

SUMMARY ADDENDUM
TO
PRELIMINARY ENGINEERING REPORT

DATED January 2021 December 2022

FOR

Nicholas County Water District – Water System Improvements Project
(Name of Project)

APPLICANT CONTACT PERSON Silas Cleaver, Chairman

APPLICANT PHONE NUMBER (606) 474-7570

APPLICANT TAX IDENTIFICATION NUMBER (TIN) 61-1037311

I. GENERAL

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

The proposed project is to replace approximately 10,600 LF of problematic water mains in two different areas of the distribution system. In addition, the project will replace three existing pump stations and demo a fourth pump station. The project will include rehabilitation of three existing storage tanks. Rehabilitation work consists of repaint of interiors, touch up of the exterior on two tanks. The project will also include the replacement of 1,600 existing customer meters with new radio read meters. These new meters will replace old outdated meters and should improve water loss with more accurate readings, and will also allow the District to save money by not paying outside contractors for this monthly service. Additional items that could be included in the project depending on funds available include a new portable generator, purchase of additional service trucks, water pumps, trailer, computer equipment and software updates and other miscellaneous tools.

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

A. Sewage Treatment:

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

B. Treatment Capacity of Sewage Treatment Plant _____

C. Type of Sewage Collector System (Describe)

D. Number and Capacity of Sewage Lift Stations

E. Sewage Collection System:

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

F. Conditions of Existing System: Briefly describe the conditions and suitability for continued use of facility now owned by the applicant. Include any major

renovation that will be needed within five to ten years.

III. FACILITY CHARACTERISTICS OF EXISTING WATER SYSTEM

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

The District currently purchases its water from four different utilities, Buffalo Trail Water Association, the City of Carlisle, Western Fleming Water District and Kentucky American Water. The District has water purchase agreements with each of these entities to ensure an adequate supply of potable water to its customer base. The District purchases an average of 167 MG per year from these entities combined. In addition, the District sells an average of 26 MG per year to the Harrison County Water Association.

If the applicant purchases water:

Seller(s):

1. City of Carlisle

Price/1,000 gallons:

1. \$1.58

2. Buffalo Trail Water Association

Price/1,000 gallons:

2 \$2.02

3. Western Fleming Water District

Price/1,000 gallons:

3 \$2.14

4. Kentucky American Water

Price/1,000 gallons:

4 \$2.25

Present Estimated Market Value of Existing System: \$ 4,771,192.00

B. Water Storage:

Type: Ground Storage Tank Elevated Tank

Standpipe Other _____
 Number of Storage Structures _____ 3 _____
 Total Storage Volume Capacity _____ 389,000 Gallons _____
 Date Storage Tank(s) Constructed _____ 1998 to 2009 _____

C. Water Distribution System:

Pipe Material _____ PVC, AC, PE _____
 Lineal Feet of Pipe: 1,000,000 LF of 2, 3, 4, 6, and 8 inch pipe
 All pipe footage is an estimate only.
 Date(s) Water Lines Constructed _____ 1966 - present _____
 Number and Capacity of Pump Station(s) Four (4) pump stations ranging from
2 hp to 15 hp

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 District currently has a higher than desired water loss which can be partly attributable to the poor condition of some of its water mains. These water mains are of PVC material and experience breaks fairly often. The system's storage tanks are in fair to good condition and will be rehabilitated with this project. Additionally, the District's pump stations are in poor condition. Three new pump stations will be installed with this project and one of the existing pump stations will be eliminated.

E. Percentage of Water Loss Existing System _____ 29% _____

IV. EXISTING LONG-TERM INDEBTEDNESS

A. List of Bonds and Notes:

DATE OF ISSUE	BOND HOLDER	PRINCIPAL BALANCE	PAYMENT DATE	BOND TYPE WATER/SEWER	AMOUNT ON DEPOSIT IN RESERVE ACCOUNT
2015	KRWFC	\$ 1,545,000	Monthly	100%	
2015	KRWFC	\$ 120,000	Monthly	100%	
2004	RD	\$ 168,000	Jan/July	100%	
2014	RD	\$ 529,000	Jan/July	100%	

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

DATE OF ISSUE	BOND HOLDER	PAYMENT YEAR: 2021		PAYMENT YEAR: 2022		PAYMENT YEAR: 2023	
		PRINCIPAL PAYMENT	INTEREST PAYMENT	PRINCIPAL PAYMENT	INTEREST PAYMENT	PRINCIPAL PAYMENT	INTEREST PAYMENT
2015	KRWFC	\$ 70,000	\$ 53,970	\$ 70,000	\$ 51,100	\$ 75,000	\$ 48,128
2015	KRWFC	\$ 20,000	\$ 3,490	\$ 20,000	\$ 2,670	\$ 20,000	\$ 1,850
2004	RD	\$ 4,000	\$ 6,703	\$ 4,000	\$ 6,538	\$ 4,000	\$ 6,373
2014	RD	\$ 9,500	\$ 14,169	\$ 9,500	\$ 13,908	\$ 10,000	\$ 13,640

V. EXISTING SHORT-TERM INDEBTEDNESS

A. N/A

VI. LAND AND RIGHTS - EXISTING SYSTEM(S)

Number of Treatment Plant Sites:	Water	_____	Sewer	<u>N/A</u>
Number of Storage Tank Sites	Water	3	Sewer	<u>N/A</u>
Number of Pump Stations:	Water	4	Sewer	<u>N/A</u>
Total Acreage:	Water	5 Acres	Sewer	<u>N/A Acres</u>
Purchase Price:	Water	\$ 5,000	Sewer	<u>\$ N/A</u>

VII. NUMBER OF EXISTING USERS

	Water	Sewer
Residential (In Town) *	_____	_____
Residential (Out of Town) *	1,554	_____
Non-Residential (In Town)	_____	_____
Non-Residential (Out of Town)	10	_____
Total	1,564	_____
Number to Total Potential Users Living in the Service Area	50	_____

*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	Charge
5/8" x 3/4"	\$1,000
1" & larger	Actual Cost

IX. SEWER RATES - EXISTING SYSTEM N/A

Percentage of Water Bill _____ % Minimum Charge \$ _____

Other: (If Charge Not Based on Water Bill) _____

Date This Rate Went Into Effect _____

X. WATER RATES - EXISTING SYSTEM

Existing Rate Schedule:

<u>EXISTING RATES - CURRENT</u>			
<u>5/8" x 3/4"</u>			
first 1000	\$ 14.97	minimum	
next 2000	\$ 7.30	per 1000 gallons	
next 2000	\$ 6.05	per 1000 gallons	
next 5000	\$ 4.90	per 1000 gallons	
next 15,000	\$ 4.45	per 1000 gallons	
All Over 25,000	\$ 4.22	per 1000 gallons	
<u>1"</u>			
first 3000	\$ 29.57	minimum	
next 2000	\$ 6.05	per 1000 gallons	
next 5000	\$ 4.90	per 1000 gallons	
next 15,000	\$ 4.45	per 1000 gallons	
All Over 25,000	\$ 4.22	per 1000 gallons	
<u>1 1/2"</u>			
first 5000	\$ 41.67	minimum	
next 5000	\$ 4.90	per 1000 gallons	
next 15,000	\$ 4.45	per 1000 gallons	
All Over 25,000	\$ 4.22	per 1000 gallons	
<u>2"</u>			
first 10,000	\$ 66.17	minimum	
next 15,000	\$ 4.45	per 1000 gallons	
All Over 25,000	\$ 4.22	per 1000 gallons	
<u>3"</u>			
first 15,000	\$ 88.42	minimum	
next 10,000	\$ 4.45	per 1000 gallons	
All Over 25,000	\$ 4.22	per 1000 gallons	
<u>4"</u>			
first 25,000	\$ 132.92	minimum	
All Over 25,000	\$ 4.22	per 1000 gallons	

Date This Rate Went Into Effect April 28, 2020

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

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

ANALYSIS OF ACTUAL WATER USAGE - EXISTING SYSTEM								
				Residential		Commercial		
<u>MONTHLY WATER USAGE</u>			<u>Average</u>	<u>No. of Users</u>	<u>Usage 1,000</u>	<u>Average</u>	<u>No. of Users</u>	<u>Usage 1,000</u>
<i>5/8 x 3/4 meter</i>								
0 - 1,000 Gal.			312	348	109	180	1	0
1,001 - 3,000 Gal.			1,999	556	1,111	2,992	1	3
3,001 - 5,000 Gal.			3,890	321	1,249	4,221	2	7
5,001 - 10,000 Gal.			6,836	211	1,442	5,779	1	5
10,001 - 25,000 Gal.			14,764	82	1,211	14,368	0	5
All Over 25,000 Gal.			42,284	18	761			0
<i>1" meter</i>								
0 - 3,000 Gal.			1,135	7	8			0
3,001 - 5,000 Gal.			3,684	2	7			0
5,001 - 10,000 Gal.			7,375	4	30			0
10,001 - 25,000 Gal.			16,048	3	48			0
All Over 25,000 Gal.			40,112	1	40			0
<i>1 & 1/2" meter</i>								
0 - 5,000 Gal.					0			0
5,001 - 10,000 Gal.					0			0
10,001 - 25,000 Gal.					0			0
All Over 25,000 Gal.					0	138,400	1	138
<i>2" meter</i>								
0 - 10,000 Gal.					0	8,600	2	17
10,001 - 25,000 Gal.					0	22,775	1	32
All Over 25,000 Gal.					0	36,475	0	15
<i>3" meter</i>								
0 - 15,000 Gal.					0			0
15,001 - 25,000 Gal.					0			0
All Over 25,000 Gal.					0			0
<i>4" meter</i>								
0 - 25,000 Gal.					0			0
All Over 25,000 Gal.					0			0
<i>Re-sale</i>								
HCWA			2,219,333	1	2,219			
			<i>Subtotal</i>	<i>1554</i>	<i>8,235</i>		<i>10</i>	<i>223</i>
Average Monthly Usage					5,299			23,240
			Totals	1554	8235.3		9.58	222.63919

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 1
 Standpipe 2 Other _____

Number of Storage Structures 3

Total Storage Volume Capacity 389,000

C. Water Distribution System:

Pipe Material PVC, AC, PE

Lineal Feet of Pipe: 1,000,000 LF of 2, 3, 4, 6 and 8 inch pipe

All pipe footage is an estimate only.

Date(s) Water Lines Constructed 1966 - present

Number and Capacity of Pump Station(s) Four (4) pump stations ranging from
 2 hp to 10 hp

XVI. LAND AND RIGHTS - PROPOSED WATER SYSTEM

Number of Treatment Plant Sites	<u>0</u>
Number of Pump Sites	<u>2</u>
Number of Other Sites	<u>0</u>
Total Acreage	<u>.1 Acres</u>
Purchase Price	<u>\$ 5,000</u>

XIX. NUMBER OF NEW WATER USERS

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

*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	Charge
5/8" x 3/4"	\$1,000
1" & larger	Actual Cost

XXII. WATER RATES - PROPOSED

A. Proposed Rate Schedule without RUS Grant:

PROPOSED RATES			
<u>5/8" x 3/4"</u>			
first 1000	\$ 24.12		minimum
next 2000	\$ 11.47		per 1000 gallons
next 2000	\$ 9.41		per 1000 gallons
next 5000	\$ 7.51		per 1000 gallons
next 15,000	\$ 6.77		per 1000 gallons
All Over 25,000	\$ 6.39		per 1000 gallons
<u>1"</u>			
first 3000	\$ 47.06		Minimum
next 2000	\$ 9.41		per 1000 gallons
next 5000	\$ 7.51		per 1000 gallons
next 15,000	\$ 6.77		per 1000 gallons
All Over 25,000	\$ 6.39		per 1000 gallons
<u>1 1/2"</u>			
first 5000	\$ 65.87		Minimum
next 5000	\$ 7.51		per 1000 gallons
next 15,000	\$ 6.77		per 1000 gallons
All Over 25,000	\$ 6.39		per 1000 gallons
<u>2"</u>			
first 10,000	\$ 103.41		Minimum
next 15,000	\$ 6.77		per 1000 gallons
All Over 25,000	\$ 6.39		per 1000 gallons
<u>3"</u>			
first 15,000	\$ 137.23		Minimum
next 10,000	\$ 6.77		per 1000 gallons
All Over 25,000	\$ 6.39		per 1000 gallons
<u>4"</u>			
first 25,000	\$ 204.88		Minimum
All Over 25,000	\$ 6.39		per 1000 gallons

B. Recommended Rate Schedule with RUS Grant:

<u>PROPOSED RATES</u>			
<u>5/8" x 3/4"</u>			
first 1000	\$ 21.93		minimum
next 2000	\$ 10.43		per 1000 gallons
next 2000	\$ 8.55		per 1000 gallons
next 5000	\$ 6.83		per 1000 gallons
next 15,000	\$ 6.15		per 1000 gallons
All Over 25,000	\$ 5.81		per 1000 gallons
<u>1"</u>			
first 3000	\$ 42.78		minimum
next 2000	\$ 8.55		per 1000 gallons
next 5000	\$ 6.83		per 1000 gallons
next 15,000	\$ 6.15		per 1000 gallons
All Over 25,000	\$ 5.81		per 1000 gallons
<u>1 1/2"</u>			
first 5000	\$ 59.88		minimum
next 5000	\$ 6.83		per 1000 gallons
next 15,000	\$ 6.15		per 1000 gallons
All Over 25,000	\$ 5.81		per 1000 gallons
<u>2"</u>			
first 10,000	\$ 94.01		minimum
next 15,000	\$ 6.15		per 1000 gallons
All Over 25,000	\$ 5.81		per 1000 gallons
<u>3"</u>			
first 15,000	\$ 124.76		minimum
next 10,000	\$ 6.15		per 1000 gallons
All Over 25,000	\$ 5.81		per 1000 gallons
<u>4"</u>			
first 25,000	\$ 186.26		minimum
All Over 25,000	\$ 5.81		per 1000 gallons

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

XXV. FORECAST OF WATER USAGE - INCOME - EXISTING SYSTEM										
MONTHLY WATER USAGE										
	AVERAGE		AVERAGE RATE		No. of Users	Residential		Income	Commercial	
	Residential	Commercial	Residential	Commercial		Usage 1,000	Usage 1,000		Usage 1,000	Income
<i>5/8 x 3/4 meter</i>										
0 - 1,000 Gal.	312	180	\$ 21.93	\$ 21.93	348	109	\$ 7,631.64	1	0	\$ 21.93
1,001 - 3,000 Gal.	1999	2992	\$ 32.35	\$ 42.71	556	1111	\$ 17,986.36	1	3	\$ 42.71
3,001 - 5,000 Gal.	3890	4221	\$ 50.40	\$ 53.23	321	1249	\$ 16,178.24	1.58	7	\$ 84.10
5,001 - 10,000 Gal.	6836	5779	\$ 72.43	\$ 65.21	211	1442	\$ 15,282.70	0.83	5	\$ 54.12
10,001 - 25,000 Gal.	14764	14368	\$ 123.34	\$ 120.90	82	1211	\$ 10,113.77	0.33	5	\$ 39.90
All Over 25,000 Gal.	42284	0	\$ 286.71	\$ 41.04	18	761	\$ 5,160.78	0	0	\$ -
<i>1" meter</i>										
0 - 3,000 Gal.	1135	0	\$ 42.78	\$ 42.78	7	8	\$ 299.46	0	0	\$ -
3,001 - 5,000 Gal.	3684	0	\$ 48.63	\$ 17.13	2	7	\$ 97.26	0	0	\$ -
5,001 - 10,000 Gal.	7375	0	\$ 76.10	\$ 25.73	4	30	\$ 304.41	0	0	\$ -
10,001 - 25,000 Gal.	16048	0	\$ 131.23	\$ 32.53	3	48	\$ 393.68	0	0	\$ -
All Over 25,000 Gal.	40112	0	\$ 274.08	\$ 41.03	1	40	\$ 274.08	0	0	\$ -
<i>1 & 1/2" meter</i>										
0 - 5,000 Gal.	0	0	\$ 59.88	\$ 59.88	0	0	\$ -	0	0	\$ -
5,001 - 10,000 Gal.	0	0	\$ 25.73	\$ 25.73	0	0	\$ -	0	0	\$ -
10,001 - 25,000 Gal.	0	0	\$ 32.53	\$ 32.53	0	0	\$ -	0	0	\$ -
All Over 25,000 Gal.	0	138400	\$ 41.03	\$ 845.13	0	0	\$ -	1	138.4	\$ 845.13
<i>2" meter</i>										
0 - 10,000 Gal.	0	8600	\$ 94.01	\$ 94.01	0	0	\$ -	2	17.2	\$ 188.02
10,001 - 25,000 Gal.	0	22775	\$ 32.51	\$ 172.58	0	0	\$ -	1.42	32.3405	\$ 245.06
All Over 25,000 Gal.	0	36475	\$ 41.01	\$ 252.93	0	0	\$ -	0.42	15.3195	\$ 106.23
<i>3" meter</i>										
0 - 15,000 Gal.	0	0	\$ 124.76	\$ 124.76	0	0	\$ -	0	0	\$ -
15,001 - 25,000 Gal.	0	0	\$ 32.51	\$ 32.51	0	0	\$ -	0	0	\$ -
All Over 25,000 Gal.	0	0	\$ 99.11	\$ 99.11	0	0	\$ -	0	0	\$ -
<i>4" meter</i>										
0 - 25,000 Gal.	0	0	\$ 186.26	\$ 186.26	0	0	\$ -	0	0	\$ -
All Over 25,000 Gal.	0	0	\$ 41.01	\$ 41.01	0	0	\$ -	0	0	\$ -
Re-sale										
HCWA	2219333	0			1	2219.333	6,702			
<i>Sub-Total</i>					1,554	8,235	\$ 80,424.75	9.58	223	\$ 1,627.20
Average Monthly Rate			\$ 56.34							
Average Monthly Usage					5,299				23,240	
Totals					1,554	8,235	\$ 80,425	10	223	\$ 1,627

XXXVI. CURRENT OPERATING BUDGET - (WATER SYSTEM) -				Year Ending 2019
A.	Operating Income:			
	Water Sales			\$ 658,596
	Disconnect/Reconnect/Late Charge Fees			
	Other (Describe)	customer tap fees		\$ 7,512
		sewer collection fees		\$ 8,635
		911 collection fees		\$ 3,238
		miscellaneous revenue		\$ 2,395
	Less Allowances and Deductions			
	Total Operating Income			\$ 680,376
B.	Operation and Maintenance Expenses: (Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)			
	Operation Expense			
		Water Purchases		\$ 238,078
		Contract Labor		\$ 22,791
		Utilities		\$ 27,728
	Administrative & General Expense			
		Wages & Benefits		\$ 255,191
		Professional Fees		\$ 29,995
		Computer Services		\$ 14,401
		General & Adm.		\$ 52,534
		Insurance		\$ 17,835
	Total Operating Expenses			\$ 658,553
	Net Operating Income			\$ 21,823
C.	Non-Operating Income:			
	Interest Income			\$ 1,634
	Interest Expense			\$ (82,517)
	Total Non-Operating Income			\$ (80,883)
D.	Net Income			\$ (59,060)
E.	Debt Repayment:			
	RUS Interest			
		RUS Principal		\$ 12,500
	Non-RUS Interest			
		Non-RUS Principal		\$ 85,000
	Total Debt Repayment			\$ 97,500
F.	Balance Available for Coverage			\$ (156,560)
	Short Lived Assets			
	Debt Reserve			
		Existing Debt Reserve		\$ 5,000
	Balance Available			\$ (161,560)
	Coverage Ratio			(0.61)

XXXVII. PROPOSED OPERATING BUDGET - (WATER SYSTEM)		
	(1st Full Year of Operation)	Year Ending 2022
A.	Operating Income:	
	Water Sales	\$ 984,624
	Disconnect/Reconnect/Late Charge Fees	
	Other (Describe) customer tap fees	\$ 7,500
	sewer collection fees	\$ 8,650
	911 collection fees	\$ 3,250
	miscellaneous revenue	\$ 2,500
	Less Allowances and Deductions	
	Total Operating Income	\$ 1,006,524
B.	Operation and Maintenance Expenses:	
	(Based on Uniform System of Accounts prescribed by National Association of Regulatory Utility Commissioners)	
	Operation Expense	
	Water Purchases	\$ 289,385
	Contract Labor	\$ 27,703
	Utilities	\$ 33,704
	Administrative & General Expense	
	Wages & Benefits	\$ 310,186
	Professional Fees	\$ 36,459
	Computer Services	\$ 17,505
	General & Adm.	\$ 63,855
	Insurance	\$ 21,679
	Total Operating Expenses	\$ 800,476
	Net Operating Income	\$ 206,048
C.	Non-Operating Income:	
	Interest Income	\$ 2,000
	Interest Expense	\$ -
	Total Non-Operating Income	\$ 2,000
D.	Net Income	\$ 208,048
E.	Debt Repayment:	
	RUS Interest	\$ 36,096
	RUS Principal	\$ 29,150
	Non-RUS Interest	\$ 53,770
	Non-RUS Principal	\$ 90,000
	Total Debt Repayment	\$ 209,016
F.	Balance Available for Coverage	\$ (968)
	Short Lived Assets	\$ 30,000
	Debt Reserve	\$ 3,100
	Balance Available	\$ (34,068)
	Coverage Ratio	1.00

XV. ESTIMATED PROJECT COST – WATER

Development	<u>\$ 1,493,000</u>
Land and Rights	<u>5,000</u>
Legal	<u>15,000</u>
Engineering	<u>224,000</u>
Interest	<u>40,000</u>
Contingencies	<u>148,000</u>
Initial Operating and Maintenance	<u>0</u>
Other (Refinance existing loan)	<u>0</u>
TOTAL	<u>\$ 1,925,000</u>

XXXVI. PROPOSED PROJECT FUNDING

Applicant - User Connection Fees	\$ <u>0</u>
Other Applicant Contribution	<u>0</u>
RUS Loan	<u>893,750</u>
RUS Grant	<u>731,250</u>
ARC Grant (If applicable)	<u>300,000</u>
CDBG (If applicable)	<u></u>
Other (Specify)	<u>0</u>
Other (Specify)	<u>0</u>
TOTAL	<u>\$ 1,925,000</u>

**NCWD Water System Improvements
Summary Addendum
Funding Option 1 - 40 year Payback Schedule with Grant
First Year of Operation - Year Ending in 2021**

Total Project Cost										\$1,925,000	
Proposed Funding											
ARC Funds										\$500,000	
RD Grant Funds										\$204,000	
Proposed Bond Amount										\$1,221,000	
Proposed Debt Service											
RD Loan Annual Debt Service										\$42,800	
40 years @ 1.75%											
RD Loan Debt Service Coverage (10% of Annual Debt Service)										\$4,280	
<i>Total New Project Debt Service</i>										\$47,080	
Additional Expenses & Anticipated Debt Service											
Estimated Annual O & M Increase										\$134,612	
Short-Lived Assets										\$30,000	
Debt Reserve										\$38,500	
										+	
<i>Total Additional Expenses & Anticipated Debt Service</i>										\$203,112	
Total Annual Increase (Total New Project Debt Service + Total Additional Expenses)										\$250,192	
Balance Available for Coverage (For Planned & Ongoing Immediate Projects)										-	-\$156,560
Total Additional Annual Revenue Required										\$406,752	
Total Additional Annual Revenue Required										\$406,752	
Total 2019 Billed Water Revenue										÷	\$658,459
<i>Percentage Rate Increase</i>										50.00%	

<i>In Gallons</i>	2019 Existing Rates	Proposed Rates
5/8" x 3/4"		
first 1000	\$ 14.62	\$21.93
next 2000	\$ 6.95	\$10.43
next 2000	\$ 5.70	\$8.55
next 5000	\$ 4.55	\$6.83
next 15,000	\$ 4.10	\$6.15
All Over 25,000	\$ 3.87	\$5.81
1"		
first 3000	\$ 28.52	\$42.78
next 2000	\$ 5.70	\$8.55
next 5000	\$ 4.55	\$6.83
next 15,000	\$ 4.10	\$6.15
All Over 25,000	\$ 3.87	\$5.81
1 1/2"		
first 5000	\$ 39.92	\$59.88
next 5000	\$ 4.55	\$6.83
next 15,000	\$ 4.10	\$6.15
All Over 25,000	\$ 3.87	\$5.81
2"		
first 10,000	\$ 62.67	\$94.01
next 15,000	\$ 4.10	\$6.15
All Over 25,000	\$ 3.87	\$5.81
3"		
first 15,000	\$ 83.17	\$124.76
next 10,000	\$ 4.10	\$6.15
All Over 25,000	\$ 3.87	\$5.81
4"		
first 25,000	\$ 124.17	\$186.26
All Over 25,000	\$ 3.87	\$5.81

WMWD Water System Improvements Summary Addendum Funding Option 2 - 40 year Payback Schedule with no Grant First Year of Operation - Year Ending in 2020						
Total Project Cost						\$1,925,000
Proposed Funding						
ARC Funds						\$500,000
RD Grant Funds						\$0
Proposed Bond Amount						\$1,425,000
Proposed Debt Service						
RD Loan Annual Debt Service						\$49,840
40 years @ 1.75%						
RD Loan Debt Service Coverage (10% of Annual Debt Service)						\$4,990
<i>Total New Project Debt Service</i>						<i>\$54,830</i>
Additional Expenses & Anticipated Debt Service						
Estimated Annual O & M Increase						\$134,612
Short-Lived Assets						\$30,000
Debt Reserve						\$49,840
<i>Total Additional Expenses & Anticipated Debt Service</i>						<i>\$214,452</i>
Total Annual Increase (Total New Project Debt Service + Total Additional Expenses)						\$269,282
Balance Available for Coverage (For Planned & Ongoing Immediate Projects)						-\$156,560
Total Additional Annual Revenue Required						\$425,842
Total Additional Annual Revenue Required						\$425,842
Total 2019 Billed Water Revenue						\$658,459
<i>Percentage Rate Increase</i>						<i>65.00%</i>
	<i>In Gallons</i>	2019 Existing Rates	Proposed Rates			
	5/8" x 3/4"					
	first 1000	\$ 14.62	\$24.12			
	next 2000	\$ 6.95	\$11.47			
	next 2000	\$ 5.70	\$9.41			
	next 5000	\$ 4.55	\$7.51			
	next 15,000	\$ 4.10	\$6.77			
	All Over 25,000	\$ 3.87	\$6.39			
	1"					
	first 3000	\$ 28.52	\$47.06			
	next 2000	\$ 5.70	\$9.41			
	next 5000	\$ 4.55	\$7.51			
	next 15,000	\$ 4.10	\$6.77			
	All Over 25,000	\$ 3.87	\$6.39			
	1 1/2"					
	first 5000	\$ 39.92	\$65.87			
	next 5000	\$ 4.55	\$7.51			
	next 15,000	\$ 4.10	\$6.77			
	All Over 25,000	\$ 3.87	\$6.39			
	2"					
	first 10,000	\$ 62.67	\$103.41			
	next 15,000	\$ 4.10	\$6.77			
	All Over 25,000	\$ 3.87	\$6.39			
	3"					
	first 15,000	\$ 83.17	\$137.23			
	next 10,000	\$ 4.10	\$6.77			
	All Over 25,000	\$ 3.87	\$6.39			
	4"					
	first 25,000	\$ 124.17	\$204.88			
	All Over 25,000	\$ 3.87	\$6.39			