

GUN LAKE AREA SEWER AUTHORITY WASTEWATER RATE CALCULATION REPORT

SEPTEMBER 2024'



Prepared By:

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

**GUN LAKE AREA SEWER AUTHORITY
WASTEWATER RATE
CALCULATION REPORT**

DATE SEPTEMBER 2024'

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INTRODUCTION

Wastewater collection and treatment is an essential public service provided to Community residents to protect their health and enhance their quality of life by protecting the environment in which they live. Over many years the Community has invested in the essential infrastructure and services necessary to collect, transport, and ensure treatment of the sanitary wastewater from homes and businesses located within the Community.

The construction and maintenance of this infrastructure is one of the most costly investments residents of the Community 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 or more.

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4 **SUPPORTING DATA INDEX**

5 BACKGROUND / STARTING INFORMATION

6 CURRENT RATE CHARGES & NUMBER OF CUSTOMERS

BACKGROUND / STARTING INFORMATION

Name of Community :	GUN LAKE AREA SEWER AUTHORITY
PHYSICAL ADDRESS	12588 MARSH RD
MAILING?	SHELBYVILLE, MI
ZIP CODE	49344
OFFICE PHONE NUMBER	269-672-5588
Population Served :	7500
COUNTY	BARRY
BUDGET FOR FISCAL YEARS <i>STARTING</i>	2024
PRIMARY WASTEWATER COLLECTION TYPE	GRAVITY AND LIFT STATIONS
PRIMARY WASTEWATER TREATMENT TYPE	
MAJOR WASTEWATER SYSTEM IMPROVEMENTS COMPLETED LAST 10 YRS	
MAJOR SYSTEM IMPROVEMENT PLANS FOR NEXT 10 YRS	
<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	Jan 1st
Year of Last Rate Increase	
Is there an automatic annual COLA adjustment on the rate charges?	
List the names of the different Entities Served OR RATE CLASSES - Originating Entity - RATE CLASS 1	GUN LAKE AREA SEWER AUTHORITY

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

GUN LAKE AREA SEWER AUTHORITY				
CURRENT RATE CHARGES & NUMBER OF CUSTOMERS				
Customers Are Invoice QUARTERLY PER				
CURRENT CHARGES RATE CLASS 1				
GUN LAKE AREA SEWER AUTHORITY				
TYPE OF UNITS INVOICED	1,000 GALLONS	Flat Rate Based On REU's		
COST PER 1,000 GAL.	\$0.00			
INVOICES PER YEAR	4			
METER SIZE IN INCHES	CURRENT "BASE RATE" CHARGE \$	NUMBER OF METERS / REU'S	INVOICES PER YEAR	ANNUAL INCOME
1REU	\$99.00	3203	4	\$1,268,388
TOTALS		3203		\$1,268,388
NAME OF PERSON PROVIDING # OF METERS COUNT				
WAS A REPORT USED TO GENERATE THIS DATA?				
WAS REPORT COPIED INTO THIS FILE?				

Current Rate Charges

Currently customers are charged based on two factors
Consumption Charge, Which is based on gallons of water that goes through the customer's water meter.

A "Base Rate" or "RTS" charge based on the size of the customers water meter, which is listed in inches. Customers are invoiced on a quarterly basis. The number of meters listed above does NOT include irrigation meters which are not invoiced a "Base Rate" charge.

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7 **ANNUAL BUDGET / EXPENSES INDEX**

8 CURRENT BANK BALANCES / AVAILABLE CASH

9 CURRENT REVENUE BASED ON CURRENT RATE CHARGES

10 OPERATING EXPENSES

11 NON-SALES & OTHER REVENUE

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

PRIOR YEAR ACTUALS EXPENSES (COMPARISON PURPOSES ONLY)			ACCT #	GUN LAKE AREA SEWER AUTHORITY	PROPOSED BUDGET FOR FISCAL YEAR	YEAR 2	YEAR 3	YEAR 4	YEAR 5
2019/2020 ACTUAL	2020/2021 ACTUAL	2021/2022 ACTUAL		ANNUAL PERCENT INCREASE	PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	PROJECTED BUDGET	
				OPERATING EXPENSES	2024	2025	2026	2027	2028
				Bond Payment -See loan page	\$0	\$0	\$0	\$0	\$0
				Wages	\$473,528	\$487,734	\$502,366	\$517,437	\$532,960
				Overtime Wages	\$17,000	\$17,510	\$18,035	\$18,576	\$19,134
				Payroll Taxes	\$36,200	\$37,286	\$38,405	\$39,557	\$40,743
				Health Insurance	\$64,000	\$65,920	\$67,898	\$69,935	\$72,033
				Life Insurance	\$4,600	\$4,738	\$4,880	\$5,027	\$5,177
				Retirement-(401a)	\$27,000	\$27,810	\$28,644	\$29,504	\$30,389
				Insurance & Workers Comp	\$50,000	\$51,500	\$53,045	\$54,636	\$56,275
				Postage & Shipping	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
				Office Supplies	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814
				Computer Expenses	\$8,000	\$8,240	\$8,487	\$8,742	\$9,004
				Lab Testing	\$16,500	\$16,995	\$17,505	\$18,030	\$18,571
				Water Lab Supplies	\$17,500	\$18,025	\$18,566	\$19,123	\$19,696
				Uniforms	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814
				Lab Supplies	\$17,000	\$17,510	\$18,035	\$18,576	\$19,134
				Collection System - See equipment replacement	\$80,000	\$82,400	\$84,872	\$87,418	\$90,041
				Plant Operations	\$80,000	\$82,400	\$84,872	\$87,418	\$90,041
				Ferric Chloride	\$10,500	\$10,815	\$11,139	\$11,474	\$11,818
				Bioxide	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138
				Biosolids Disposal	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531
				Grinders	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531
				Tools	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255
				Trucks- See equipment replacement	\$0	\$0	\$0	\$0	\$0
				Tractor & Trailer- See equipment replacement	\$0	\$0	\$0	\$0	\$0
				Audit	\$6,900	\$7,107	\$7,320	\$7,540	\$7,766
				Legal Services	\$55,000	\$56,650	\$58,350	\$60,100	\$61,903
				Phones & Internet	\$7,000	\$7,210	\$7,426	\$7,649	\$7,879
				Gasoline	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
				Diesel	\$12,000	\$12,360	\$12,731	\$13,113	\$13,506
				Electricity	\$196,000	\$201,880	\$207,936	\$214,174	\$220,600
				Gas	\$14,000	\$14,420	\$14,853	\$15,298	\$15,757
				Garbage Service	\$1,400	\$1,442	\$1,485	\$1,530	\$1,576
				Contracted Services	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883
				Education & Memberships	\$9,700	\$9,991	\$10,291	\$10,599	\$10,917
				Miscellaneous	\$4,000	\$4,120	\$4,244	\$4,371	\$4,502
						\$0	\$0	\$0	\$0
						\$0	\$0	\$0	\$0
						\$0	\$0	\$0	\$0
\$0	\$0	\$0		TOTAL	\$1,392,828	\$1,434,613	\$1,477,651	\$1,521,981	\$1,567,640

MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

	GUN LAKE AREA SEWER AUTHORITY				YEAR 2	YEAR 3	YEAR 4	YEAR 5	
ACCOUNT #	NON-SALES & OTHER REVENUE	2019/2020 ACTUAL	2020/2021 ACTUAL	2021/2022 ACTUAL	2024	2025	2026	2027	2028
	Late Fees:				\$16,000				
	TOTAL INCOME (NON SALES)	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0
	AVERAGE NON SALES INCOME		\$0	\$0	\$4,000	\$4,000	\$4,000	\$4,000	\$0
	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				100%	100%	100%	100%	100%
	ANNUAL DOLLARS APPLIED TOWARDS FIXED BUDGET - BASE RATE - RTS				\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	TOTAL ANNUAL RESIDENTIAL EQUIVALENT UNITS "REU'S"				12,812	12,812	12,812	12,812	12,812
	REDUCTION PER REU PER BILLING PERIOD				\$0.39	\$0.39	\$0.39	\$0.39	\$0.39
	ANNUAL DOLLARS APPLIED TOWARDS VARIABLE BUDGET - PER UNIT				\$0	\$0	\$0	\$0	\$0
	ANNUAL UNITS OF WATER OR SEWER INVOICED				0	0	0	0	0
	REDUCTION PER UNIT OF WATER OR SEWER				#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
THIS REVENUE WILL BE RE-APPLIED BACK TO THE WATER BUDGET WHICH WILL LOWER THE RATES.									

12 ***LOAN / DEBT INFORMATION INDEX***

13 DEBT SCHEDULE / AMORTIZATION SCHEDULE PRINCIPAL & INTEREST

14 CAPITAL IMPROVEMENT & EQUIPMENT REPLACEMENT INDEX

15 EQUIPMENT REPLACEMENT SHORT LIVED ASSETS

16 EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHEET

17 CAPITAL IMPROVEMENT PROJECTS SUMMARY

18 CAPITAL IMPROVEMENT PROJECTS - RUNNING BALANCE SHEET

**GUN LAKE AREA SEWER AUTHORITY
EQUIPMENT REPLACEMENT SHORT LIVED ASSETS**

2024

SHORT LIVED ASSETS SOMEWHERE BETWEEN 0-15 OR 20 YEARS

FIXED ASSET INVENTORY	ASSET REPLACEMENT SCHEDULE							
	EQUIPMENT LIST / MAINTENANCE ACTIVITY	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
Standby generator at lift station #1	2004	20	20	2024	0	\$60,000	0%	100%
Standby generator at lift station #2	2004	20	20	2024	0	\$60,000	0%	100%
Standby generator at lift station #3	2004	20	20	2024	0	\$60,000	0%	100%
Standby generator at lift station #4	2005	20	19	2025	1	\$60,000	5%	95%
Standby generator at lift station #5	2005	20	19	2025	1	\$60,000	5%	95%
Standby generator at lift station #6	2005	20	19	2025	1	\$60,000	5%	95%
Standby generator at lift station #7	2006	20	18	2026	2	\$60,000	10%	90%
Standby generator at lift station #8	2006	20	18	2026	2	\$60,000	10%	90%
Standby generator at lift station #9	2006	20	18	2026	2	\$60,000	10%	90%
Standby generator at lift station #10	2007	20	17	2027	3	\$60,000	15%	85%
Standby generator at lift station #11	2007	20	17	2027	3	\$60,000	15%	85%
Standby generator at lift station #12	2007	20	17	2027	3	\$60,000	15%	85%
Standby generator at lift station #13	2008	20	16	2028	4	\$60,000	20%	80%
Standby generator at lift station #14	2008	20	16	2028	4	\$60,000	20%	80%
Standby generator at lift station #15	2008	20	16	2028	4	\$60,000	20%	80%
Standby generator at lift station #16	2009	20	15	2029	5	\$60,000	25%	75%
Standby generator at lift station #17	2009	20	15	2029	5	\$60,000	25%	75%
Standby generator at lift station #18	2009	20	15	2029	5	\$60,000	25%	75%
Tractor	2024	20	0	2044	20	\$100,000	100%	0%
trailer	2024	20	0	2044	20	\$50,000	100%	0%
15 sewer grinder station pump replacements	2010	15	14	2025	1	\$37,000	7%	93%
15 sewer grinder station pump replacements	2011	15	13	2026	2	\$37,000	13%	87%
15 sewer grinder station pump replacements	2012	15	12	2027	3	\$37,000	20%	80%
15 sewer grinder station pump replacements	2013	15	11	2028	4	\$37,000	27%	73%
15 sewer grinder station pump replacements	2014	15	10	2029	5	\$37,000	33%	67%
#1 Raw screw pump	2018	20	6	2038	14	\$100,000	70%	30%
#2 Raw screw pump	2022	20	2	2042	18	\$100,000	90%	10%
#1 Turbo Blower	2020	15	4	2035	11	\$68,000	73%	27%
#2 Turbo Blower	2023	15	1	2038	14	\$68,000	93%	7%
Raw vacum sampler station	2020	10	4	2030	6	\$8,000	60%	40%
Primary vacum sampler station	2022	10	2	2032	8	\$8,000	80%	20%
Final vacum sampler station	2022	10	2	2032	8	\$8,000	80%	20%

**GUN LAKE AREA SEWER AUTHORITY
EQUIPMENT REPLACEMENT SHORT LIVED ASSETS**

2024

SHORT LIVED ASSETS SOMEWHERE BETWEEN 0-15 OR 20 YEARS

FIXED ASSET INVENTORY	ASSET REPLACEMENT SCHEDULE								
	EQUIPMENT LIST / MAINTENANCE ACTIVITY	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	PERCENT CONSUMED
Grit Room									
2 explosion proof forced air heaters	2019	15	5	2034	10	\$22,000	67%	33%	
4 small process motors	2019	10	5	2029	5	\$4,000	50%	50%	
Gorman Rupp pump	2019	20	5	2039	15	\$30,000	75%	25%	
Septic receiving sytem repairs	2019	5	5	2024	0	\$2,000	0%	100%	
2 effluent well pump replacement	2023	5	1	2028	4	\$4,000	80%	20%	
2 effluent well pump replacement	2022	5	2	2027	3	\$4,000	60%	40%	
2 effluent well pump replacement	2021	5	3	2026	2	\$4,000	40%	60%	
2 effluent well pump replacement	2020	5	4	2025	1	\$4,000	20%	80%	
2 effluent well pump replacement	2019	5	5	2024	0	\$4,000	0%	100%	
Effluent 8 inch mag meter	2015	20	9	2035	11	\$8,000	55%	45%	
Vac Truck	2009	20	15	2029	5	\$150,000	25%	75%	
Portable trash pumps 2	1982	50	42	2032	8	\$40,000	16%	84%	
0 turn lawne mower	2022	15	2	2037	13	\$8,000	87%	13%	
Hot water steam boiler	2022	20	2	2042	18	\$20,000	90%	10%	
#1 final pump. T-4 Gorman Rupp	2020	20	4	2040	16	\$20,000	80%	20%	
#2 final pump. T-4 Gorman Rupp	2020	20	4	2040	16	\$20,000	80%	20%	
2 15 hp VFD's for final pumps	2020	10	4	2030	6	\$8,000	60%	40%	
#1 non potable pump. 15hp	2015	20	9	2035	11	\$10,000	55%	45%	
#2 non potable pump. 15hp	2015	20	9	2035	11	\$10,000	55%	45%	
Commercial dehumidifier. Basement	2004	20	20	2024	0	\$12,000	0%	100%	
2, 4 ich mag meters. Basement	2015	20	9	2035	11	\$6,000	55%	45%	
#1 ferric chloride tank replacement	1985	45	39	2030	6	\$30,000	13%	87%	
#2 ferric chloride tank replacement	1990	45	34	2035	11	\$30,000	24%	76%	
Lab Equipment									
Dry oven for lab	1994	30	30	2024	0	\$5,000	0%	100%	
BOD incubator	2023	15	1	2038	14	\$8,000	93%	7%	
Muffle Furnace	2023	15	1	2038	14	\$6,000	93%	7%	
Lab sample refrigerator	2023	15	1	2038	14	\$5,000	93%	7%	
							\$2,249,000	35%	

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHEET				
			COST OF LIVING INCREASE	3.00%
			CURRENT RESERVE BALANCE APPLIED TO THIS ACCOUNT - INCLUDES RRI BALANCE	\$500,000
			AVG. INTEREST RATE IN SAVINGS	0.10%
ANNUAL COLA ADJUSTMENT AS ADOPTED BY COUNCIL			0.00%	
Annual Funding Applied to Budget / Rates			\$175,000	
USDA RURAL DEVELOPMENT "RRI" ANNUAL RESERVE - ALL LOANS			\$0	
USDA R.D. BOND RESERVE LOAN 1 BECOMES AVAILABLE FOR RRI IN YEAR OF				
USDA R.D. LOAN 1 ANNUAL BOND RESERVE(S)				
USDA R.D. BOND RESERVE LOAN 2 BECOMES AVAILABLE FOR RRI IN YEAR OF				
USDA R.D. LOAN 2 ANNUAL BOND RESERVE(S)				
YEAR	PURPOSE	ANNUAL REPLACEMENT EXPENDITURES WITH C.O.L.	ANNUAL FUNDING WITH COLA	RUNNING BALANCE
2024	SEE EQUIPMENT LIST FOR DETAILS OF ANTICIPATED PURCHASES	\$203,000	#####	\$472,675
2025		\$227,630	\$175,000	\$420,518
2026		\$234,260	\$175,000	\$361,678
2027		\$240,890	\$175,000	\$296,150
2028		\$247,520	\$175,000	\$223,926
2029		\$433,550	\$175,000	(\$34,400)
2030		\$59,000	\$175,000	\$81,566
2031		\$4,840	\$175,000	\$251,807
2032		\$74,400	\$175,000	\$352,659
2033		\$5,080	\$175,000	\$522,932
2034		\$36,400	\$175,000	\$662,055
2035		\$180,880	\$175,000	\$656,837
2036		\$5,440	\$175,000	\$827,053
2037		\$16,680	\$175,000	\$986,200
2038		\$271,220	\$175,000	\$890,967
2039		\$58,000	\$175,000	\$1,008,858
2040		\$143,560	\$175,000	\$1,041,306
2041		\$61,910	\$175,000	\$1,155,438
2042		\$272,580	\$175,000	\$1,059,013
2043		\$64,370	\$175,000	\$1,170,702
2044		\$616,000	\$175,000	\$730,873
				\$905,000

GUN LAKE AREA SEWER AUTHORITY	2024	
CAPITAL IMPROVEMENT PROJECTS SUMMARY		PERCENT DOWN PAYMENT
CAPITAL IMPROVEMENT IDEAS WERE GENERATED FROM		NOTES

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.

ENTER ITEMS ON THIS PAGE FIRST - THEN SEE INDIVIDUAL PAGES FOR ENTERING DETAILS ON EACH PROJECT -

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
Cleaning of sludge ponds	\$80,000	\$50,000	\$30,000	2025	yes	\$50,000
Cleaning of sludge ponds	\$80,000	\$50,000	\$30,000	2026	yes	\$25,000
Decommissioning sludge ponds	\$100,000	\$50,000	\$50,000	2028	yes	\$12,500
Decommissioning sludge ponds	\$100,000	\$50,000	\$50,000	2030	yes	\$8,333
New control panel and SCADA	\$150,000	\$50,000	\$100,000	2025	Yes	\$50,000
Rehab of #1 clarifer	\$150,000	\$50,000	\$100,000	2027	Yes	\$16,667
Rehab of #2 clarifer	\$150,000	\$50,000	\$100,000	2028	Yes	\$12,500
Tank #1 fine bubble aeration upgrade	\$150,000	\$50,000	\$100,000	2030	Yes	\$8,333
Tank #2 fine bubble aeration upgrade	\$150,000	\$50,000	\$100,000	2030	Yes	\$8,333
Tank #3 fine bubble aeration upgrade	\$150,000	\$50,000	\$100,000	2032	Yes	\$6,250
Tank #4 fine bubble aeration upgrade	\$150,000	\$50,000	\$100,000	2032	Yes	\$6,250
Rehab or replace ferric chloride tank #1	\$50,000	\$50,000	\$0	2030	Yes	\$8,333
Rehab or replace ferric chloride tank #1	\$50,000	\$50,000	\$0	2032	Yes	\$6,250
			\$0			\$0
			\$0			\$0
			\$0			\$0
	\$1,510,000	\$650,000	\$860,000			\$218,750

CAPITAL IMPROVEMENT RUNNING BALANCE PROJECTIONS & ANNUAL FUNDING				
ANNUAL COST OF LIVING INCREASE TO PROJECTS			3.00%	
CASH RESERVE BALANCE APPLIED TO CAPITAL IMPROVEMENTS			<u>\$50,000</u>	
AVG. INTEREST RATE IN SAVINGS			0.00%	
IF AN ANNUAL COLA RATE ADJUSTMENT PERCENT OF			0.00%	
THE AVERAGE ANNUAL FUNDING DOES NOT REFLECT ANY EXTRA REVENUE GENERATED BY FUTURE ANNUAL RATE INCREASES. FOR A TRUE RUNNING BALANCE OF THE OVERALL HEALTH OF THE WATER SYSTEM SEE THE 10 YEAR PROJECTIONS PAGE.				
YEAR	PROJECT	ANNUAL EXPENDITURES	AVERAGE ANNUAL FUNDING AMOUNT IN RATE BUDGET	RUNNING BALANCE
2024		\$0	<u>\$70,000</u>	\$120,000
2025		\$103,000	\$70,000	\$87,000
2026		\$53,000	\$70,000	\$104,000
2027		\$54,500	\$70,000	\$119,500
2028		\$112,000	\$70,000	\$77,500
2029		\$0	\$70,000	\$147,500
2030		\$236,000	\$70,000	(\$18,500)
2031		\$0	\$70,000	\$51,500
2032		\$186,000	\$70,000	(\$64,500)
2033		\$0	\$70,000	\$5,500
2034		\$0	\$70,000	\$75,500
2035		\$0	\$70,000	\$145,500
2036		\$0	\$70,000	\$215,500
2037		\$0	\$70,000	\$285,500
2038		\$0	\$70,000	\$355,500
2039		\$0	\$70,000	\$425,500
2040		\$0	\$70,000	\$495,500

GUN LAKE AREA SEWER AUTHORITY

WASTEWATER RATE

CALCULATION REPORT

PAGE #

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MICHIGAN RURAL WATER ASSOCIATION RATE EVALUATION PROGRAM

FINAL ANALYSIS RATE CALCULATION - CURRENT FISCAL YEAR		2024				RTS CHARGE	
GUN LAKE AREA SEWER AUTHORITY		ANNUAL BUDGET	PERCENT FIXED EXPENSES	ASSIGNED AS FIXED EXPENSES	COST PER METER EQUIVALENT		
OPERATING EXPENSES		\$1,392,828	100%	\$1,392,828	\$108.71		
OPERATION & MAINTENANCE EXPENSES		\$1,392,828		\$1,392,828	\$108.71		
DEBT - PRINCIPAL & INTEREST ANNUAL PAYMENTS							
		\$0	100.00%	\$0	\$0.00		
2018 Bond		\$159,000	100%	\$159,000	\$12.41		
NEW ANTICIPATED CAPITAL LOANS							
		\$0	100%	\$0	\$0.00		
ANNUAL DEBT PAYMENTS PRINCIPAL & INTEREST		\$159,000		\$159,000	\$12.41		
ANNUAL O & M + DEBT		\$1,551,828		\$1,551,828	\$121.12		
				100%			
NON SALES INCOME		\$5,000	100%	\$5,000	\$0.39		
REVENUE COLLECTED THROUGH RATES		\$1,546,828		\$1,546,828			
CALCULATED RATE O & M + DEBT		METER EQUIVALENT		QUARTER		\$120.73	
				CURRENT RATE		\$99.00	
RESERVES							
EQUIPMENT REPLACEMENT AVERAGE ANNUAL BUDGETED AMOUNT		\$175,000	100%	\$175,000	\$13.66		
EQUIPMENT REPLACEMENT & RESERVE REQUIREMENTS		\$175,000		\$175,000	\$13.66		
CAPITAL IMPROVEMENT AVERAGE ANNUAL BUDGETED AMOUNT		\$70,000	100%	\$70,000	\$5.46		
CAPITAL + EQUIPMENT & RRI RESERVES		\$245,000		\$245,000	\$19.12		
ADOPTED BUDGET		\$1,796,828		\$1,796,828			
			100.00%	100%			
REVENUE COLLECTED CALCULATED RATES		\$1,791,828		\$1,791,828			
REVENUE COLLECTED WITH CURRENT RATE CHARGES		\$1,268,388					
CALCULATED RATE PER METER EQUIVALENT				PER QUARTER		\$139.86	
ANNUAL METER EQUIVALENTS / REU'S COUNT 12,812				CURRENT RATES		\$99.00	
ANTICIPATED EQUIVALENT GALLONS / UNITS 0				PERCENT INCREASE		41.27%	
INVOICES PER YEAR 4				INCREASE OF		\$40.86	
TOTAL NUMBER OF CUSTOMERS / METERS 3,203				0			
ANTICIPATED UNITS INVOICED 0							
GALLONS USED 4,000							
AMOUNT OF BILL \$139.86							
PERCENT INCREASE 41%				EVERY MILLION GALLONS GENERATES REVENUE OF			
NOTES		PERCENT RESERVE		13.6%			

2024

SUMMARY OF NEW CHARGES "ALL ENTITIES" YEAR

GUN LAKE AREA SEWER AUTHORITY				
	CURRENT	NEW		DIFFERENCE
PER 1,000 GAL.	\$0.00	\$0		\$0.00
2024				
2024	CURRENT	NEW		DIFFERENCE PER QUARTER
METER SIZE IN INCHES	READY TO SERVE PER QUARTER	READY TO SERVE PER QUARTER	METER EQUIVALENT FACTOR	
1REU	\$99.00	\$139.86	1.00	\$40.86

These are the rates calculated for each meter size. Also for the cost per unit of water sold for each entity.

THIS RATE CALCULATION USES THE METER EQUIVALENT RATIO IN THE YELLOW HIGHLIGHTED COLUMN.

The goal of the meter equivalent ratio is to distribute the cost of operating the system in a equitable manner.

TYPICAL BILL COMPARISON USING NEW RATES					
GUN LAKE					
AREA SEWER					
<u>CURRENT</u>		<u>NEW / CALCULATED RATES</u>			
RATES					
RTS		\$139.86			
COST PER UNIT		\$0			
		QUARTERLY			
METER SIZE IN INCHES	BASE RATE CHARGE	NEW BILL	OLD BILL	CHANGE IN BILL	PERCENT INCREASE
1REU	\$139.86	\$139.86	\$99.00	\$40.86	41.3%

EXPENSES	BUDGET FOR FISCAL YEARS STARTING					2029	2030	2031	2032	2033	
	2024	2025	2026	2027	2028						
PERCENT INCREASE (COST OF LIVING ETC) ON BUDGET											
USE THIS ROW TO CUSTOMIZE THE PERCENT INCREASE FOR EXPENSES ON ROWS 109 - 113 WHICH PULL FROM THE FINAL ANALYSIS PAGE	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
INDIVIDUAL FOR DETAILS	OPERATING EXPENSES - % INCREASE					3.0%	3.0%	3.0%	3.0%	3.0%	
	OPERATING EXPENSES	\$1,392,828	\$1,434,613	\$1,477,651	\$1,521,981	\$1,567,640	\$1,614,669	\$1,663,110	\$1,713,003	\$1,764,393	\$1,817,325
	TOTAL O&M EXPENSES	\$1,392,828	\$1,434,613	\$1,477,651	\$1,521,981	\$1,567,640	\$1,614,669	\$1,663,110	\$1,713,003	\$1,764,393	\$1,817,325
	DEBT EXPENSES - PRINCIPAL & INTEREST		2025	2026	2027	2028	2029	2030	2031	2032	2033
		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2018 Bond	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000
	<u>NEW ANTICIPATED CAPITAL LOANS</u>										
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	ANNUAL DEBT PAYMENTS PRINCIPAL & INTEREST	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000
	NEW BUDGET LINE ITEMS STARTING YEAR 2		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	NEW BUDGET LINE ITEMS STARTING YEAR 2		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	MINIMUM REQUIRED EXPENSES / BUDGET	\$1,551,828	\$1,593,613	\$1,636,651	\$1,680,981	\$1,726,640	\$1,773,669	\$1,822,110	\$1,872,003	\$1,923,393	\$1,976,325
	GAINS / LOSSES <u>BEFORE</u> EQUIPMENT & CAPITAL EXPENSES	\$245,000	\$203,215	\$160,177	\$115,847	\$70,188	\$23,159	(\$25,282)	(\$75,175)	(\$126,565)	(\$179,497)
	EQUIPMENT REPLACEMENT ANTICIPATED ACTUAL EXPENDITURES	\$203,000	\$227,630	\$234,260	\$240,890	\$247,520	\$433,550	\$59,000	\$4,840	\$74,400	\$5,080
	TOTAL EQUIPMENT REPLACEMENT <u>ANTICIPATED EXPENDITURES</u>	\$203,000	\$227,630	\$234,260	\$240,890	\$247,520	\$433,550	\$59,000	\$4,840	\$74,400	\$5,080
	CAPITAL IMPROVEMENT <u>ANTICIPATED EXPENDITURES</u>	\$0	\$103,000	\$53,000	\$54,500	\$112,000	\$0	\$236,000	\$0	\$186,000	\$0
	TOTAL COMBINED EQUIPMENT & CAPITAL <u>ANTICIPATED EXPENDITURES</u>	\$203,000	\$330,630	\$287,260	\$295,390	\$359,520	\$433,550	\$295,000	\$4,840	\$260,400	\$5,080
	TOTAL ANTICIPATED ACTUAL CASH ANNUAL EXPENDITURES - INCLUDING CAPITAL & EQUIPMENT	\$1,754,828	\$1,924,243	\$1,923,911	\$1,976,371	\$2,086,160	\$2,207,219	\$2,117,110	\$1,876,843	\$2,183,793	\$1,981,405
	GAINS / LOSS FOR FISCAL YEAR - <u>AFTER</u> EQUIPMENT & CAPITAL EXPENDITURES	\$42,000	(\$127,415)	(\$127,083)	(\$179,543)	(\$289,332)	(\$410,391)	(\$320,282)	(\$80,015)	(\$386,965)	(\$184,577)
	<u>STARTING</u> CASH AVAILABLE / BANK BALANCE	\$1,544,975									
	<u>ENDING</u> CASH AVAILABLE / BANK BALANCE	\$1,586,975	\$1,459,560	\$1,332,477	\$1,152,934	\$863,602	\$453,211	\$132,929	\$52,914	(\$334,050)	(\$518,627)
	PERCENT OF BUDGET RELATED TO DEBT	10%	10%	10%	9%	9%	9%	9%	8%	8%	8%

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

GUN LAKE AREA SEWER AUTHORITY		2024
	GUN LAKE AREA SEWER AUTHORITY	REVENUE
	New Cost per Unit of Water Sold	NEW RATES
\$ PER 1,000 GAL.	\$0	
UNITS Sold	0	
Income	\$0	\$0
PERCENT OF USAGE	#DIV/0!	
PERCENT REVENUE	#DIV/0!	
NON SALES INCOME APPLIED TO VARIABLE BUDGET		\$0
TOTAL ANTICIPATED REVENUE PER UNIT SALES		\$0
METER SIZE	NEW BASE RATE PER QUARTER	
1REU	\$139.855	
NO. CUSTOMERS	3,203	
INVOICES PER YEAR	4	
ANNUAL INVOICES	12,812	
INCOME	\$1,791,828.00	\$1,791,828
FIXED INCOME PER ENTITY	\$1,791,828.00	\$1,791,828
VARIABLE INCOME	\$0.00	\$0
FIXED + VARIABLE INCOME PER ENTITY	\$1,791,828.00	\$1,791,828
NON SALES INCOME APPLIED TO FIXED BUDGET		\$5,000
BASE RATE / RTS + NONE SALES INCOME		\$1,796,828
VARIABLE INCOME		\$0
NON SALES INCOME APPLIED TO VARIABLE BUDGET		\$0
VARIABLE REVENUE + NON-SALES INCOME		\$0
TOTAL COMBINED CUSTOMER INCOME		\$1,796,828
Budget Goal		\$1,796,828
Difference		\$0
CURRENT REVENUE BASED ON CURRENT RATE CHARGES		\$1,284,388
ADDITIONAL REVENUE COLLECTED WITH NEW RATE CHARGES		\$512,440