SUMMARY ADDENDUM

То

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 <u>both</u> be taken as security for the loan, all user information and characteristics of <u>both</u> utility systems will be needed even though the project will benefit only <u>one</u> utility.

Feasibility reviews and <u>grant determinations</u> 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. <u>GENERAL</u>

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 ³/₄-inch HDPE waterline, 572 LF of 1 ¹/₂-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 <u>Extended Aeration Activated Sludge</u>

2. Method of Sludge Disposal <u>Landfarm / Landfill</u>

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

4. Date Constructed _2002_

B. Treatment Capacity of Sewage Treatment Plant <u>0.90 MGD</u>

C. Type of Sewage Collector System (Describe) <u>Conventional gravity</u>

with majority of customers served by low pressure grinder system____

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

GPM

E. Sewage Collection System:

Lineal Feet of Collector Lines, by Size 2'' - <u>2,227</u> 3'' - <u>10,992</u> 4'' - <u>5,678</u> 6'' - <u>1,025</u> 8'' - <u>616</u>

Date(s) Constructed <u>1990s</u>, <u>2000s</u>, <u>2010s</u>

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 Sto	orage Tank		Elevated Tank 10	
		Standpipe	2		Other	
	Numbe	r of Storage	Structures	12		
	Total S	torage Volu	me Capacity		2,700,000 Gallons	
	Date St Constru	torage Tank(ucted	s)	_	1980's, 1990's, 2000's	
C.	Water D	Distribution S	ystem:			
	Pipe M	aterial AC	, PVC, DI			
	Lineal I	Feet of Pipe:	2" &	: 3"		-

	Diameter 150,)00 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 <u>13%</u>

IV. EXISTING LONG-TERM INDEBTEDNESS

A. List of Bonds and Notes:

Water District

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

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

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

		PaymentPaymentYearYear20182019		r	Payment Year 2020		
Date of <u>Issue</u>	Bond/Note <u>Holder</u>	Principle <u>Payment</u>	Interest <u>Payment</u>	Principle Payment	Interest <u>Payment</u>	Principle <u>Payment</u>	Interest <u>Payment</u>
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	\$100,00 0	\$99,671	\$100,00 0	\$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		<u>\$337,369</u>	<u>\$244,437</u>	<u>\$345,34</u> <u>9</u>	<u>\$236,51</u> <u>3</u>	<u>\$353,43</u> <u>8</u>	<u>\$228,37</u> <u>8</u>
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		<u>\$50,000</u>	<u>\$62,414</u>	<u>\$50,000</u>	<u>\$60,749</u>	<u>\$55,500</u>	<u>\$59,004</u>

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

V. EXISTING SHORT-TERM INDEBTEDNESS

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

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

VI. <u>LAND AND RIGHTS - EXISTING SYSTEM(S)</u>

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. <u>NUMBER OF EXISTING USERS</u>

	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: <u>Residential Users</u>: Classify by type of user regardless of quantity of water used. This classification should include those meters serving individual rural residence.

VIII. <u>CURRENT WATER AND SEWER CONNECTION FEES FOR EACH SIZE</u> 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	\$

N/A

IX. <u>SEWER RATES - EXISTING SYSTEM</u>

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. <u>ANALYSIS OF ACTUAL SEWER USAGE - EXISTING SYSTEM - 12 MONTH PERIOD</u>

<u></u>			al & Non-
Monthly Sewer Usage			ential
		No. of	Usage
5/0 2/4	Average	Users	1,000
5/8 x 3/4 meter			
0 - 2,000 Gal.	994		448
2,100 - 3,000 Gal.	2,527		
3,100 - 4,000 Gal.	3,518		555
4,100 - 5,000 Gal.	4,519		
5,100 - 6,000 Gal.	5,500		379
6,100 - 7,000 Gal.	6,496		255
7,100 - 8,000 Gal.	7,523		
8,100 - 9,000 Gal.	8,532		149
9,100 - 10,000 Gal.	9,554		
10,100 - 11,000 Gal.	10,470		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		113
45,100 - 50,000 Gal.	47,600		67
50,100 - 55,000 Gal.	52,723		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		107
70,100 - 75,000 Gal.	73,140		61
75,100 - 100,000 Gal.	87,260		313
100,100 - 150,000 Gal.	122,254		418
150,100 - 200,000 Gal.	169,468		268
200,100 - 250,000 Gal.	220,667		110
250,100 & Over Gal.	595,934		1738
Prison Usage	3,929,358		3929
1 Hoon Obage	3,323,330	T	3525
	Subtotal	1151	11,404
Average Monthly Usage			9,908
	Totals	1151	11,404

For Period <u>01/01/2019</u> to <u>12/31/2019</u>

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

For Period 01/01/2019

to <u>12/31/2019</u>

Residential & Non-Whitley County **Cumberland Falls** Monthly Water Usage Residential **Federal Prison** State Park Water No. of No. of No. of No. of Average Usage Usage Usage Usage Usage Users 1,000 Users 1,000 Users 1,000 Users 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 1,257 7,100 - 8,000 Gal. 7,518 167 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 12,544 12,100 - 13,000 Gal. 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 16,572 185 16,100 - 17,000 Gal. 11 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 5 204 40,100 - 45,000 Gal. 42,143 47,359 3 126 45,100 - 50,000 Gal. 50,100 - 55,000 Gal. 52,743 2 92 55,100 - 60,000 Gal. 57,789 3 169 2 60,100 - 65,000 Gal. 62,222 119 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 5 577 100,100 - 150,000 Gal. 119,402 150,100 - 200,000 Gal. 169,785 2 283 1 200,100 - 250,000 Gal. 220,667 110 250,100 & Over Gal. 607,977 3 1,976 4,351 774 576 1 1 1 26,345 4,351 774 576 6,385 1 1 1 Subtotal 4,126 4,351 774 576 Average Monthly Usage

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 Storage:			
Type: Ground Stora	ge Tank	Elevated Ta	ınk
Standpipe		Other	
Number of Storage S	Structures		
Total Storage Volun	ne Capacity		
. Water Distribution Sy Pipe Material PVC			
Lineal Feet of Pipe:	3" Diameter 69	4"	183
	6" 30,783	8"	
	10"	12"	161

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. <u>PROPOSED SEWER CONNECTION FEES FOR EACH SIZE WATER</u> <u>METER CONNECTION</u>

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: <u>Residential Users</u>: Classify by type of user regardless of quantity of water used. This classification should include those meters serving individual rural residences.

XX. <u>PROPOSED WATER CONNECTION FEES FOR EACH SIZE WATER</u> <u>METER CONNECTION</u>

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. <u>SEWER RATES – PROPOSED</u> NOT APPLICABLE

	2019 Existing	
In Gallons	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

A. Proposed Rate Schedule without RUS Grant:

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:

	2019 Existing	
In Gallons	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:
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	2019 Existing	
In Gallons	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

C	ity 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:

	2019 Existing	
In Gallons	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

C	ity of Oneida, TN	
Per 1,000 Gal	\$3.76	\$7.29

Whitley	y County Water Di	strict
Per 1,000 gallons	\$3.76	\$7.29

NOT APPLICABLE

Monthly Sewer Usage				Reside	ential & Nor	I-Re	<u>esidential</u>
				No. of	Usage		
	Average	Ave	erage Rate	Users	1,000	Inc	come
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 <i>,</i> 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		
Appual Tatal	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

		Ā	Average			Avera	Average Rate		Resic	Residential & Non- Residential	Jon-	Federal Prison	Prison	Cumbe	Cumberland Falls. Park	State	Whitley County Water District	unty Wate rict
	Res & Non-Federa Res Prison		Cumb Falls State Park	<u>Whitley</u> Co Water	Res & Non- Res	<u>Federa</u> Prison	<u>Cumb Falls</u> <u>State Park</u>	<u>Whitley Co</u> <u>Water</u>	No. of Users	Usage 1,000	ncome	No. of Usage 1,000	000 Income	No. of Users		Income Use	No. of Usage Users 1,000	ge Income
0 - 2000 Gal.	929				\$ 21.98				2.457	2.283	54.010	0	0		0	0	0	0
2100 - 3000 Gal.	2,540								1,100	2,795	28,515	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
4100 - 5000 Gal.	4,514				\$ 40.31				627	2,830	25,269	0	0		0	0	0	0
5100 - 6000 Gal.	5,512				\$ 47.58				411	2,268	19,576	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
7100 - 8000 Gal.	7,518				\$ 62.21				167	1,257	10,399	0	0		0	0	0	0
8100 - 9000 Gal.	8,528				\$ 69.57				112	952	7,769	0	0	0	0	0	0	0
9100 - 10000 Gal.	9,541				\$ 76.95				75	713	5,752	0	0		0	0	0	0
10100 - 11000 Gal.	10,527				\$ 84.14				54	568	4,544	0	0		0	0	0	0
11100 - 12000 Gal.	11,538				\$ 91.51				36	417	3,310	0	0		0	0	0	0
12100 - 13000 Gal.	12,544				\$ 98.85				27	335	2,636	0	0		0	0	0	0
13100 - 14000 Gal.	13,527				\$ 106.01				21	277	2,173	0	0		0	0	0	0
14100 - 15000 Gal.	14,528				\$ 113.31				16	236	1,841	0	0		0	0	0	0
15100 - 16000 Gal.	15,545				\$ 120.72				13	198	1,539	0	0	0	0	0	0	0
16100 - 17000 Gal.	16,572				\$ 128.21				11	185	1,432	0	0		0	0	0	0
17100 - 18000 Gal.	17,541				\$ 135.27				10	168	1,296	0	0		0	0	0	0
18100 - 19000 Gal.	18,498				\$ 142.25				∞	139	1,067	0	0		0	0	0	0
19100 - 20000 Gal.	19,566				\$ 150.04				9	124	950	0	0		0	0	0	0
20100 - 25000 Gal.	22,160				\$ 168.95				21	473	3,604	0	0		0	0	0	0
25100 - 30000 Gal.	27,421				\$ 207.30				11	308	2,332	0	0		0	0	0	0
30100 - 35000 Gal.	32,156				\$ 241.82				7	214	1,612	0	0		0	0	0	0
35100 - 40000 Gal.	37,231				\$ 278.81				9	239	1,789	0	0		0	0	0	0
40100 - 45000 Gal.	42,143				\$ 314.62				S	204	1,521	0	0		0	0	0	0
45100 - 50000 Gal.	47,359								£	126	940	0	0		0	0	0	0
50100 - 55000 Gal.	52,743				\$ 391.90				2	92	686	0	0		0	0	0	0
55100 - 60000 Gal.	57,789				\$ 428.68				m	169	1,250	0	0		0	0	0	0
60100 - 65000 Gal.	62,222				\$ 461.00				2	119	884	0	0		0	0	0	0
65100 - 70000 Gal.	67,773								e	186	1,379	0	0	0	0	0	0	0
70100 - 75000 Gal.	73,000				\$ 539.57				H	97	719	0	0		0	0	0	0
75100 - 100000 Gal.	87,305				\$ 643.85				7	575	4,239	0	0	0	0	0	0	0
100100 - 150000 Gal.	119,402				\$ 877.84				S	577	4,243	0	0		0	0	0	0
150100 - 200000 Gal.	169,785				\$ 1,245.13				2	283	2,075	0	0		0	0	0	0
200100 - 250000 Gal.	220,667				\$ 1,616.06				1	110	808	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	ß	1,975	14,422	1 4,3	,351 31,722	2 1	774	3,609	1	576 2,166
	Sub-Total								6,385	26,342 \$	\$ 258,466	1 4	4351 \$ 31,722	2 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		4,351,4	,417		774,450		576,075	775
	Totals								6 385	26 247 ¢	758.466	1 4.351	51 \$ 31.777	,	\$ 777 \$	2 600	~	576 ¢ 2 166

/FORM/MARSH CREEK ROAD WL REPLACEMENT (SUM20ARY ADDENDUM)/ 9/1/2020/

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

NOT APPLICABLE

XXVII	. <u>CURRENT OPERATING BUDGET (SEWER SYSTEM)</u> (As of the last full operating year.)	Year Ending	2019
	PPLICABLE Operating Income:		
	Sewer Revenue Late Charge Fees		\$902,385
	Other (Describe)		\$ 20,245
	Less Allowances and Deductions	()
	Total Operating Income		\$922,630
	Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed Regulatory Utility Commissioners)	by National	Association of
	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 Non-RD Interest Non-RD Principal		\$ 71,091
	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)	¢ (5 700
	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	<u>+ ·</u> ;•••
	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. <u>CURRENT OPERATING BUDGET (WATER SYSTEM)</u>

A. Operating Income:

Year Ending December 2019

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. <u>Proposed Operating Budget (Water</u> <u>AND New Users</u> (1st Full Year of Operation) Ye	<u>r System) Existing System</u> ear Ending <u>6-30-2021</u>
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 Regulatory Utility Commissioners) 	by National Association of
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	<u>\$ (1,171,353.30)</u>
Less Depreciation	
TOTAL =	\$ (144,905.58)

		A	Average			Avera	Average Rate		Resic R	Residential & Non- Residential	- non-	Federal Prison	rison	Cumbe	Cumberland Falls ! Park	State M	Whitley County Water District	inty Wate ict
	Res & Non-Federa Res Prison		Cumb Falls State Park	<u>Whitley</u> Co Water	<u>Res & Non-</u> <u>Res</u>	<u>Federa</u> Prison	Cumb Falls State Park	<u>Whitley Co</u> <u>Water</u>	No. of Users	Usage 1,000	ncome	No. of Usage 1,000	00 Income	No. of Users		Income Use	No. of Usage Users 1,000	e Income
0 - 2000 Gal.	929				\$ 21.98				2.457	2.283	54.010	0			0	0	0	0
2100 - 3000 Gal.	2,540								1,100	2,795	28,515	0	0	0	0	0	0	0
3100 - 4000 Gal.	3,526				\$ 33.10				892	3,146	29,540	0			0	0	0	0
4100 - 5000 Gal.	4,514				\$ 40.31				627	2,830	25,269	0	0		0	0	0	0
5100 - 6000 Gal.	5,512				\$ 47.58				411	2,268	19,576	0			0	0	0	0
6100 - 7000 Gal.	6,519				\$ 54.92				261	1,703	14,344	0	0	0	0	0	0	0
7100 - 8000 Gal.	7,518				\$ 62.21				167	1,257	10,399	0			0	0	0	0
8100 - 9000 Gal.	8,528				\$ 69.57				112	952	7,769	0	0	0	0	0	0	0
9100 - 10000 Gal.	9,541				\$ 76.95				75	713	5,752	0			0	0	0	0
10100 - 11000 Gal.	10,527				\$ 84.14				54	568	4,544	0			0	0	0	0
11100 - 12000 Gal.	11,538				\$ 91.51				36	417	3,310	0	0		0	0	0	0
12100 - 13000 Gal.	12,544				\$ 98.85				27	335	2,636	0			0	0	0	0
13100 - 14000 Gal.	13,527				\$ 106.01				21	277	2,173	0			0	0	0	0
14100 - 15000 Gal.	14,528				\$ 113.31				16	236	1,841	0			0	0	0	0
15100 - 16000 Gal.	15,545				\$ 120.72				13	198	1,539	0	0	0	0	0	0	0
16100 - 17000 Gal.	16,572				\$ 128.21				11	185	1,432	0			0	0	0	0
17100 - 18000 Gal.	17,541				\$ 135.27				10	168	1,296	0			0	0	0	0
18100 - 19000 Gal.	18,498				\$ 142.25				8	139	1,067	0			0	0	0	0
19100 - 20000 Gal.	19,566				\$ 150.04				9	124	950	0			0	0	0	0
20100 - 25000 Gal.	22,160				\$ 168.95				21	473	3,604	0			0	0	0	0
25100 - 30000 Gal.	27,421				\$ 207.30				11	308	2,332	0			0	0	0	0
30100 - 35000 Gal.	32,156				\$ 241.82				7	214	1,612	0			0	0	0	0
35100 - 40000 Gal.	37,231				\$ 278.81				9	239	1,789	0			0	0	0	0
40100 - 45000 Gal.	42,143				\$ 314.62				2	204	1,521	0			0	0	0	0
45100 - 50000 Gal.	47,359				\$ 352.65				ε	126	940	0			0	0	0	0
50100 - 55000 Gal.	52,743				\$ 391.90				2	92	686	0			0	0	0	0
55100 - 60000 Gal.	57,789				\$ 428.68				n	169	1,250	0			0	0	0	0
60100 - 65000 Gal.	62,222				\$ 461.00				2	119	884	0			0	0	0	0
65100 - 70000 Gal.	67,773				\$ 501.47				ε	186	1,379	0	0		0	0	0	0
70100 - 75000 Gal.	73,000				\$ 539.57				1	97	719	0		0	0	0	0	0
75100 - 100000 Gal.	87,305				\$ 643.85				7	575	4,239	0			0	0	0	0
100100 - 150000 Gal.	119,402				\$ 877.84				5	577	4,243	0			0	0	0	0
150100 - 200000 Gal.	169,785				\$ 1,245.13				2	283	2,075	0	0	0	0	0	0	0
200100 - 250000 Gal.	220,667				\$ 1,616.06				1	110	808	0		0	0	0	0	0
> 250000 Gal.	607,687	4,351,417	7 774,450	576,075	\$ 4,437.44	\$ 31,721.83	\$ 3,608.73	\$ 2,166.04	3	1,975	14,422	1 4,351	51 31,722	2 1	774	3,609		576 2,166
	Sub-Total								6,385	26,342 \$	\$ 258,466	1 43	4351 \$ 31,722	2 1	774 \$	\$ 3,609	1 5	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	17		774,450		576,075	75
	Totals									-	001010							

/FORM/MARSH CREEK ROAD WL REPLACEMENT (SUM2GARY ADDENDUM)/ 9/1/2020/

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)	\$	28,790.00
40 years @ 2.50%		
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%

	2	019 Existing			
In Gallons	Rates		Proposed Rates		
First 2,000	\$	21.98	\$	22.50	
Over 2,000	\$	7.29	\$	9.25	
Fede	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					
		Rep	olacement	Reserve	
Type of Reserve	User Description	Cos	st	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**

NOL	(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 Regulatory Utility Commissioners)	prescribed by National Association of
	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	\$
1.		Ψ

XXXIII. ESTIMATED PROJECT COST - SEWER (Round to nearest \$100)

NOT APPLICABLE

XXXIV. ESTIMATED PROJECT FUNDING - SEWER

NOT APPLICABLE

XXXV. <u>Estimated Project Cost - Water</u>

	\$ 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