.04				6	124	950	0	0	0	0	0	0	0	0	0
20100 - 25000 Gal.	22,160				$ 168.95				21	473	3,604	0	0	0	0	0	0	0	0	0
25100 - 30000 Gal.	27,421				$ 207.30				11	308	2,332	0	0	0	0	0	0	0	0	0
30100 - 35000 Gal.	32,156				$ 241.82				7	214	1,612	0	0	0	0	0	0	0	0	0
35100 - 40000 Gal.	37,231				$ 278.81				6	239	1,789	0	0	0	0	0	0	0	0	0
40100 - 45000 Gal.	42,143				$ 314.62				5	204	1,521	0	0	0	0	0	0	0	0	0
45100 - 50000 Gal.	47,359				$ 352.65				3	126	940	0	0	0	0	0	0	0	0	0
50100 - 55000 Gal.	52,743				$ 391.90				2	92	686	0	0	0	0	0	0	0	0	0
55100 - 60000 Gal.	57,789				$ 428.68				3	169	1,250	0	0	0	0	0	0	0	0	0
60100 - 65000 Gal.	62,222				$ 461.00				2	119	884	0	0	0	0	0	0	0	0	0
65100 - 70000 Gal.	67,773				$ 501.47				3	186	1,379	0	0	0	0	0	0	0	0	0
70100 - 75000 Gal.	73,000				$ 539.57				1	97	719	0	0	0	0	0	0	0	0	0
75100 - 100000 Gal.	87,305				$ 643.85				7	575	4,239	0	0	0	0	0	0	0	0	0
100100 - 150000 Gal.	119,402				$ 877.84				5	577	4,243	0	0	0	0	0	0	0	0	0
150100 - 200000 Gal.	169,785				$ 1,245.13				2	283	2,075	0	0	0	0	0	0	0	0	0
200100 - 250000 Gal.	220,667				$ 1,616.06				1	110	808	0	0	0	0	0	0	0	0	0
> 250000 Gal.	607,687	4,351,417	774,450	576,075	$ 4,437.44	$ 31,721.83	$ 3,608.73	$ 2,166.04	3	1,975	14,422	1	4,351	31,722	1	774	3,609	1	576	2,166
	Sub-Total								6,385	26,342	$ 258,466	1	4351	$ 31,722	1	774	$ 3,609	1	576	$ 2,166
Avg Monthly Rate					$ 40.48	$ 31,721.83	$ 3,608.73	$ 2,166.04												
Avg Monthly Usage										4,126			4,351,417			774,450			576,075	
	Totals								6,385	26,342	$ 258,466	1	4,351	$ 31,722	1	774	$ 3,609	1	576	$ 2,166

Marsh Creek Rd Waterline Replacement Summary Addendum Funding Option 1-40 year Payback Schedule with Grant First Year of Operation - Year Ending in FY 2021		
Total Project Cost	$	1,444,710.00
Proposed Funding		
RD Loan Funds	$	722,710.00
CDBG Grant Funds	$	722,000.00
Proposed Bond Amount	$	722,710.00
Proposed Debt Service		
RD Loan Annual Debt Service (First 2 years of 40 year loan are defined) 40 years @ 2.50%	$	28,790.00
RD Loan Annual Debt Service Coverage (10% of Annual Debt Service)	$	2,879.00
Total New Project Debt Service	$	31,669.00
Additional Expenses & Anticipated Debt Service		
Estimated Annual O & M Increase	$	162,690.75
Short-Lived Assets	$	25,000.00
	+	
Total Additional Expenses & Anticipated Debt Service	$	187,690.75
Total Annual Increase (Total New Project Debt Service + Total Additional Expenses)	$	219,359.75
Balance Available for Coverage (For Planned & Ongoing Immediate Projects)	$	276,618.31
Radio Read Meters Annual Payment	$	100,000.00
Anticipated Pension and Debt Increase	$	-
Total Additional Annual Revenue Required	**$**	**595,978.06**
Total Additional Annual Revenue Required	$	595,978.06
Total 2019 Billed Water Resource	$	3,259,604.76
Percentage Rate Increase		***18.28%***

In Gallons	2019 Existing Rates	Proposed Rates
First 2,000	$ 21.98	$ 22.50
Over 2,000	$ 7.29	$ 9.25
Federal Correctional Facility		
First 1,950,000	$ 14,215.50	$ 14,215.50
All Over 1,950,000	$ 7.29	$ 7.29
Cumberland Falls State Park		
First 600,000	$ 2,808.00	$ 4,374.00
All Over 600,000	$ 4.59	$ 7.29
Whitley County Water District		
Per 1,000 gallons	$ 3.76	$ 7.29
Fibrotex USA		
Per 1,000 gallons	$ 7.29	$ 7.29
Pine Knot Job Corp Center		
Per 1,000 gallons	7.29	7.29
McCreary County Housing Auhtority		
Per 1,000 gallons	7.29	7.29
City of Oneida, TN		
Per 1,000 gallons	3.76	7.29

McCreary County Water District
Marsh Creek Rd Waterline Replacement
Short Lived Assets

Replacement Reserves - Short Lived Assets				
Type of Reserve	User Description	Replacement Cost	Reserve on Hand	Annual Reserve
1-5 Years	computer equipment	$ 10,000	0	2,000
1-5 Years	hydrants, valves, meters, etc.	$ 10,000	0	2,000
1-5 Years	SCADA equipment	$ 5,000	0	1,000
Subtotal 1-5 Years				5,000
5-10 Years	bobcat	$ 10,000	0	1,000
5-10 Years	utility truck	$ 10,000	0	1,000
Subtotal 5-10 Years				2,000
10-15 Years	2 tank paintings @ $105,000 ea	$ 210,000.00	0	14,000
10-15 Years	4 pumps @ $15,000 ea	$ 60,000	0	4,000
Subtotal 10-15 Years				18,000

Total Annual Replacement Reserve - Short Lived Assets $ 25,000

XXXII. Proposed Operating Budget (Water System) New Users Extension Only – **NOT APPLICABLE**

(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	
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
(Round to nearest $100)

NOT APPLICABLE

XXXIV. ESTIMATED PROJECT FUNDING - SEWER

NOT APPLICABLE

XXXV. ESTIMATED PROJECT COST - WATER

Development	**$ 1,132,100**
Land and Rights	
Legal	**40,000**
Engineering	**159,400**
Interest	
Contingencies	**113,210**
Initial Operating and Maintenance	
Other (Site Relocation, duplicate geotech. & arch. surveys)	
TOTAL	**$ 1,444,710**

XXXVI. PROPOSED PROJECT FUNDING

Applicant - User Connection Fees	**$ 0**
Other Applicant Contribution	**0**
RUS Financial Assistance	**722,710**
RUS Grant	**0**
ARC Grant (If applicable)	**0**
CDBG Grant (If applicable)	**722,000**
Other (Specify)	**0**
Other (Specify)	**0**
TOTAL	**$ 1,444,710**