

VILLAGE OF FOWLER WATER RATE CALCULATION REPORT

DECEMBER 2020'



Prepared By:

Name	Title	Employer	Email
Mike Engels	Circuit Rider	Michigan Rural Water Association	mengels@mrwa.net
Rhonda Feldpausch	Clerk	Village of Fowler	
John Rademacher	Treasurer	Village of Fowler	
Vern Feldpausch	Water Superintendent	Village of Fowler	

YOUR RATE EVALUATION SHOULD BE REVIEWED BY A CERTIFIED FINANCIAL PLANNER AND YOUR ATTORNEY

**VILLAGE OF FOWLER
WATER RATE
CALCULATION REPORT**

DATE DECEMBER 2020'

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INTRODUCTION

Quality drinking water is an essential public service provided to residents. Without a water system the community would cease to exist. Over many years your community has invested in the essential infrastructure and services necessary to provide it's residents with safe and reliability drinking water.

The construction and maintenance of this infrastructure is one of the most costly investments the residents in your community will make. Community officials strive to ensure that the resident's investment in these facilities is based on sound judgment, cost effectiveness, and sustainable financing for the present and future. The purpose of analyzing utility rates is to ensure;

- a) Compliance with federal and state regulations governing utility rates, and
- b) That adequate revenue is collected through service charges to support the cost of providing the service and
- c) That the rates are equitable to all users of the service.

That is, each user's share of the cost is proportionate to their use of the system.

REVENUE REQUIREMENT = TOTAL SYSTEM COST

Ensuring that the revenue covers the total system cost means the service is "sustainable". That is, the system will serve the present needs and will continue to meet future needs.

Total system cost is comprised of the following cost components:

Operation & Maintenance (O&M) expenses. These are the daily costs of labor, materials, supplies, utilities, etc. necessary to operate and maintain the facilities.

Replacement expenses. These are costs to replace operating equipment with a useful life of 20 years or less. The sum of O&M expense and replacement expense is referred to as OM&R.

Capital improvements. These are costs to replace structural components with useful life greater than 20 years and or to expand and improve the current facilities.

Administrative expenses. These are the costs of general management, financial management, meter reading, and billing & collections.

Debt service expenses. These are the annual costs of loans or bond repayment used to finance construction and generally includes facilities and structures with a useful life of 20 years of more.

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BACKGROUND / STARTING INFORMATION	
Name of Community :	VILLAGE OF FOWLER
PHYSICAL ADDRESS	225 N MAIN ST
ZIP CODE	48835
OFFICE PHONE NUMBER	989-593-2080
BUDGET FOR FISCAL YEARS <u>STARTING</u>	2021
PRIMARY WATER SOURCE	WELLS
PRIMARY TREATMENT TYPE	MEDIUM TREATMENT FILTRATION
PRIMARY DISTRIBUTION TYPE	GRAVITY & TOWER
<u>Current Rate Structure</u>	
Are bills based on 1,000 gallons units or 100 cubic feet units?	1,000
Number of Customer Invoices per Year	4
What are the dates of the Fiscal Year	APRIL 1ST'
List the names of the different Entities Served OR RATE CLASSES - Originating Entity - RATE CLASS 1	VILLAGE OF FOWLER
2nd Entity	IRRIGATION
3rd Entity	TIMES 1.5
4th Entity	IRRIGATION AT 1.5

VILLAGE OF FOWLER				
CURRENT RATE CHARGES & NUMBER OF CUSTOMERS				
Customers Are Invoice QUARTERLY PER				
VILLAGE OF FOWLER				
TYPE OF WATER UNITS	1,000 GALLONS	THESE ARE VILLAGE OF FOWLER CUSTOMERS - "WATER METERED" = 492 4,000 GALLONS INCLUDED IN INITIAL BILL PER QUARTER		
COST PER 1,000 GAL.	\$2.05			
INVOICES PER YEAR	4			
NUMBER OF UNITS PER ACCT.	CURRENT "BASE RATE" CHARGE	NUMBER OF ACCOUNTS	INVOICES PER YEAR	ANNUAL INCOME
1	\$39.00	492	4	\$76,752
2	\$78.00	4	4	\$1,248
3	\$117.00	2	4	\$936
4	\$156.00	1	4	\$624
16	\$624.00	1	4	\$2,496
TOTALS		500		\$82,056

WHO PROVIDED # OF METERS COUNT	RHONDA
WAS A REPORT USED TO GENERATE THIS DATA?	YES
IF SO, NAME OF REPORT	CUSTOMER SUMMARY BY RATE
WAS A COPY OF THE REPORT SAVED	YES AS A SEPARATE FILE

IRRIGATION					
TYPE OF WATER UNITS	1,000 GALLON	Ratio Entity # 2 vs. 1	THESE ARE VILLAGE OF FOWLER CUSTOMERS - IRRIGATION METERS PAY ONLY FOR WATER THAT GOES THROUGH THE METER. NO FIXED FEE		
COST PER WATER UNIT	\$2.05	1.00			
INVOICES PER YEAR	4				
NUMBER OF UNITS PER ACCT.	CURRENT "BASE RATE" CHARGE	Ratio Entity # 2 vs. 1	NUMBER OF ACCOUNTS	INVOICES PER YEAR	ANNUAL INCOME
1	\$0.00	0.00	50	4	\$0
2				4	\$0
3				4	\$0
4				4	\$0
16				4	\$0
			50		\$0

Current Rate Charges
 All customers are charged \$39.00 per unit per quarter.
 All customers are charged for 4,000 gallons per unit per quarter regardless of actual use.

The \$39.00 per unit per quarter includes the cost of 4,000 gallons.
 Customers are charged by the 1,000 gallon unit at the rate listed above for all gallons in excess of (the number of units, times 4,000)

CUSTOMER ACCOUNTS ARE INVOICED BASED ON THE NUMBER OF UNITS PER ACCOUNT.
 FOR INSTANCE A 2 UNIT DUPLEX WOULD BE INVOICED FOR 2 UNITS.

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

TIMES 1.5						IRRIGATION AT 1.5					
TYPE OF WATER UNITS	1,000 GALLONS	Ratio Entity # 3 vs 1	THESE ARE THE NON-TAXABLE & THE NON-RESIDENTIAL CUSTOMERS			TYPE OF WATER UNITS	1,000 GALLON	Ratio Entity # 4 vs 1	THESE ARE THE NON-TAXABLE & THE NON-RESIDENTIAL CUSTOMERS - IRRIGATION METERS PAY ONLY FOR WATER THAT GOES THROUGH THE METER. NO FIXED FEE		
COST PER WATER UNIT	\$3.08	1.50				COST PER WATER UNIT	\$3.08	1.50			
INVOICES PER YEAR	4					INVOICES PER YEAR	4				
NUMBER OF UNITS PER ACCT.	CURRENT "BASE RATE" CHARGE	Ratio Entity # 3 vs 1	NUMBER OF ACCOUNTS	INVOICES PER YEAR	ANNUAL INCOME	NUMBER OF UNITS PER ACCT.	CURRENT "BASE RATE" CHARGE	Ratio Entity # 4 vs 1	NUMBER OF ACCOUNTS	INVOICES PER YEAR	ANNUAL INCOME
1	\$58.50	1.50	13	4	\$3,042	1	\$0.00	0.00	1	4	\$0
2				4	\$0	2				4	\$0
3				4	\$0	3				4	\$0
4				4	\$0	4				4	\$0
16				4	\$0	16				4	\$0
			13		\$3,042				1		\$0

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

METER EQUIVALENTS BY SIZE AND COST RATIO

100%

2021 YEAR 1	CURRENT CHARGES RATE CLASS 1		RATE CLASS 2			
	VILLAGE OF FOWLER		IRRIGATION			
NUMBER OF UNITS PER ACCT.	NUMBER OF ACCOUNTS	INVOICE FREQUENCY	NUMBER OF ACCOUNTS	TOTAL CUSTOMERS ALL ENTITIES	NUMBER OF UNITS PER ACCOUNT	ANNUAL METER EQUIVALENTS
1	492	4	50	556	1.00	2,046
2	4	4	0	4	2.00	32
3	2	4	0	2	3.00	24
4	1	4	0	1	4.00	16
16	1	4	0	1	16.00	64
TOTAL	500		50	564		
ANNUAL METER <u>EQUIVALENTS</u> USED FOR RATE CALCULATION						2,182
<input checked="" type="checkbox"/> CHECK BOX TO CONFIRM THAT METER EQUIVALENT RATIOS WERE DISCUSSED AND CHOSEN BY COMMUNITY						

This table calculates the annual meter equivalent REU's (Residential Equivalent Meters). This figure will be used to calculate the Ready to Serve Charge for each meter size.

2017

	ALL GALLONS	GALLONS 4 & UNDER	GALLONS OVER	
Add'l Meter-Same Location INCLUDES ALL GALLONS	1,499,000		1,499,000	
Water Metered & WATER UNITS 1 UNIT- ONLY OVER 4K		6,552,000	15,456,000	
Water Metered & WATER UNITS 2 UNIT- ONLY OVER 4K - 2 x 4 = 8		148,000	115,000	
Water Metered & WATER UNITS 3 UNIT- ONLY OVER 4K - 3 x 4 = 12		96,000	129,000	
Water Metered & WATER UNITS 4 UNIT- ONLY OVER 4K - 4 x 4 = 16		64,000	48,000	
Water Metered & WATER UNITS 16 UNIT- ONLY OVER 4K - 4 x 16 = 64		0	0	
TOTAL				17,247,000
Irrigation VILLAGE INCLUDES ALL GALLONS	4,043,000		4,043,000	
Water Non-Residential - OVER 4K		48,000	99,000	
Water Non-Taxable - OVER 4K		133,000	745,000	
COMBINED				844,000
Irrigation Non-Taxable - INCLUDES ALL GALLONS	98,000		98,000	
TOTALS	5,640,000	7,041,000	22,232,000	

	2018	ALL GALLONS	4,000 GALLONS & UNDER	GALLONS OVER
Add'l Meter-Same Location INCLUDES ALL GALLONS		1,521,000		1,521,000
Water Metered & WATER UNITS 1 UNIT- ONLY OVER 4K			6,641,000	15,070,000
Water Metered & WATER UNITS 2 UNIT- ONLY OVER 4K - 2 x 4 = 8			155,000	182,000
Water Metered & WATER UNITS 3 UNIT- ONLY OVER 4K - 3 x 4 = 12			96,000	233,000
Water Metered & WATER UNITS 4 UNIT- ONLY OVER 4K - 4 x 4 = 16			64,000	50,000
Water Metered & WATER UNITS 16 UNIT- ONLY OVER 4K - 4 x 16 = 64			0	0
TOTAL				17,056,000
Irrigation VILLAGE INCLUDES ALL GALLONS		3,142,000		3,142,000
Water Non-Residential - OVER 4K			48,000	98,000
Water Non-Taxable - OVER 4K			126,000	819,000
COMBINED				917,000
Irrigation Non-Taxable - INCLUDES ALL GALLONS		68,000		68,000
TOTALS		4,731,000	7,130,000	21,183,000

	2019	ALL GALLONS	4 ,000 GALLONS & UNDER	GALLONS OVER
Add'l Meter-Same Location INCLUDES ALL GALLONS		3,383,000		3,383,000
Water Metered & WATER UNITS 1 UNIT- ONLY OVER 4K			6,868,000	15,103,000
Water Metered & WATER UNITS 2 UNIT- ONLY OVER 4K - 2 x 4 = 8			139,000	245,000
Water Metered & WATER UNITS 3 UNIT- ONLY OVER 4K - 3 x 4 = 12			81,000	44,000
Water Metered & WATER UNITS 4 UNIT- ONLY OVER 4K - 4 x 4 = 16			60,000	32,000
Water Metered & WATER UNITS 16 UNIT- ONLY OVER 4K - 4 x 16 = 64			246,000	117,000
TOTAL				18,924,000
Irrigation VILLAGE INCLUDES ALL GALLONS		1,908,000		1,908,000
Water Non-Residential -			48,000	94,000
Water Non-Taxable -			134,000	839,000
COMBINED				933,000
Irrigation Non-Taxable - INCLUDES ALL GALLONS		31,000		31,000
TOTALS		5,322,000	7,576,000	21,796,000

VILLAGE OF FOWLER		UNITS OF WATER INVOICED TO CUSTOMERS			FOR THIS EVALUATION WE WILL USE THE		LOWEST			
USAGE REPORTED IN		GALLONS								
USAGE REPORTED IN		FISCAL YEARS								
		2017	2018	2019	AVERAGE	MAX. YEAR	MIN. YEAR	PERCENT DIFFERENCE FROM MAX. TO MIN. YEAR	ANTICIPATED PERCENT INCREASE NEXT YEAR	UNITS USED IN RATE EVALUATION
VILLAGE OF FOWLER		17,247,000	17,056,000	18,924,000	17,742,333	18,924,000	17,056,000	10%	0.0%	17,056,000
IRRIGATION		4,043,000	3,142,000	1,908,000	3,031,000	4,043,000	1,908,000	53%	0.0%	1,908,000
TIMES 1.5		844,000	917,000	933,000	898,000	933,000	844,000	10%	0.0%	844,000
IRRIGATION AT 1.5		98,000	68,000	31,000	65,667	98,000	31,000	68%	0.0%	31,000
TOTALS		22,232,000	21,183,000	21,796,000	21,737,000	23,998,000	19,839,000	35%		19,839,000
WHO PROVIDED UNITS SOLD REPORT	RHONDA									
WAS AN ELECTRONIC COPY KEPT	YES									
										CUBIC FEET / VOLUME USED FOR EVALUATION
										19,839,000

The Volumes listed above are only those gallons that are a revenue source. The gallons listed above were generated by the COMMUNITY. The COMMUNITY takes full responsibility for the accuracy of these numbers. And the anticipated units of water invoiced used to calculate the user rates.

X	CHECK BOX TO CONFIRM THAT UNITS USED FOR EVALUATION WAS DISCUSSED AND CHOSEN BY COMMUNITY
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13 **ANNUAL BUDGET / EXPENSES INDEX**

14 BANK BALANCES

15 OPERATING EXPENSES

16 NON-SALES & OTHER REVENUE

VILLAGE OF FOWLER

BALANCE PER BOOKS

CHECKING ACOUNTS

Name of Account / Description	Purpose	Balance
FROM JOHN ESTIMATE NO OTHER MONEY		\$ 50,000
Total Balance		\$50,000

GENERAL CHECKING \$50,000

GENERAL RESERVE \$0

TOTAL AVAILABLE UNRESTRICTED	\$50,000
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BALANCES WERE OBTAINED ON DATE OF

12/2020'

GENERAL RESERVE ACCOUNTS

INCLUDING RRI, INTEREST & REDEMPTION - ETC

Name of Account / Description	Purpose	Balance
Total Balance		\$0

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

VILLAGE OF FOWLER	PROPOSED BUDGET FOR FISCAL YEAR	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET
ANNUAL PERCENT INCREASE		3.00%	3.00%	3.00%	3.00%
OPERATING EXPENSES	2021	2022	2023	2024	2025
Salaries - DPW	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883
Salaries - Clerk	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
Supplies	\$7,500	\$7,725	\$7,957	\$8,195	\$8,441
Contractual Services	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255
Audit Fees	\$500	\$515	\$530	\$546	\$563
Utilities - Gas & Electric	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255
Water Meters	\$4,000	\$4,120	\$4,244	\$4,371	\$4,502
Telephone	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Equipment Repair	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Equipment Rental	\$8,000	\$8,240	\$8,487	\$8,742	\$9,004
Insurance	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814
Other - Fees & Subscriptions	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
Other - Miscellaneous	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
Other - Bank Service Chg	\$0	\$0	\$0	\$0	\$0
		\$0	\$0	\$0	\$0
TOTAL	\$72,500	\$74,675	\$76,915	\$79,223	\$81,599

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

VILLAGE OF FOWLER		YEAR 2	YEAR 3	YEAR 4	YEAR 5	
NON-SALES & OTHER REVENUE		2021	2022	2023	2024	2025
Water Tower Lease/Rent	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	
Penalties/Usage	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	
Hook-ups	\$4,000					
Meter Income	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
TOTAL INCOME (NON SALES)	\$11,500	\$7,500	\$7,500	\$7,500	\$7,500	
AVERAGE NON SALES INCOME	\$2,875	\$4,750	\$6,625	\$8,500	\$7,500	
Portion of (Non Sales) Revenue Guaranteed	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
Percent Applied Towards Fixed Rate RTS Charge - PERCENT applied per REU	37%	37%	37%	37%	37%	
APPLIED TOWARDS FIXED BUDGET - BASE RATE - RTS	\$1,858	\$1,858	\$1,858	\$1,858	\$1,858	
ANNUAL RESIDENTIAL EQUIVALENT UNITS "REU'S"	2,182	2,182	2,182	2,182	2,182	
REDUCTION PER REU PER BILLING PERIOD	\$0.85	\$0.85	\$0.85	\$0.85	\$0.85	
APPLIED TOWARDS VARIABLE BUDGET - PER UNIT	\$3,142	\$3,142	\$3,142	\$3,142	\$3,142	
ANNUAL UNITS OF WATER OR SEWER INVOICED	19,839	19,839	19,839	19,839	19,839	
REDUCTION PER UNIT OF WATER OR SEWER	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	

A portion of this revenue will be re-applied back to the water budget to help lower the water rates.

17 **LOAN / DEBT INFORMATION INDEX**

18 DEBT SCHEDULE / AMORTIZATION SCHEDULE PRINCIPAL & INTEREST

VILLAGE OF FOWLER

2021

DEBT SCHEDULE / AMORTIZATION SCHEDULE PRINCIPAL & INTEREST

	1	2	3	4	5	6	7	8	9	10
FISCAL YEAR STARTING	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
2007 MUNICIPAL BOND	\$45,861	\$45,011	\$44,161	\$43,311	\$42,461	\$46,611	\$31,510			
WATER SYSTEM IMPROVEMENTS ?										
DATE OF ISSUE	2007									
DATE OF MATURITY	2027									
PAID BY RATES	YES									
RESERVE REQUIREMENT	NO									
NEW VESSEL AT IRON REMOVAL PLANT	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866
ADDITIONAL VESSEL AT IRON PLANT										
ESTIMATED COST PER REU	\$13.23									
DATE OF ISSUE	2021									
DATE OF MATURITY	2041									
PAID BY RATES	YES									
RESERVE REQUIREMENT	NO									
TOTAL CURRENT ANNUAL DEBT PAYMENTS	\$74,727	\$73,877	\$73,027	\$72,177	\$71,327	\$75,477	\$60,376	\$28,866	\$28,866	\$28,866

19	<u>CAPITAL IMPROVEMENT & EQUIPMENT REPLACEMENT INDEX</u>
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21	EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHE
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VILLAGE OF FOWLER									
EQUIPMENT REPLACEMENT SHORT LIVED ASSETS									
2021									
SHORT LIVED ASSETS SOMEWHERE BETWEEN 0-15 OR 20 YEARS									
FIXED ASSET INVENTORY		ASSET REPLACEMENT SCHEDULE							
EQUIPMENT LIST / MAINTENANCE ACTIVITY	DESCRIPTION / MAINTENANCE HISTORY	ORIGINAL INSTALLATION YEAR OR LAST REHAB YEAR	ESTIMATED NORMAL INTENDED USEFUL LIFE	CURRENT AGE	NEXT ANTICIPATED REPLACEMENT YEAR	REMAINING LIFE - YEARS BEFORE REPLACEMENT	TOTAL REPLACEMENT COST	PERCENT OF ASSET LEFT	REPLACEMENT MONEY RESERVED ANNUALLY
WELL 6 - NEW 1980									
TURBINE PUMP	2019 REHAB	2019	8	2	2027	6	\$20,000	75%	\$2,500
CLEANING OF WELL "CHEMICAL"		2016	8	5	2024	3	\$15,000	38%	\$1,875
SCADA SYSTEM FOR BOTH WELLS	NEW 2020	2020	20	1	2040	19	\$23,000	95%	\$1,150
GETTING NEW GENERATOR 2021 FOR BOTH WELLS - WILL NOT LIST HERE - UNTIL LAST 20 YRS OF LIFE									
WELL 8 NEW 2007									
TURBINE PUMP	2018 REHAB	2018	8	3	2026	5	\$20,000	63%	\$2,500
CLEANING OF WELL - CHEMICAL		2015	6	6	2021	0	\$15,000	0%	\$2,500
IRON REMOVAL PLANT - INSTALLED 2007									
MEDIA REPLACEMENT VESSEL 1 & 2	MEDIA REPLACEMENT FOR BOTH VESSELS @ 16K EACH	2007	21	14	2028	7	\$30,000	33%	\$1,429
NEW VESSEL 3 GOING IN 2021	MEDIA REPLACEMENT	2020	21	1	2041	20	\$15,000	95%	\$714
BACKWASH CONTROLS & VALVING ETC	ALL NEW 2021	20	20	2001	40	-1981	\$10,000	-9905%	\$500
WATER TOWER INTERIOR PAINTING	SAND BLASTED IN 2018	2019	15	2	2034	13	\$70,000	87%	\$4,667
WATER TOWER EXTERIOR PAINTING	DONE IN 2007 & 2018 WAS SAND BLASTED	2019	11	2	2030	9	\$40,000	82%	\$3,636
DRY INTERIOR SPOT PAINTING		2019	15	2	2034	13	\$5,000	87%	\$333
TOWER INSPECTION EVERY 6 YRS		2019	6	2	2025	4	\$2,500	67%	\$417
WATER METERS PART OF O&M BUDGET AS NEEDED									

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHEET

COST OF LIVING INCREASE	2.00%
CURRENT RESERVE BALANCE APPLIED TO THIS ACCOUNT - INCLUDES RRI BALANCE	\$0
AVG. INTEREST RATE IN SAVINGS	0.10%

Annual Funding Applied to Budget / Rates	<u>\$25,000</u>
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YEAR	PURPOSE	ANNUAL REPLACEMENT EXPENDITURES WITH C.O.L.	FUNDING WITH COLA	RUNNING BALANCE
2021	SEE EQUIPMENT LIST FOR DETAILS OF ANTICIPATED PURCHASES	\$15,000	<u>\$25,000</u>	\$10,025
2022		\$0	\$25,000	\$35,035
2023		\$0	\$25,000	\$60,070
2024		\$15,900	\$25,000	\$69,230
2025		\$2,700	\$25,000	\$91,599
2026		\$22,000	\$25,000	\$94,691
2027		\$39,200	\$25,000	\$80,586
2028		\$34,200	\$25,000	\$71,466
2029		\$0	\$25,000	\$96,538
2030		\$47,200	\$25,000	\$74,434
2031		\$3,000	\$25,000	\$96,509
2032		\$18,300	\$25,000	\$103,305
2033		\$18,600	\$25,000	\$109,808
2034	ANTICIPATED WATER TOWER PAINTING	\$119,700	\$25,000	\$15,218
2035		\$25,600	\$25,000	\$14,634
2036		\$0	\$25,000	\$39,648
2037		\$3,300	\$25,000	\$61,388
2038		\$0	\$25,000	\$86,449
2039		\$20,400	\$25,000	\$91,136
2040		\$52,440	\$25,000	\$63,787
2041		\$77,000	\$25,000	\$11,851

VILLAGE OF FOWLER	2021					
CAPITAL IMPROVEMENT PROJECTS SUMMARY		PERCENT DOWNPAYMENT				0%
CAPITAL IMPROVEMENT IDEAS WERE GENERATED FROM		NO WATER MAINS IN NEXT 10 YRS - OLDEST WATER MAINS IN TOWN 1977 - NEW VESSEL FOR WATER PLANT IN 2021 -				
MRWA DOES NOT RECOMMEND OR SUGGEST FINANCING OPTIONS. IT IS UP TO THE COMMUNITY AND THEIR ADVOCATES TO DECIDE WHAT FINANCING OPTIONS WORK BEST FOR THEM AND THEIR FUTURE PROJECTS.						
CAPITAL PROJECTS - FOR DETAILS OF EACH PROJECT SEE INDIVIDUAL PAGES						
	ESTIMATED PROJECT COST	CASH CONTRIBUTION FROM RATES	AMOUNT FINANCED	COMPLETE IN YEAR OF	IS THIS YEAR FLEXIBLE?	MONEY NEEDED ANNUALLY
NEW IRON TREATMENT VESSEL # 3 BEING INSTALLED IN 2021	\$450,000	\$0	\$450,000	2021	YES	
			\$0			\$0
			\$0			\$0
			\$0			\$0
			\$0			\$0
			\$0			\$0

CAPITAL PROJECTS POSSIBLE LOAN INFORMATION

2.00%

THIS IS A ESTIMATED PROJECTION ON A POSSIBLE LOAN FOR THE LISTED CAPITAL PROJECTS. THIS INFORMATION SHOULD BE REVIEWED WITH A CERTIFIED FINANCIAL PLANNER - MRWA IS NOT A CERTIFIED FINANCIAL PLANNER

	ESTIMATED AMOUNT FINANCED with COLA	INTEREST RATE	LENGTH OF LOAN IN YEARS	ESTIMATED ANNUAL LOAN PAYMENT	COST PER REU
2021	\$450,000	2.50%	20	\$28,866	\$13.23
2022	\$0				
2023	\$0				
2024	\$0				
2025	\$0				
2026	\$0				
2027	\$0				

VILLAGE OF FOWLER

WATER RATE

CALCULATION REPORT

PAGE #

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MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

FINAL ANALYSIS RATE CALCULATION - CURRENT FISCAL YEAR	2021			RTS CHARGE		VOLUME CHARGE
VILLAGE OF FOWLER	ANNUAL BUDGET	ASSIGNED AS FIXED EXPENSES	ANTICIPATED ANNUAL METER EQUIVALENTS	COST PER METER EQUIVALENT	ASSIGNED AS VARIABLE EXPENSES	\$ COST PER 1,000 GALLONS
OPERATING EXPENSES	\$72,500	\$26,941	2,182	\$12.35	\$45,559	\$2.247
DEBT - PRINCIPAL & INTEREST ANNUAL PAYMENTS						
2007 MUNICIPAL BOND	\$45,861	\$45,861	2,182	\$21.02	\$0	\$0.00
NEW VESSEL AT IRON REMOVAL PLANT	\$28,866	\$28,866	2,182	\$13.23	\$0	\$0.00
ANNUAL DEBT PAYMENTS PRINCIPAL & INTEREST	\$74,727	\$74,727		\$34.25	\$0	\$0.00
ANNUAL O & M + DEBT	\$147,227	\$101,668		\$46.59	\$45,559	\$2.25
BULK WATER SALES INCOME APPLIED TO WATER BUDGET	\$5,000	\$1,858		0.852	\$3,142	0.155
EQUIPMENT REPLACEMENT AVERAGE ANNUAL BUDGETED AMOUNT	\$25,000	\$9,290	2,182	\$4.26	\$15,710	\$0.77
CAPITAL IMPROVEMENT AVERAGE ANNUAL BUDGETED AMOUNT	\$0	\$0	2,182	\$0.00	\$0	\$0.00
ADOPTED BUDGET	\$172,227	\$110,958	2,182		\$61,269	
REVENUE COLLECTED CALCULATED RATES	\$167,227	\$109,100			\$58,127	
REVENUE COLLECTED CURRENT RATES	\$130,768					
CALCULATED RATE PER METER EQUIVALENT		PER QUARTER		\$50.00	RATE PER 1,000 GAL.	\$2.87
ANNUAL METER EQUIVALENTS / REU'S COUNT 2,182		CURRENT RATES		\$39.00		\$2.05
ANTICIPATED EQUIVALENT GALLONS / UNITS 20,277		PERCENT INCREASE		28.2%		39.8%
INVOICES PER YEAR 4		INCREASE OF		\$11.00		\$0.82
THIS RATE INCLUDES 4,000 GALLONS PER CUSTOMER UNIT PER QUARTER	PERCENT RESERVE 14.5%					

2021

SUMMARY OF NEW CHARGES "ALL ENTITIES"

VILLAGE OF FOWLER				
	CURRENT	NEW	DIFFERENCE	
PER 1,000 GAL.	\$2.05	\$2.87	\$0.82	
2021	CURRENT	NEW	DIFFERENCE PER QUARTER	
NUMBER OF UNITS PER ACCT.	READY TO SERVE PER QUARTER	READY TO SERVE PER QUARTER	NUMBER OF UNITS PER ACCOUNT	
1	\$39.00	\$50.00	1.00	\$11.00
2	\$78.00	\$100.00	2.00	\$22.00
3	\$117.00	\$150.00	3.00	\$33.00
4	\$156.00	\$200.00	4.00	\$44.00
16	\$624.00	\$800.00	16.00	\$176.00

IRRIGATION	
CURRENT	NEW
\$2.05	\$2.87

TIMES 1.5	
CURRENT	NEW
\$3.08	\$4.30
CURRENT	NEW
READY TO SERVE PER QUARTER	
\$58.50	\$75.00
\$0.00	\$150.00
\$0.00	\$225.00
\$0.00	\$300.00
\$0.00	\$1,200.00

IRRIGATION AT 1.5	
CURRENT	NEW
\$3.08	\$4.30

These are the calculated rates charges based on the input data.

THIS PAGE REFLECTS THE CALCULATED RATES CHARGES FROM THE FINAL ANALYSIS CURRENT YEAR. IT INCLUDES A COLA ON THE O&M & LABOR EXPENSES

VILLAGE OF FOWLER

TEN YEAR PROJECTIONS PAGE

LOAN IS PAID OFF

SUMMARY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5		YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
ANTICIPATED REVENUE	\$172,227	\$175,572	\$178,983	\$182,463	\$186,012		\$186,012	\$186,012	\$186,012	\$186,012	\$186,012
ANTICIPATED EXPENSES	\$147,227	\$148,552	\$149,942	\$151,400	\$152,927		\$159,525	\$146,945	\$118,032	\$120,707	\$123,462
GAINS/ LOSSES <u>BEFORE</u> EQUIPMENT & CAPITAL	\$25,000	\$27,020	\$29,041	\$31,063	\$33,086		\$26,487	\$39,067	\$67,980	\$65,305	\$62,550
TOTAL COMBINED EQUIPMENT & CAPITAL ACTICIPATED EXPENDITURES	\$15,000	\$0	\$0	\$15,900	\$2,700		\$22,000	\$39,200	\$34,200	\$0	\$47,200
GAINS / LOSSES FOR FISCAL YEAR <u>AFTER</u> EQUIPMENT & CAPITAL	\$10,000	\$27,020	\$29,041	\$15,163	\$30,386		\$4,487	(\$133)	\$33,780	\$65,305	\$15,350
<u>STARTING</u> CASH AVAILABLE / BANK BALANCE	\$50,000										
ANTICIPATED END OF YEAR - AVAILABLE CASH BALANCE	\$60,000	\$87,020	\$116,060	\$131,223	\$161,609		\$166,096	\$165,963	\$199,743	\$265,048	\$280,398

CALCULATED REVENUE						PERCENT INCREASE ON "RTS"				
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
		2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CALCULATED RATE CHARGE PER "METER EQUIVALENT" / REU	\$50.00	\$51.00	\$52.02	\$53.06	\$54.12	\$54.12	\$54.12	\$54.12	\$54.12	\$54.12
ANNUAL METER EQUIVALENTS / REU'S COUNT	2,182	2,182	2,182	2,182	2,182	2,182	2,182	2,182	2,182	2,182
REVENUE FROM METER EQUIVALENT CHARGE (RTS)	\$109,100.00	\$111,282.00	\$113,507.64	\$115,777.79	\$118,093.35	\$118,093.35	\$118,093.35	\$118,093.35	\$118,093.35	\$118,093.35
						PERCENT INCREASE ON COST PER UNIT				
		YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
		2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CALCULATED RATE CHARGE PER UNIT OF WATER / SEWER	\$2.87	\$2.92	\$2.98	\$3.04	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10	\$3.10
REVENUE FROM VOLUME SALES	\$58,127.14	\$59,289.69	\$60,475.48	\$61,684.99	\$62,918.69	\$62,918.69	\$62,918.69	\$62,918.69	\$62,918.69	\$62,918.69
TOTAL NON-SALES & OTHER INCOME	\$11,500	\$7,500	\$7,500	\$7,500	\$7,500	\$0	\$0	\$0	\$0	\$0
TOTAL NON-SALES & OTHER INCOME APPLIED TO WATER BUDGET	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
TOTAL COMBINED REVENUE	\$172,227	\$175,572	\$178,983	\$182,463	\$186,012	\$186,012	\$186,012	\$186,012	\$186,012	\$186,012

EXPENSES	BUDGET FOR FISCAL YEARS STARTING					2026	2027	2028	2029	2030
	2021	2022	2023	2024	2025					
		PERCENT INCREASE (COST OF LIVING ETC) <i>ON BUDGET</i>								
OPERATING EXPENSES		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
OPERATING EXPENSES	\$72,500	\$74,675	\$76,915	\$79,223	\$81,599	\$84,047	\$86,569	\$89,166	\$91,841	\$94,596
DEBT EXPENSES - PRINCIPAL & INTEREST		2022	2023	2024	2025	2026	2027	2028	2029	2030
2007 MUNICIPAL BOND	\$45,861	\$45,011	\$44,161	\$43,311	\$42,461	\$46,611	\$31,510	\$0	\$0	\$0
NEW VESSEL AT IRON REMOVAL PLANT	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866	\$28,866
ANNUAL DEBT PAYMENTS PRINCIPAL & INTEREST	\$74,727	\$73,877	\$73,027	\$72,177	\$71,327	\$75,477	\$60,376	\$28,866	\$28,866	\$28,866
MINIMUM REQUIRED EXPENSES / BUDGET	\$147,227	\$148,552	\$149,942	\$151,400	\$152,927	\$159,525	\$146,945	\$118,032	\$120,707	\$123,462
GAINS / LOSSES <u>BEFORE</u> EQUIPMENT & CAPITAL EXPENSES	\$25,000	\$27,020	\$29,041	\$31,063	\$33,086	\$26,487	\$39,067	\$67,980	\$65,305	\$62,550
EQUIPMENT REPLACEMENT ANTICIPATED ACTUAL EXPENDITURES	\$15,000	\$0	\$0	\$15,900	\$2,700	\$22,000	\$39,200	\$34,200	\$0	\$47,200
CAPITAL IMPROVEMENT <u>ANTICIPATED EXPENDITURES</u>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL COMBINED EQUIPMENT & CAPITAL ACTICIPATED EXPENDITURES	\$15,000	\$0	\$0	\$15,900	\$2,700	\$22,000	\$39,200	\$34,200	\$0	\$47,200
TOTAL ANTICIPATED ACTUAL CASH ANNUAL EXPENDITURES	\$162,227	\$148,552	\$149,942	\$167,300	\$155,627	\$181,525	\$186,145	\$152,232	\$120,707	\$170,662
GAINS / LOSS FOR FISCAL YEAR - <u>AFTER</u> EQUIPMENT & CAPITAL EXPENDITURES	\$10,000	\$27,020	\$29,041	\$15,163	\$30,386	\$4,487	-\$133	\$33,780	\$65,305	\$15,350
<u>STARTING</u> CASH AVAILABLE / BANK BALANCE	\$50,000									
<u>ENDING</u> CASH AVAILABLE / BANK BALANCE	\$60,000	\$87,020	\$116,060	\$131,223	\$161,609	\$166,096	\$165,963	\$199,743	\$265,048	\$280,398

VILLAGE OF FOWLER

COST PER	CURRENT RATES	CALCULATED RATES	DIFFERENCE
1,000 GAL.	\$2.05	\$2.867	\$0.82
READY TO SERVE (RTS) CHARGES PER QUARTER			
NUMBER OF UNITS PER ACCT.	CURRENT RATES	CALCULATED RATES	DIFFERENCE
1	\$39.00	\$50.00	\$11.00
2	\$78.00	\$100.00	\$22.00
3	\$117.00	\$150.00	\$33.00
4	\$156.00	\$200.00	\$44.00
16	\$624.00	\$800.00	\$176.00

The above rates are based on an input budget of	\$172,227
The above rates are based on invoicing the following gallons of water / sewer	19,839,000
The above rates are based on the following number of customers	564
The above rates are based on the following number of Residential Equivalent Units (REU's)	2,182

If all numbers listed above stay true the new calculated rates will generate the input budget "exactly". Not a penny more or a penny less.

This Rate Analysis uses "Full Cost Pricing" to determine the user fees.

The above table shows the Current Rate, the new Calculated Rate, and the difference between the current and new rate changes.

Full Cost Pricing Is:

Maintaining your system's financial stability by ensuring a sufficient revenue stream.

Collect and reserve the funds needed to cover the costs of future asset rehabilitation and compliance with future regulations, among other things.

Plan ahead for reasonable, gradual rate increases when necessary.

Deliver a fair priced, high-quality drinking water to your customers now and in the future.

NOTE:

The above CALCULATED RATES will generate only enough to meet the current budget input into the rate analysis program. In order to charge a lesser amount, the budget must first be reduced.

TYPICAL BILL COMPARISON USING NEW RATES				OLD RTS \$39.00			\$ PER 1,000 GAL.
VILLAGE OF FOWLER	COST PER UNIT OF WATER \$2.87	QUARTERLY		OLD COST PER UNIT OF WATER \$2.05			
NUMBER OF UNITS PER ACCT.	GALLONS USED	VOLUME CHARGE	BASE RATE CHARGE	NEW BILL	OLD BILL	CHANGE IN BILL	PERCENT INCREASE
1	1,000	\$0.00	\$50.00	\$50.00	\$39.00	\$11.00	28.2%
1	3,000	\$0.00	\$50.00	\$50.00	\$39.00	\$11.00	28.2%
1	4,000	\$0.00	\$50.00	\$50.00	\$39.00	\$11.00	28.2%
1	10,000	\$17.20	\$50.00	\$67.20	\$51.30	\$15.90	31.0%
1	15,000	\$31.53	\$50.00	\$81.53	\$61.55	\$19.98	32.5%
2	50,000	\$131.87	\$100.00	\$231.87	\$172.30	\$59.57	34.6%
3	75,000	\$203.54	\$150.00	\$353.54	\$262.55	\$90.99	34.7%
4	25,000	\$60.20	\$200.00	\$260.20	\$199.05	\$61.15	30.7%
16	200,000	\$561.88	\$800.00	\$1,361.88	\$1,025.80	\$336.08	32.8%
GALLONS INCLUDED MIN BILL				4,000	4,000		

This page provides confirmation of income based on the results of the rate analysis, if the calculated rates below are adopted. It only applies to this current or upcoming fiscal year. See five year projections for additional information.

CONFIRMATION OF INCOME - BASED ON CALCULATED RATES - ALL ENTITIES YEAR

VILLAGE OF FOWLER					2021
	VILLAGE OF FOWLER	RATE CLASS 2	RATE CLASS 3	RATE CLASS 4	
		IRRIGATION	TIMES 1.5	IRRIGATION AT 1.5	REVENUE
	New Cost per Unit of Water Sold				NEW RATES
\$ PER 1,000 GAL.	\$2.867	\$2.867	\$4.300	\$4.300	
UNITS Sold	17,056	1,908	844	31	19,839
Income	\$48,895	\$5,470	\$3,629	\$133	\$58,127
NON SALES INCOME APPLIED TO VARIABLE BUDGET					\$3,142
TOTAL ANTICIPATED REVENUE PER UNIT SALES					\$61,269
METER SIZE	NEW BASE RATE PER QUARTER				
1	\$50.000	\$0.000	\$75.000	\$0.000	
NO. CUSTOMERS	492	50	13	1	
INVOICES PER YEAR	4	4	4	4	
ANNUAL INVOICES	1,968	200	52	4	
INCOME	\$98,400.00	\$0.00	\$3,900.00	\$0.00	\$102,300
2	\$100.00	\$0.00	\$150.00	\$0.00	
NO. CUSTOMERS	4	0	0	0	
INVOICES PER YEAR	4	4	4	4	
ANNUAL INVOICES	16	0	0	0	
INCOME	\$1,600.00	\$0.00	\$0.00	\$0.00	\$1,600
3	\$150.00	\$0.00	\$225.00	\$0.00	
NO. CUSTOMERS	2	0	0	0	
INVOICES PER YEAR	4	4	4	4	
ANNUAL INVOICES	8	0	0	0	
INCOME	\$1,200.00	\$0.00	\$0.00	\$0.00	\$1,200
4	\$200.00	\$0.00	\$300.00	\$0.00	
NO. CUSTOMERS	1	0	0	0	
INVOICES PER YEAR	4	4	4	4	
ANNUAL INVOICES	4	0	0	0	
INCOME	\$800.00	\$0.00	\$0.00	\$0.00	\$800
16	\$800.00	\$0.00	\$1,200.00	\$0.00	
NO. CUSTOMERS	1	0	0	0	
INVOICES PER YEAR	4	4	4	4	
ANNUAL INVOICES	4	0	0	0	
INCOME	\$3,200.00	\$0.00	\$0.00	\$0.00	\$3,200
Fixed Income					\$109,100
NON SALES INCOME APPLIED TO FIXED BUDGET					\$1,858
TOTAL ANTICIPATED REVENUE BASE RATE / RTS + NONE SALES INCOME					\$110,958
TOTAL COMBINED CUSTOMER INCOME = BASE RATE + VOLUME INCOME					\$172,227
TOTAL COMBINED CUSTOMER INCOME					\$172,227
Budget Goal					\$172,227
Difference					\$0