

1	Cover sheet
2	Index
3	Introduction to Sewer Rates
4	Current Rate Structure Comments
5	Overall Conclusion
6	Executive Summary
7	Starting Sheet
8	Current Water Rates
9	Number of Customers - REU's
10	Current Income
11	Non Sales Income
12	Labor & Benefits
13	Operational Expenses
14	Individual Bond List
15	Bonds - Loans
16	Cash Flow Statement
17	Reserve Funding Current Balance
18	FINAL ANALYSIS
19	Rates Summary
20	Confirmation of Income
21	Replacement & Capital Written Ideas
22	Asset Replacement / Equipment Example page
23	Asset Replacement Rehab 1
24	Asset Replacement Rehab 1 - print page
25	Capital Improvement Program
26	Capital Improvement Projects - Items 1
27	Capital Improvement Projects - Items 2
28	Capital Improvement Projects - Items 3
29	Capital Improvement Projects - Items 4
30	Capital Improvement Projects - Items 5
31	Capital Improvement Projects - Items 6
32	Capital Improvement Projects - Items 7
33	Capital Improvement Projects - Items 8
34	Capital Improvement Projects - Items 9
35	Capital Improvement Projects - Items 10
36	Capital Improvement Projects - Items 11
37	Lagoon Cleaning Reserve Fund
38	Projected C.O.L.
39	Step Increase Fixed Expenses / Base Rate - 2 year step for rate increase

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 of more.

**Current Rate Structure
Missaukee Drain #2**

The current rate structure for the Missaukee Drain #2 Sewer System is reasonable but could use a few minor changes to recover the cost of operating the system in a more equitable manner.

Currently the system charges a fixed cost per REU's sewer used.

The debt is collected through the base rate with all customers paying the same rate on a quarterly basis.

Currently the system charges a base rate or Ready to Serve charge which is invoiced every quarter (which includes the debt). The base rate is charged to everyone depending on the system's REU table.

Larger sewer users take up capacity of the system. The system has a limited capacity (gallons) therefore if one large customer takes up the capacity of 10 residential homes they should pay a base rate equivalent to the 10 residential homes. Larger volume users also drive the size of certain components of the sewer system. For instance having several large buildings that house factories or schools will require larger sewer mains and a larger lift station for these larger buildings.

Ultimately our goal is to collect the money needed to maintain the sewer system in the most equitable manner possible. Insuring that everyone pays their fair share of the cost.

Overall Conclusion

Missaukee Drain #2

At first glance looking at the overall financial stability of the sewer system it appears to be losing revenue. The "Cash Flow Statement" page indicates this last year's income expenses exceeded last year's actual income by **(\$46,602)**.

The overall revenue which takes into account fees from new customers and miscellaneous income shows a loss last year of **(\$46,602)**. Although revenue from tap fees and other miscellaneous income should be considered a bonus as this income changes every year.

Looking again at the loss of **(\$46,602)**, what the revenue doesn't include is any reserve funding for major equipment maintenance and replacement. Things like purchasing a new generator, or replacing a pump. Using the equipment replacement / asset management program established by the EGLE indicated that the system should be putting \$156,500 aside on an annual basis to pay for major equipment maintenance and replacement for items that occur on an irregular basis.

Basically the system is NOT generating enough revenue to cover every day basic expenses NOT enough to pay for the irregularly occurring major maintenance items and replacement of existing equipment necessary to providing safe sewage treatment for the community.

AWWA standards recommend 2 to 12 month unrestrictive reserve for emergency purposes. A target of a 6 month reserve for the system would be approximately \$250,000 to \$300,000.

The system needs to know exactly how much money will be needed over the next 20 years for these major maintenance expenses / equipment replacement and insure they have money in the bank for these expenditures. Keeping in mind that too much money is almost as bad as not having enough

Putting money aside should not be guess work, but rather an exact calculation. For instance if the past maintenance history of a pump indicated that we have to replace it in five years and the pump cost \$25,000 we should be putting aside \$5,000 each year in order to have the \$25,000 needed in five years to replace the pump. This money would come out of the water or sewer saving accounts. Here is the KEY, the rates need to be high enough to generate enough revenue to replace the \$25,000 spent on this pump. Otherwise the system will eventually deplete its sewer reserve accounts.

Missaukee Drain #2				
CONCLUSION OF ANALYSIS				
CURRENT "BASE RATE" CHARGE PER QUARTER				
METER SIZE - INCHES	CURRENT RATES		CALCULATED RATES	DIFFERENCE
REU	\$161.63		\$243.76	\$82.13

The above rates are based on an input budget of \$757,139
The above rates are based on invoicing the following gallons of sewer 0
The above rates are based on the following number of customers 776.52
The above rates are based on the following number of Residential Equivalent Units (REU's) 3,106

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 wastewater discharge for your customers now and in the future.

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

BACKGROUND INFORMATION STARTING SHEET

Please be sure to review the results of this rate evaluation with an attorney

Name of Community :	Missaukee Drain #2
Population Served :	900
BUDGET USED FOR YEAR OF	2026
<u>Current Rate Structure</u>	
Are bills based on 1,000 gallons units or 100 cubic feet units?	1,000
Number of Residential Customer Invoices per Year	4
What are the dates of the Fiscal Year	Tuesday, July 18, 1905
Year of Last Rate Increase	2025
<i>This rate evaluation was completed using the following information</i>	
Reliability Study / General Plan	N/A
Capital Improvement Plan	Yes
Water Tower Inspection Report	N/A
Well Inspection Report	N/A
System Evaluations (MDEQ etc)	Yes
List the names of the different Entities Served - Originating Entity	Missaukee Drain #2

Missaukee Drain #2				
CURRENT RATE CHARGES				
Customers Are Invoice QUARTERLY PER				
RATE CLASS 1				
Missaukee Drain #2				
TYPE OF WATER UNITS	1,000 GALLONS	Notes: Utility has REU table		
COST PER WATER UNIT	\$0.00			
INVOICES PER YEAR	4			
METER SIZE - INCHES	CURRENT "BASE RATE" CHARGE	NUMBER OF METERS	INVOICE FREQUENCY	ANNUAL INCOME
REU	\$161.63	776.52	4	\$502,036
TOTALS		776.52		\$502,036

Current Rate Charges

Currently customers are charged based on two factors

A "Base Rate" charge based of \$ 161.63 for a REU, this fee increases based on the REU schedule. Customers are invoiced quarterly.

2026	RATE CLASS 1					
	Missaukee Drain #2					
METER SIZE - INCHES	NUMBER OF METERS	CUSTOMERS ACTUAL	SELECTED METER EQUIVALENT	CALCULATED METER EQUIVALENT	EQUIVALENT REU'S PER BILLING CYCLE	ANNUAL EQUIVALENT REU'S (UNITS)
REU	776.52	776.52	1.00	1.00	777	3,106
TOTAL	776.52	776.52			777	
TOTAL <u>EQUIVALENT</u> ANNUAL REU'S						3,106
PERCENT REDUCTION						0.00%
REU REDUCTION PER BILLING CYCLE						0.0
ANNUAL <u>EQUIVALENT</u> REU'S USED FOR RATE EVALUATION						3,106

NOTES: REU's were provided by system.

TOTAL COMBINED <u>CURRENT</u> INCOME					WATER UNITS =		
FISCAL YEAR		2025			INVOICES PER YEAR =		
					Missaukee Drain #2		
CURRENT METER / BASE RATE INCOME							
					Missaukee Drain #2		
METER SIZE - INCHES	CURRENT RATES	NUMBER OF METERS	INVOICE FREQUENCY	ANNUAL INCOME	INCOME	% INCOME	% TOTAL INCOME
REU	\$161.63	776.52	4	502,036	\$502,036	100%	100%
BASE RATE INCOME				\$502,036	\$502,036		100%
CURRENT VOLUME SALES INCOME							
					Missaukee Drain #2		
GALLONS / CUFT SOLD	0				TOTALS		
COST PER UNIT	\$0.00				0		% INCOME
WATER SALES INCOME	\$0				\$0		0%
TOTAL METER SALES INCOME				\$502,036			
TOTAL VOLUME SALES INCOME				\$0			
TOTAL INCOME CUSTOMER SALES				\$502,036	PERCENT OF INCOME		
NON SALES REVENUE ANTICIPATED				\$0	BASE RATE	VOLUME SALES	
TOTAL INCOME ALL SOURCES				\$502,036	100%	0%	
NEW INPUTTED RATE BUDGET				\$757,139			
SCHEDULED PROFIT / LOSS				(\$255,103)			

Missaukee Drain #2			
NON-SALES INCOME			
NON-SALES INCOME	2024	2025	2026
Penalties			\$ 6,500
TOTAL INCOME (NON SALES)	\$ -	\$ -	\$ 6,500
Portion of (Non Sales) Revenue <u>Guaranteed</u> :			\$ -
Percent Applied Towards Fixed Rate RTS Charge - PERCENT applied per REU			50%
ANNUAL DOLLARS APPLIED TOWARDS FIXED BUDGET - BASE RATE - RTS			\$ -
ANNUAL DOLLARS APPLIED TOWARDS VARIABLE BUDGET - PER UNIT			\$ -

LABOR & BENEFITS	PROPOSED BUDGET FOR NEXT FISCAL YEAR	ACTUALS EXPENSES FROM PREVIOUS YEARS (COMPARISON PURPOSES ONLY)	
Missaukee Drain #2	2026		
2026	RATE BUDGET ANNUAL BUDGETED	YEAR OF 2025	YEAR OF 2024
LABOR & BENEFITS			
Salaries & Waages	\$106,080	\$99,840	\$80,000
Overtime	\$25,620	\$23,520	\$0
Sec/Treasurer	\$5,000	\$4,000	\$3,000
Clerk	\$5,500	\$6,000	\$2,000
Adivisory Board	\$3,300	\$3,000	\$2,000
Social Security	\$9,600	\$9,000	\$8,400
Medicare	\$3,000	\$2,700	\$2,500
Pension	\$15,500	\$6,200	\$0
Health Insurance	\$23,000	\$21,000	\$20,000
Worker's Comp	\$6,000	\$4,500	\$4,200
Wage Apprentice	\$0	\$0	\$43,680
LABOR & BENEFITS	\$202,600	\$179,760	\$165,780
SUB-TOTAL EXPENSES	\$202,600	\$179,760	\$165,780
Additional Cost of Inflation Increase	0.00%		
LABOR & BENEFITS	<u>\$202,600</u>		
ARE EMPLOYEES MAKING A LIVABLE WAGE AND RECEIVING INCREASES ANNUALLY?			

OPERATION & MAINTENANCE EXPENSES	PROPOSED BUDGET FOR NEXT FISCAL YEAR	ACTUALS EXPENSES FROM PREVIOUS YEARS (COMPARISON PURPOSES ONLY)	
	2026		
Missaukee Drain #2	RATE BUDGET	YEAR OF	YEAR OF
SYSTEM EXPENSES	ANNUAL BUDGETED	2025	2024
Supplies	\$4,500	\$3,500	\$3,200
Operating Expenses	\$45,000	\$30,000	\$24,000
Professional Fees	\$6,000	\$2,000	\$6,000
Professional Services	\$18,000	\$15,000	\$0
Contracted Services	\$45,000	\$30,000	\$25,000
Lab Analysis and Monitoring	\$24,000	\$15,000	\$12,000
Telephone	\$7,500	\$6,000	\$0
Postage	\$2,000	\$1,000	\$0
Auto Gas	\$10,000	\$7,000	\$4,500
Meetings / Seminars	\$7,500	\$3,000	\$2,000
Discharge Permit	\$4,000	\$8,000	\$8,000
Utilities Treatment	\$25,865	\$45,000	\$37,000
Utilities - PS1	\$1,751	\$0	\$0
Utilities - PS2	\$1,573	\$0	\$0
Utilities - PS3	\$1,359	\$0	\$0
Utilities - PS4	\$1,887	\$0	\$0
Utilities - PS5	\$1,372	\$0	\$0
Utilities - PS6	\$1,380	\$0	\$0
Utilities - Oak Drive	\$755	\$0	\$0
Utilities - Oak Lane	\$755	\$0	\$0
Utilities - Bayberry Lane	\$756	\$0	\$0
Utilities - Peterson Pointe	\$761	\$0	\$0
Repairs and Maintenance	\$55,000	\$40,000	\$38,000
Auto Repairs	\$4,500	\$5,000	\$4,000
Insurance	\$25,000	\$23,000	\$0
Bank Charges	\$200	\$150	\$0
Step Units	\$20,000	\$20,000	\$0
SYSTEM EXPENSES	\$316,414	\$253,650	\$163,700
SUBTOTAL OPERATIONAL EXPENSES	\$316,414	\$253,650	\$163,700
CONTINGENCY	\$0		
SUBTOTAL	\$316,414		
COST OF INFLATION INCREASE	0.00%		
OPERATION & MAINTENANCE EXPENSES	\$316,414		

Operating Expenses are those operation and maintenance (O&M) expenses that occur while providing sewer service. These expenses typically increase annually due to inflation, and increased maintenance costs as systems age. **The expenses listed above do not include Depreciation**
These expenses do not include any interest paid on debt or one time CIP expenditures.

Administrative expenses are those expenses associated with the Township office supplies and Administrative labor.

Missaukee Drain #2	
LOANS, BONDS, INTEREST, ANNUAL PAYMENT	
New Truck 2026	\$15,290
Irrigation Loan	\$48,061
TOTAL ANNUAL PAYMENTS \$	63,351.00
No Tax revenue or special assessment revenue is applied to these payments	
PROPOSED NEW DEBT - TOTAL FUNDED	\$ 80,000
INTEREST RATE	4.60%
LENGTH OF LOAN (YEARS)	5
ANNUAL PAYMENT	\$18,274
TOTAL DEBT - NEW & CURRENT	\$81,625
WHAT YEAR IS LOAN PAID OFF	
IS DEBT LISTED SEPARATELY ON WATER BILL	
IF USDA RD LOAN ANNUAL RESERVE FUNDING	\$0

List any additional notes on the loans here.

**Missaukee Drain #2
CASH FLOW STATEMENT - ACTUAL**

The cash flow statement does not include any Depreciation - But does included principal and interest on all loan payments

	YEAR OF	YEAR OF	YEAR OF
	2023	2024	2025
EXPENSES ACTUAL			
EXPENSES ACTUAL	\$362,702	\$482,352	\$516,956
INTEREST	\$7,693	\$6,502	\$5,276
PRINCIPAL	\$40,368	\$41,559	\$42,785
MINUS DEPRECIATION	\$105,868	\$106,053	\$107,389
NORMAL ANNUAL OPERATING EXPENSES	\$304,895	\$424,360	\$457,628
ONE TIME EXPENDITURES		\$30,247	
OVERALL EXPENSES	\$304,895	\$454,607	\$457,628
INCOME ACTUAL EARNED			
REVENUE	\$337,745	\$376,844	\$411,026
INCOME TOTAL CUSTOMER BILLINGS	\$337,745	\$376,844	\$411,026
OVERALL INCOME	\$337,745	\$376,844	\$411,026
PROFIT / LOSS CUSTOMER BILLINGS	\$32,850	-\$47,516	-\$46,602
OVERALL PROFIT / LOSS	\$32,850	-\$77,763	-\$46,602

Please be sure to review the results of this evaluation with your community's attorney

CALCULATED RESULTS OF SEWER RATE ANALYSIS

Missaukee Drain #2	ANNUAL BUDGET	PERCENT FIXED EXPENSES	BASE RATE FIXED EXPENSES	COST PER FALSE
LABOR & BENEFITS	\$202,600	100%	\$202,600	\$65.23
OPERATION & MAINTENANCE EXPENSES	\$316,414	100%	\$316,414	\$101.87
SUBTOTAL OPERATIONAL EXPENSES	\$519,014		\$519,014	\$167.10

New Truck 2026	\$15,290	100%	\$15,290	\$4.92
Irrigation Loan	\$48,061	100%	\$48,061	\$15.47
NEW LOAN	\$18,274	100%	\$18,274	\$5.88
SUBTOTAL LOANS	\$81,625		\$81,625	\$26.28

TOTAL REGULAR EXPENSES	\$600,639		\$600,639	\$193.38
-------------------------------	-----------	--	-----------	-----------------

NON OPERATING INCOME REDUCTION PER REU / UNIT **\$0.00**

RATE CHARGE FOR O&M AND LOANS \$193.38

CURRENT RATE \$161.63

INCREASE \$31.75

PERCENT INCREASE 20%

OVERALL PERCENT INCREASE FOR GALLONS OF	4,000		#VALUE!
--	-------	--	---------

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS	\$65,500	100%	\$65,500	\$21.09
CAPITAL IMPROVEMENT PROJECTS	\$55,000	100%	\$55,000	\$17.71
LAGOON CLEANING RESERVE	\$36,000	100%	\$36,000	\$11.59

SUBTOTAL RESERVES	\$156,500		\$156,500	\$50.39
--------------------------	-----------	--	-----------	----------------

ADOPTED BUDGET	\$757,139		\$757,139	\$243.76
-----------------------	------------------	--	------------------	-----------------

CURRENT REVENUE	\$502,036		100%
-----------------	------------------	--	------

NON OPERATING INCOME REDUCTION CONTRIBUTION			\$0
---	--	--	------------

REVENUE COLLECTED THROUGH RATES	\$757,139		\$757,139
---------------------------------	------------------	--	------------------

NON OPERATING INCOME REDUCTION PER REU / UNIT			0.00
---	--	--	-------------

CALCULATED RATE PER FALSE PER QUARTER	\$243.76
--	-----------------

ANNUAL EQUIVALENT REU'S 3,106	CURRENT RATES	\$161.63
ANTICIPATED GALLONS INVOICED 0	INCREASE OF	\$82.13
INVOICES PER YEAR 4	PERCENT INCREASE	50.8%

2026

Missaukee Drain #2

Missaukee Drain #2						
	NEW		CURRENT			DIFFERENCE PER QUARTER
METER SIZE	BASE RATE PER QUARTER	METER RATIO FACTOR BEING USED	BASE RATE PER QUARTER	CURRENT / OLD METER RATIO	PERCENT INCREASE	
REU	\$243.76	1.00	\$161.63	1.00	50.8%	\$82.13

--

CONFIRMATION OF INCOME - BASED ON CALCULATED F

Missaukee Drain #2		
	Missaukee Drain #2	REVENUE
METER SIZE	NEW BASE RATE PER QUARTER	
REU	\$243.76	
NO. CUSTOMERS	776.52	
INVOICES PER YEAR	4	
ANNUAL INVOICES	3,106	
<i>INCOME</i>	\$757,139.14	\$757,139
Fixed Income		\$757,139
ANTICIPATED LOSS OF FIXED INCOME FROM REU REDUCTION		\$0
INCOME GENERATED BASE RATE		\$757,139
NON SALES INCOME APPLIED TO FIXED BUDGET		\$0
ANTICIPATED REVENUE BASE RATE / RTS + NONE SALES INCOME		\$757,139
COMBINED CUSTOMER INCOME = BASE RATE + VOLUME INCOME		\$757,139
TOTAL COMBINED CUSTOMER INCOME		\$757,139
Budget Goal		\$757,139
Difference		\$0

Short Lived Assets - Equipment Replacement – Repair Replacement and Improvement

A replacement schedule should be developed that indicates those assets that will be replaced within the next 15 years (short lived assets) that will be **funded from system revenues**. The schedule will typically contain assets with a value of greater than \$1,000 dollars, or routinely recurring maintenance items. A couple of examples of these types of assets are: water tower paintings and chlorine pumps, well pumps and controls, raw sewage pumps, sanitary sewage pumps stations etc. Larger more long term items like water distribution piping, wells, water towers, standby generators. etc or items with a longer life expectancy of greater than 15 years, are typically included in a Capital Improvements program. See notes below in Capital Improvements

This schedule can also be expanded to include programmed maintenance or repair, making it a Repair & Replacement Schedule. The types of maintenance activities that can be included here are major, repairs, or items that occur on a non-yearly schedule or irregular schedule, such as a storage tank inspection done every five years and a tank overhaul (repaint, structural testing, cleaning) or leak detection every 3 years or a digester cleaning every ten years, or a well cleaning done every 5 years. If it occurs every year then it should be in the standard O & M budget. This Schedule does not replace the normal annual operation and maintenance budget. It merely reflects those elements that are major budget items that do NOT occur on an annual basis and thus are not in the typically O&M annual budget. These are generally items that constitute a major budget expenditure.

The schedule should include all of the recurring and non-recurring items for a 15 year period. The short lived asset Repair and Replacement Schedule should be updated annually..

It is absolutely critical that the items in the Repair and Replacement Schedule be entered into the rate setting process. These items must be funded out of system revenues, so they must be accounted for in the annual budget and in the rates. The Schedule will probably not be uniform from year to year in terms of amount of expenditure. To address this issue, the program will set an annual annuity payment to cover the Repair and Replacement Schedule expenses over the long term. Some years, the annual funding amount will be greater than that year's expenses, so money would go into the Repair and Replacement Reserve. Other years, the amount collected will be less than the expenses incurred, and the additional funding needed would come from the reserve account. The annual annuity set would have to be sufficient to cover all of the expenses over the 15 year period. This program becomes a living document and the annual funding amount should be adjusted as new equipment is purchased and the program is updated.

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS				
			COST OF LIVING INCREASE	1.00%
			CURRENT RESERVE BALANCE APPLIED TO THIS ACCOUNT - INCLUDES RRI BALANCE	\$0
			AVG. INTEREST RATE IN SAVINGS	0.10%
ASSET REPLACEMENT CALCULATED ANNUAL FUNDING			\$1,005,250	
ASSET REHAB ANNUAL FUNDING			\$0	
Annual Funding Applied to Budget / Rates			\$65,500	
USDA RURAL DEVELOPMENT "RRI" ANNUAL RESERVE			\$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 AMOUNT	RUNNING BALANCE
2026	SEE EQUIPMENT LIST	\$0	\$65,500	\$65,565
2027	FOR ANNUAL EXPENDITURES	\$0	\$65,500	\$131,131
2028		\$0	\$65,500	\$196,762
2029		\$0	\$65,500	\$262,459
2030		\$0	\$65,500	\$328,221
2031		\$0	\$65,500	\$394,050
2032		\$0	\$65,500	\$459,944
2033		\$0	\$65,500	\$525,904
2034		\$0	\$65,500	\$591,930
2035		\$0	\$65,500	\$658,021
2036		\$0	\$65,500	\$724,179
2037		\$0	\$65,500	\$790,404
2038		\$0	\$65,500	\$856,694
2039		\$0	\$65,500	\$923,051
2040		\$57,000	\$65,500	\$932,474
2041		\$0	\$65,500	\$998,906
2042		\$0	\$65,500	\$1,065,405
2043		\$1,130,220	\$65,500	\$1,751
2044		\$0	\$65,500	\$67,252
2045		\$0	\$65,500	\$132,820
2046		\$0	\$65,500	\$198,452
2047		\$0	\$65,500	\$264,151
2048		\$0	\$65,500	\$329,915
2049		\$0	\$65,500	\$395,745
2050		\$0	\$65,500	\$461,641
2051		\$0	\$65,500	\$527,602
2052		\$0	\$65,500	\$593,630
2053		\$0	\$65,500	\$659,724
				\$0

Missaukee Drain #2		YEAR OF 2026				
CAPITAL IMPROVEMENT PROJECTS						
CAPITAL IMPROVEMENT IDEAS WERE GENERATED FROM						
NOTES						
CAPITAL PROJECT	PRIORITY	ESTIMATED PROJECT COST	AMOUNT FUNDED IN WATER BUDGET	COMPLETE IN YEAR OF	IS THIS YEAR FLEXIBLE?	MONEY RESERVED ANNUALLY
Pressure Washer	A	\$15,000	\$15,000	2028	YES	\$7,500
New Truck	A	\$80,000	\$0	2027	YES	\$0
General Equipment Upgrades	C	\$37,500	\$37,500	2028	YES	\$18,750
Lift Stations	C	\$1,075,000	\$53,750	2030	YES	\$13,438
4" Trash Pump	C	\$40,000	\$40,000	2031	YES	\$8,000
Portable Generator	C	\$75,000	\$3,750	2029	YES	\$1,250
Irrigation System Upgrades	C	\$335,000	\$16,750	2030	YES	\$4,188
Zero Turn Mower	C	\$17,000	\$17,000	2027	YES	\$17,000
Valve Turning Machine	C	\$6,000	\$6,000	2027	YES	\$6,000
Generator for WWTP	C	\$100,000	\$100,000	2029	YES	\$33,333
Spare Aerators	C	\$65,000	\$3,250	2030	YES	\$813
Plow Replacement	C	\$40,000	\$40,000	2032	YES	\$6,667
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
0	C	\$0	\$0	0	YES	\$0
TOTALS		\$1,885,500.00	\$333,000.00			\$116,937.50

CAPITAL IMPROVEMENT PROJECTS							
						ANNUAL COST OF LIVING INCREASE	2.00%
						CURRENT RESERVE BALANCE APPLIED TO CAPITAL IMPROVEMENTS	
						AVG. INTEREST RATE IN SAVINGS	0.00%
THIS COULD BE FROM A LOAN THAT GETS PAID OFF							
YEAR	PROJECT	CIP EXPENDITURES	EXTRA ANNUAL CIP FUNDING	ANNUAL AVERAGE BUDGET	TOTAL COMBINED ANNUAL FUNDING	RUNNING BALANCE	
2026	SEE LIST	\$0	\$0	\$55,000	\$55,000	\$55,000	
2027		\$23,460	\$0	\$55,000	\$55,000	\$86,940	
2028		\$54,600	\$0	\$55,000	\$55,000	\$86,940	
2029		\$109,975	\$0	\$55,000	\$55,000	\$31,965	
2030		\$79,650	\$0	\$55,000	\$55,000	\$7,315	
2031		\$44,000	\$0	\$55,000	\$55,000	\$18,315	
2032		\$44,800	\$0	\$55,000	\$55,000	\$28,515	
2033		\$0	\$0	\$55,000	\$55,000	\$83,515	
2034		\$0	\$0	\$55,000	\$55,000	\$138,515	
2035		\$0	\$0	\$55,000	\$55,000	\$193,515	
2036		\$0	\$0	\$55,000	\$55,000	\$248,515	
2037		\$0	\$0	\$55,000	\$55,000	\$303,515	
2038		\$0	\$0	\$55,000	\$55,000	\$358,515	
2039		\$0	\$0	\$55,000	\$55,000	\$413,515	
2040		\$0	\$0	\$55,000	\$55,000	\$468,515	
2041		\$0	\$0	\$55,000	\$55,000	\$523,515	
2042		\$0	\$0	\$55,000	\$55,000	\$578,515	
2043		\$0	\$0	\$55,000	\$55,000	\$633,515	
2044		\$0	\$0	\$55,000	\$55,000	\$688,515	
2045		\$0	\$0	\$55,000	\$55,000	\$743,515	
2046		\$0	\$0	\$55,000	\$55,000	\$798,515	

CAPITAL ITEM > Pressure Washer

Description of Project

Portable washer with hot and cold

Justification

		PERCENT FUNDED	100%		
Itemized Breakdown	Cost	ALLOCATION	Total	Funding Sources:	Total
	\$ 15,000	COST FUNDED BY BUDGET / RATES	\$ 15,000	COST FUNDED BY BUDGET / RATES	\$ 15,000
		COMPLETE IN YEAR OF ?	2028	Other funding sources or from existing savings?	\$ -
		YEARS TO PREPARE	2	Loans	
		COST PER YEAR	\$ 7,500	Grants	
		REMAINING COST	\$ -	Etc	
				Total Cost of Project	\$ 15,000
Total Cost of Project	\$ 15,000				

Complete in Year Of **2028**
Is Year Flexible Yes/No? YES
Priority Rating "A,B,C" A

Priority Rating
A - Immediate (Health & Safety, Structural)
B - Needed Benefit, But not Critical to operation of system
C - Long Term Goal

CAPITAL ITEM > New Truck

Description of Project

See New Loan

Location

Justification

PERCENT FUNDED 0.0%

Itemized Breakdown	Cost
	\$ 80,000
Total Cost of Project	\$ 80,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ -
COMPLETE IN YEAR OF ? YEARS TO PREPARE	2027 1
COST PER YEAR	\$ -
REMAINING COST	\$ 80,000

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ -
Other funding sources or from existing savings	\$ 80,000
Total Cost of Project	\$ 80,000

Complete in Year Of 2027?

Is Year Flexible Yes/No?

Priority Rating "A,B,C"

YES

A

Priority Rating

A - Immediate (Health & Safety, Structural)

B - Needed Benefit, But not Critical to operation of system

C - Long Term Goal

CAPITAL ITEM > General Equipment Upgrades

Description of Project

Harness, confined space tripod, line locator, spare parts

Location

Justification

PERCENT FUNDED 100.0%

Itemized Breakdown	Cost
Safety Equipment	\$ 15,000
Line Locator	\$ 2,500
General spare parts	\$ 20,000
Total Cost of Project	\$ 37,500

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 37,500
COMPLETE IN YEAR OF ?	2028
YEARS TO PREPARE	2
COST PER YEAR	\$ 18,750.00
REMAINING COST	\$ -

Funding Sources:	Total
COST FUNDED BY RATES	\$ 37,500
Other funding sources or from existing savings	\$ -
Total Cost of Project	\$ 37,500

Complete in Year Of 2028 ?
Is Year Flexible? YES
Priority Rating "A,B,C" C

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

CAPITAL ITEM > Lift Stations

Description of Project

Location

Justification

PERCENT FUNDED

5%

Itemized Breakdown	Cost
Upgrade Panels	\$ 300,000
New Pumps all LS	\$ 400,000
Coating Wet Wells	\$ 300,000
Generator Main Lift statons	\$ 75,000
Total Cost of Project	\$ 1,075,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 53,750
COMPLETE IN YEAR OF ?	2030
YEARS TO PREPARE	4
COST PER YEAR	\$ 13,437.50
REMAINING COST	\$ 1,021,250

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 53,750
Other funding sources	\$ 1,021,250
Total Cost of Project	\$ 1,075,000

Complete in Year Of	2030
Is Year Flexible?	YES
Priority Rating "A,B,C"	C

Priority Rating

- A - Immediate (Health & Safety, Structural)
- B - Needed Benefit, But not Critical to operation of system
- C - Long Term Goal

CAPITAL ITEM > 4" Trash Pump

Description of Project

Justification

PERCENT FUNDED 100.0%

Itemized Breakdown	Cost
	\$ 40,000
Total Cost of Project	\$ 40,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 40,000
COMPLETE IN YEAR OF ?	2031
YEARS TO PREPARE	5
COST PER YEAR	\$ 8,000.00
REMAINING COST	\$ -

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 40,000
Other funding sources	\$ -
Total Cost of Project	\$ 40,000

Complete in Year Of **2031** ?
Is Year Flexible? YES
Priority Rating "A,B,C" C

Priority Rating
A - Immediate (Health & Safety, Structural)
B - Needed Benefit, But not Critical to operation of system
C - Long Term Goal

CAPITAL ITEM > Portable Generator

Description of Project

Justification

Itemized Breakdown		Cost	PERCENT FUNDED		5%	Funding Sources:		Total
		\$ 75,000	ALLOCATION	Total		COST FUNDED BY BUDGET / RATES	\$ 3,750	\$ 3,750
			COST FUNDED BY BUDGET / RATES	\$ 3,750		Other funding sources	\$ 71,250	\$ 71,250
			COMPLETE IN YEAR OF ?	2029				
			YEARS TO PREPARE	3				
			COST PER YEAR	\$ 1,250.00				
			REMAINING COST	\$ 71,250				
Total Cost of Project		\$ 75,000				Total Cost of Project	\$ 75,000	

Complete in Year Of **2029**

Is Year Flexible? **YES**
 Priority Rating "A,B,C" **C**

Priority Rating

- A - Immediate (Health & Safety, Structural)
- B - Needed Benefit, But not Critical to operation of system
- C - Long Term Goal

CAPITAL ITEM > Irrigation System Upgrades

Description of Project

Location

Justification

		PERCENT FUNDED		5%					
Itemized Breakdown		Cost		ALLOCATION		Funding Sources:			
New Tires	\$	50,000		COST FUNDED BY BUDGET / RATES	\$	16,750	COST FUNDED BY BUDGET / RATES	\$	16,750
Building for Spare Parts	\$	60,000		COMPLETE IN YEAR OF ?		2030	Other funding sources	\$	318,250
Barn Upgrade	\$	50,000		YEARS TO PREPARE		4			
Irrigation Pump Building	\$	100,000		COST PER YEAR	\$	4,187.50			
Irrigation Pump Upgrads	\$	75,000		REMAINING COST	\$	318,250			
							Total Cost of Project	\$	335,000
Total Cost of Project	\$	335,000							

Complete in Year Of **2030**
Is Year Flexible? **YES**
Priority Rating "A,B,C" **C**

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

CAPITAL ITEM > Valve Turning Machine

Description of Project

Location

Justification

PERCENT FUNDED 100.0%

Itemized Breakdown	Cost
	\$ 6,000
Total Cost of Project	\$ 6,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 6,000
COMPLETE IN YEAR OF ? YEARS TO PREPARE	2027 1
COST PER YEAR	\$ 6,000.00
REMAINING COST	\$ -

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 6,000
Other funding sources	\$ -
Total Cost of Project	\$ 6,000

Complete in Year Of 2027
 Is Year Flexible? YES
 Priority Rating "A,B,C" C

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

CAPITAL ITEM > Generator for WWTP

Description of Project

Location

Justification

PERCENT FUNDED 100%

Itemized Breakdown	Cost
	\$ 100,000
Total Cost of Project	\$ 100,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 100,000
COMPLETE IN YEAR OF ?	2029
YEARS TO PREPARE	3
COST PER YEAR	\$ 33,333.33
REMAINING COST	\$ -

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 100,000
Other funding sources	\$ -
Grants	
Loan	
Bonds	
Total Cost of Project	\$ 100,000

Complete in Year Of **2029**
 Is Year Flexible? **YES**
 Priority Rating "A,B,C" **C**

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

CAPITAL ITEM > Spare Aerators

Description of Project

Location

Justification

PERCENT FUNDED 5.0%

Itemized Breakdown	Cost
One aerator	\$ 65,000
Total Cost of Project	\$ 65,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 3,250
COMPLETE IN YEAR OF ?	2030
YEARS TO PREPARE	4
COST PER YEAR	\$ 812.50
REMAINING COST	\$ 61,750

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 3,250
Other funding sources	\$ 61,750
Total Cost of Project	\$ 65,000

Complete in Year Of 2030
 Is Year Flexible? YES
 Priority Rating "A,B,C" C

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

CAPITAL ITEM > Plow Replacement

Description of Project

X2

Location

Justification

PERCENT FUNDED 100%

Itemized Breakdown	Cost
	\$ 40,000
Total Cost of Project	\$ 40,000

ALLOCATION	Total
COST FUNDED BY BUDGET / RATES	\$ 40,000
COMPLETE IN YEAR OF ?	2032
YEARS TO PREPARE	6
COST PER YEAR	\$ 6,666.67
REMAINING COST	\$ -

Funding Sources:	Total
COST FUNDED BY BUDGET / RATES	\$ 40,000
OTHER FUNDING SOURCES	\$ -
Total Cost of Project	\$ 40,000

Complete in Year Of 2032
 Is Year Flexible? YES
 Priority Rating "A,B,C" C

Priority Rating
 A - Immediate (Health & Safety, Structural)
 B - Needed Benefit, But not Critical to operation of system
 C - Long Term Goal

Missaukee Drain #2	YEAR			2026
LAGOON CLEANING RESERVE				
	Estimated Cleaning Cost	Years to Save	Clean In Year	Cost per Year
Sludge Removal Lagoon 1	\$ 150,000.00	10	2036	\$ 15,000
Sludge Removal Lagoon 2	\$ 150,000.00	10	2036	\$ 15,000
Sludge Removal Lagoon 3	\$ 150,000.00	10	2036	\$ 15,000
Sludge Removal Lagoon 4				
Sludge Removal Lagoon 5				
	TOTAL			\$ 45,000

NOTES: Pond #1 = 2.0 Pond #2 = 2.5 Pond #3 = 2.5

LAGOON CLEANING RESERVE				
CURRENT RESERVE BALANCE APPLIED TO LAGOON CLEANING				
AVG. INTEREST RATE IN SAVINGS:				0.10%
Calculated Annual Total		\$	45,000	
BUDGET			80%	
Dollars Applied to ANNUAL BUDGET		\$	36,000	
YEAR	PURPOSE	PURCHASE WITHDRAWAL	ANNUAL PAYMENT	END OF YEAR BALANCE
2026		\$ -	\$ 36,000	\$36,036
2027		\$ -	\$ 36,000	\$72,108
2028		\$ -	\$ 36,000	\$108,216
2029		\$ -	\$ 36,000	\$144,360
2030		\$ -	\$ 36,000	\$180,541
2031		\$ -	\$ 36,000	\$216,757
2032		\$ -	\$ 36,000	\$253,010
2033		\$ -	\$ 36,000	\$289,299
2034		\$ -	\$ 36,000	\$325,624
2035		\$ -	\$ 36,000	\$361,986
2036		\$ 450,000	\$ 36,000	(\$51,616)
2037		\$ -	\$ 36,000	(\$15,632)
2038		\$ -	\$ 36,000	\$20,389
2039		\$ -	\$ 36,000	\$56,445
2040		\$ -	\$ 36,000	\$92,538
2041		\$ -	\$ 36,000	\$128,666
2042		\$ -	\$ 36,000	\$164,831
2043		\$ -	\$ 36,000	\$201,032
2044		\$ -	\$ 36,000	\$237,269
2045		\$ -	\$ 36,000	\$273,542
2046		\$ -	\$ 36,000	\$309,851
2047		\$ -	\$ 36,000	\$346,197
2048		\$ -	\$ 36,000	\$382,579
2049		\$ -	\$ 36,000	\$418,998
2050		\$ -	\$ 36,000	\$455,453
2051		\$ -	\$ 36,000	\$491,944
2052		\$ -	\$ 36,000	\$528,472
2053		\$ -	\$ 36,000	\$565,037

FIVE YEAR INCREASE							
Missaukee Drain #2							
Missaukee Drain #2							
LOANS, RESERVE FUNDING & OTHER EXPENSES				\$76.66			
LABOR & OPERATIONS COST PER REU				\$167.10			
MINUS NON-OPERATING EXTRA INCOME				\$0.00			
TOTAL RATE				\$243.76			
Suggested annual increase in percent				5.0%			
BASE RATE COST							
YEAR	LABOR & OPER. RATE	% INCREASE	\$ INCREASE	LABOR & OPER. RATE	TOTAL RATE	NON OPERATING INCOME	PROJECTED INCOME FIXED COST
2027	\$167.10	5.0%	\$8.355	\$175.45	\$252.12	\$0	\$783,090
2028	\$175.45	5.0%	\$8.773	\$184.22	\$260.89	\$0	\$810,338
2029	\$184.22	5.0%	\$9.211	\$193.43	\$270.10	\$0	\$838,949
2030	\$193.43	5.0%	\$9.672	\$203.11	\$279.77	\$0	\$868,990
2031	\$203.11	5.0%	\$10.155	\$213.26	\$289.93	\$0	\$900,533
INCREASE CALCULATION USES ONLY LABOR & OPERATIONS COST -							

INCREASE RATES ANNUALLY

LOANS / BONDS / ARE NOT INCLUDED IN ANNUAL INCREASE. RESERVE FUNDING ALREADY HAS COST OF LIVING BUILT INTO REPLACEMENT SPREADSHEETS.

Customers are more likely to pay for rate increases if their rates are generally stable. Most systems know that the worst thing they can do is maintain a stable rate for many years, then increase it by 10 percent or more. A single, large increase can lead to "rate shock" and opposition to the increase. It is far better to increase rates by 2 percent per year for 5 years

BASE RATE STEP INCREASE

Missaukee Drain #2

Use this page to implement a rate increase over a multiple year period, rather than all at once.

NEW COST PER	FALSE	\$243.76
CURRENT COST per REU - PER INVOICE		\$161.63
CALCULATED INCREASE PER INVOICE / REU		\$82.13
YEARS TO IMPLEMENT RATE INCREASE	2	
CALCULATED STEP INCREASE PER RTS		\$41.07
NEW RATE FIRST YEAR WITH OUT COLA		\$202.70
ANNUAL COST OF LIVING INCREASE %	3.0%	
COST OF LIVING ADJUSTMENT ON ENTIRE RATE INCLUDING DEBT		\$6.081
NEW RATE FIRST YEAR		\$208.78

COLA IS ON ENTIRE RATE INCLUDING DEBT

3% PROJECTED BUDGET C.O.L INCREASE ONLY ON O&M & LABOR

YEAR	COST OF LIVING % INCREASE	COST OF LIVING \$ INCREASE	STEP INCREASE	TOTAL INCREASE	PERCENT INCREASE	NEW RATE	PROJECTED FIXED INCOME	PROJECTED FIXED BUDGET	DIFFERENCE	RUNNING TOTAL
1	3.0%	\$6.08	\$41.07	\$47.15	29.2%	\$208.78	\$648,475	\$757,139	(\$108,664)	(\$108,664)
2	3.0%	\$6.26	\$41.07	\$47.33	22.7%	\$256.10	\$795,481	\$772,710	\$22,771	(\$85,893)
3	3.0%	\$7.68		\$7.68	3.0%	\$263.79	\$819,345	\$788,747	\$30,598	(\$55,294)
4	3.0%	\$7.91		\$7.91	3.0%	\$271.70	\$843,926	\$805,266	\$38,660	(\$16,634)
5	3.0%	\$8.15		\$8.15	3.0%	\$279.85	\$869,244	\$822,280	\$46,964	\$30,329

Use this page to implement a rate increase over a multiple year period rather than a one time large increase. This table has the rate increase occurring over a **two** year period, with an annual cost of living increase of **5%** - SEE TAB 34 FOR LARGER METER DETAILS