



CITY OF MADERA

FINAL REPORT

Storm Drain Rate Study

MARCH 2022

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SECTION 1. PURPOSE AND OVERVIEW OF THE STUDY

A. Purpose

The City of Madera (City) retained NBS to conduct a comprehensive storm drain rate study. The study looked at setting rates to meet revenue requirements, provide greater financial stability for the storm drainage enterprise, and comply with legal requirements (such as California Constitution article XIII D, Section 6, which is commonly referred to as Proposition 218 [Prop 218]). The rates resulting from this study were developed in a manner that is consistent with industry standard cost of service principles. In addition to documenting the rate study methodology, this report is provided with the intent of assisting the City to maintain transparent communications with its residents and businesses.

In developing new storm drain rates, NBS worked cooperatively with City staff and the City Council (Council) in selecting appropriate proposed rates. Based on input from all stakeholders, the proposed rates are summarized in this report.

B. Overview of the Study

FINANCIAL PLAN

As a part of this rate study, NBS projected revenues and expenditures on a cash flow basis for the next five years. The amount of rate revenue required, that will allow reserves to be maintained at the recommended levels, is known as the *net revenue requirement*. As current rate revenue falls short of the net revenue requirement, rate adjustments -- or more accurately, adjustments in the total revenue collected from rates -- are recommended. This report presents an overview of the methodologies, assumptions, and data used, along with the financial plans and proposed rates developed in this study¹.

STORM DRAIN RATE DESIGN ANALYSIS

Rate design is typically the stage in the study where NBS, staff and the Council must work closely together, to develop rate alternatives that will meet the City's objectives. It is important for the storm drain utility to send proper price signals to its customers about the actual cost of providing storm drain services to each parcel. This objective is typically addressed through both the magnitude of the rate adjustments, and the rate structure design. In other words, both the amount of revenue collected, and the way in which the revenue is collected from customers are important.

¹ The complete financial plan is set forth in the Appendix.

SECTION 2. STORM DRAIN RATE STUDY

A. Key Storm Drain Rate Study Issues

The City's storm drain rate analysis was undertaken with a few specific objectives, including:

- Maintain routine operation and maintenance expenditures of the storm drain system, including salaries and benefits of staff, contracted services and sustainability programs.
- Fund any potential capital projects to maintain a modern and reliable storm drain network and infrastructure.
- Maintain reserve fund levels to ensure future financial stability for the storm drain utility.
- Comply with Prop 218 requirements to ensure cost of service are properly allocated amongst user classifications.

The rate structure NBS proposed relied on industry standards and cost-of-service principles. The proposed rates follow the same rate structure as current rates, maintaining a fixed monthly usage charge dependent on customer class and square footage.

B. Financial Plan

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate adjustments are governed by the need to meet these objectives. The current state of the City's storm drain utility, with regard to these objectives, is as follows:

- **Meeting Net Revenue Requirements:** For Fiscal Years (FY) 2022/23 through FY 2026/27, the projected net revenue requirement (that is, total annual expenses plus debt service and rate-funded capital costs², less non-rate revenues) for the City is approximately \$1 million on average, annually. If no rate adjustments are implemented, the City is projected to have about a \$111,000 deficit in FY 2022/23.
- **Building and Maintaining Reserve Funds:** Reserve funds provide a basis for a utility to cope with fiscal emergencies such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and emergencies. The reserve funds for the Utility are considered unrestricted reserves and consist of the following:
 - **The Operating Reserve** should equal approximately 90 days of operating expenses (reaching approximately \$230,000 in FY 2026/27). An Operating Reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures, such as – particularly in periods of economic distress – changes or trends in age of receivables.

² The City's storm drain utility does not currently have any outstanding debt services or capital improvement projects over the next 5 years at the time of this study.

- **The Capital Outlay Reserve** should equal 3% of net assets, averaging about \$500,000 over the next five years. These monies are set aside to address long-term and routine capital system replacement and rehabilitation needs.
- **Funding Capital Improvement Projects:** The City must also be able to fund necessary capital improvements to maintain current service levels. Currently, the City is estimating an annual capital improvement plan of \$200,000 for the storm drain utility.
- **Inflation and Growth Projections:** Assumptions regarding cost inflation were made in order to project future revenues and expenses for the study period.
 - Customer growth is expected to be 0% annually.
 - General inflation is assumed to be 3% annually.
 - Salaries, benefits, fuel, and electricity are all assumed to be 5% annually.
 - Some expenses are assumed to have no escalation annually.
- **Maintaining Adequate Bond Coverage:** The City currently has no outstanding debt service obligations. However, the benefit of maintaining a debt coverage ratio over 1.20 is that it strengthens the City's credit rating, which can help lower the interest rates for debt-funded capital projects in the future, should the City decide to use them.

Rate revenue adjustments of fifteen percent (15%) in FY 2022/23 through FY 2026/27 will be needed in order to fund operating expenses and maintain reserves at the recommended targets. **Figure 1** summarizes the sources and uses of funds, net revenue requirements, and the recommended annual percent adjustments in total rate revenue recommended for the next 5 years for the City.

Figure 1. Summary of Storm Drain Revenue Requirements

Summary of Sources and Uses of Funds and Net Revenue Requirements	Projected					
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Sources of Storm Drain Funds						
Rate Revenue Under Prevailing Rates	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179
<i>Additional Revenue from Rate Increases¹</i>	-	100,227	215,488	348,038	500,470	675,768
Non-Rate Revenues	12,442	12,442	12,442	12,442	12,442	12,442
Interest Earnings	14,925	13,414	9,479	6,962	6,183	7,511
Total Sources of Funds	\$ 695,546	\$ 794,262	\$ 905,588	\$ 1,035,621	\$ 1,187,274	\$ 1,363,900
Uses of Storm Drain Funds						
Operating Expenses	\$ 776,800	\$ 805,800	\$ 835,900	\$ 867,400	\$ 900,500	\$ 935,200
Debt Service	-	-	-	-	-	-
Rate-Funded Capital Expenses	-	-	205,000	210,125	215,378	220,763
Total Use of Funds	\$ 776,800	\$ 805,800	\$ 1,040,900	\$ 1,077,525	\$ 1,115,878	\$ 1,155,963
Surplus (Deficiency) after Rate Increase	\$ (81,254)	\$ (11,538)	\$ (135,312)	\$ (41,904)	\$ 71,396	\$ 207,937
Projected Annual Rate Increase	0.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Cumulative Rate Increases	0.00%	15.00%	32.25%	52.09%	74.90%	101.14%
Surplus (Deficiency) before Rate Increase	\$ (81,254)	\$ (111,765)	\$ (350,800)	\$ (389,942)	\$ (429,074)	\$ (467,831)
Net Revenue Requirement²	\$ 749,433	\$ 779,944	\$ 1,018,979	\$ 1,058,121	\$ 1,097,253	\$ 1,136,010

1. Revenue from rate increases assume an implementation date of July 1, 2022 and then July 1st, 2023 through 2026.

2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from storm drain rates.

Figure 2 summarizes the projected reserve fund balances and reserve targets for the storm drain utility's unrestricted reserve funds. A more detailed version of the proposed 5-year financial plan is included in the Appendix. Given proposed rate adjustments, reserves will meet the minimum target by fiscal year 2027/28, one year after the Prop 218 rate period.

Figure 2. Summary of Reserve Funds

Beginning Reserve Fund Balances and Recommended Reserve Targets	Projected					
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Storm Drainage Operating Reserve Fund						
Ending Balance	\$ 103,507	\$ 91,969	\$ (43,343)	\$ (85,247)	\$ (13,851)	\$ 194,086
<i>Recommended Minimum Target</i>	<i>191,540</i>	<i>198,690</i>	<i>206,112</i>	<i>213,879</i>	<i>222,041</i>	<i>230,597</i>
Capital Outlay Reserve Fund						
Ending Balance	\$ 617,661	\$ 417,661	\$ 417,661	\$ 417,661	\$ 417,661	\$ 417,661
<i>Recommended Minimum Target</i>	<i>532,200</i>	<i>525,400</i>	<i>518,900</i>	<i>512,700</i>	<i>506,900</i>	<i>501,400</i>
Total Ending Balance	\$ 721,169	\$ 509,630	\$ 374,318	\$ 332,414	\$ 403,810	\$ 611,747
<i>Total Recommended Minimum Target</i>	<i>\$ 723,740</i>	<i>\$ 724,090</i>	<i>\$ 725,012</i>	<i>\$ 726,579</i>	<i>\$ 728,941</i>	<i>\$ 731,997</i>

C. Cost of Service Analysis

Once the net revenue requirements are determined, the cost-of-service analysis proportionately distributes the revenue requirements to each of the customer classes. All costs in the City's budget are allocated to each component of the rate structure in proportion to the level of service required by customers. The levels of service are related to number of accounts, total square footage, and current revenue. Ultimately, a cost-of-service analysis is intended to result in rates that are proportional to the cost of providing service to each customer.

CUSTOMER CLASSES

Customer classes are determined by combining customers with similar demand characteristics and types of use into categories that reflect the cost differentials to serve each type of customer. This process is limited by the desire to not overcomplicate the City's rate structure. For the City, the customer classes are split between single-family residential, multi-family residential, and non-residential. The current storm drainage rate structure has churches separated from residential and non-residential customers. However, there is no cost of service basis for making them different than non-residential. Therefore, they have been combined with non-residential.

The number of customers for each customer class and the estimated square foot total for non-single-family customers are shown in **Figure 3**. The 2020 rate revenue from usage charges are allocated to customer classes based on the revenue collected, as shown in **Figure 4**.

Figure 3. Customer Allocation Factor

Customer Class	Number of Accounts ¹	Percent of Total	Square Footage Estimate	Percent of Total
Single Family Residential	13,585	94.4%	n/a	
Multi Family Residential	4	0.0%	938,745	14.5%
Non-Residential	799	5.6%	5,532,315	85.5%
Total	14,388	100.0%	6,471,060	100.0%

1. Number of accounts from Oct. 2020 & square footage estimate from source files:

MAIS Meter Usage 12 Months_Manipulated_02.06.21.xlsx,

2020 SEP-NOV MUNIS Billing2_Manipulated.xlsx, 2020 DEC MUNIS Billing_Manipulated.xlsx

Figure 4. Revenue Allocation Factor

Customer Class	2020 Revenue	Percent of Total
Single Family Residential	\$ 415,808	61.1%
Multi Family Residential	\$ 12,919	1.9%
Non-Residential	\$ 251,973	37.0%
Total	\$ 680,699	100%

1. 2020 revenue found in source files: *MAIS Meter Usage 12 Months_Manipulated_02.06.21.xlsx*, *2020 SEP-NOV MUNIS Billing2_Manipulated.xlsx*, *2020 DEC MUNIS Billing_Manipulated.xlsx*

D. Rate Design Analysis

NBS recommends that the City retain the current storm drain rate structure, with a fixed monthly usage charge for single-family customers, and a per square foot charge (with a maximum monthly cap) for multi-family residential, non-residential (combined with churches). **Figure 5** summarizes the proposed storm drain monthly user charges.

Figure 5. Summary of Rate Calculation

Customer Classes	FY 2022/23 Net Revenue Requirement	Number of Accounts	Square Footage Estimate	By Account Monthly Charge	By Sq. Ft. Monthly Charge	Max Sq. Ft. Based on Current Rates	Max Monthly Rate
Proposed Storm Drain Monthly User Charges							
	<i>math formula a</i>	<i>b</i>	<i>c</i>	<i>d = b / a</i>	<i>e = c / a</i>	<i>f</i>	<i>g = f * e</i>
Single Family Residential	\$ 476,432	13,585	n/a	\$ 2.92	n/a	n/a	n/a
Multi Family Residential	\$ 14,802	4	938,745	n/a	\$ 0.002	40,000	\$ 80.00
40 units to 80 units	-	-	-	n/a	\$ 0.002	80,000	\$ 160.00
Over 81 units	-	-	-	n/a	\$ 0.002	120,000	\$ 240.00
Non-Residential	\$ 288,710	799	5,532,315	n/a	\$ 0.005	20,000	\$ 100.00
Total Net Revenue Requirement	\$ 779,944	14,388	6,471,060				

E. Proposed Storm Drain Rates

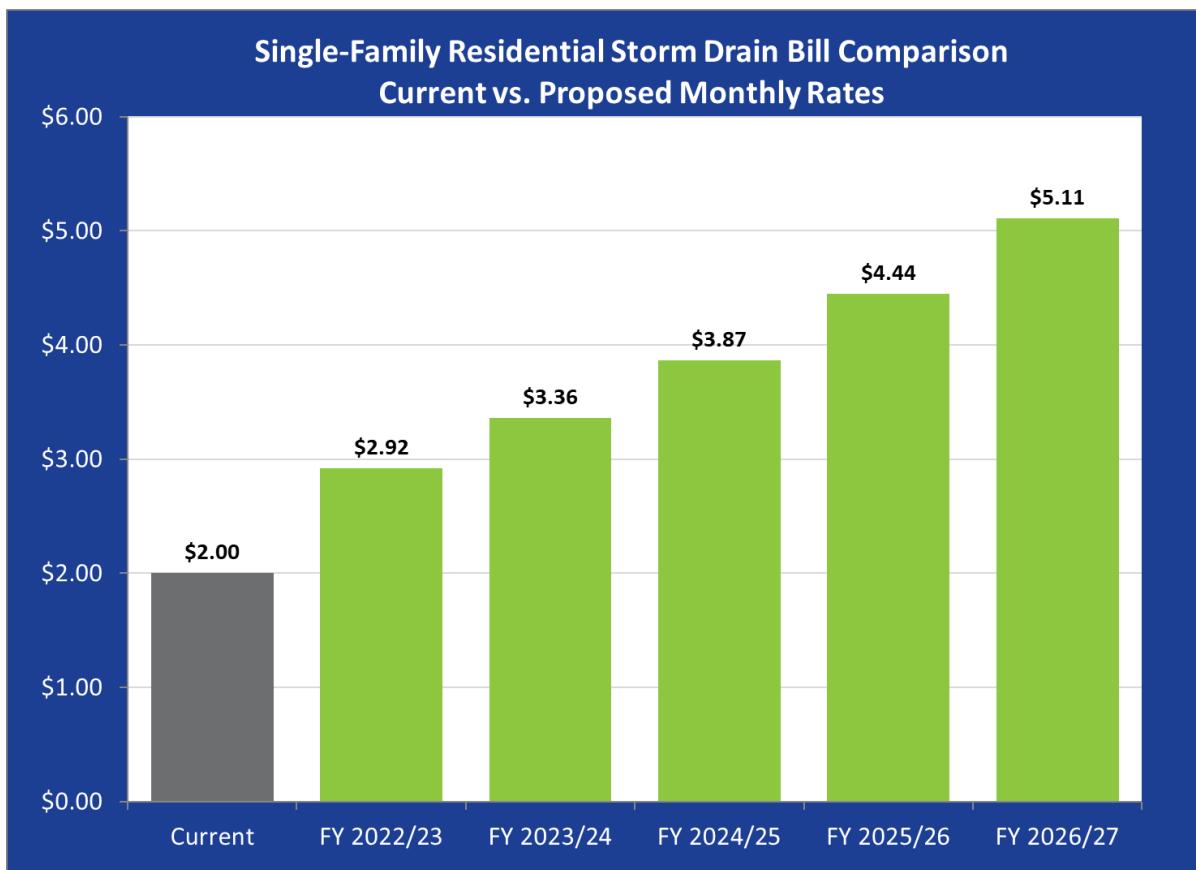
The cost-of-service analysis is used to establish the rates for the first year in the five-year rate plan, FY 2022/23. In the subsequent four years of the rate planning period, proposed charges are simply adjusted by the proposed adjustment in total rate revenue needed, to meet projected revenue requirements. **Figure 6** provides a comparison of the proposed rates for FY 2022/23 through FY 2026/27. More detailed tables on the development of the proposed charges are documented in the Appendix.

Figure 6. Proposed Storm Drain Rates

Storm Drain Rate Schedule	Current Rates	Proposed Rates				
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
<i>Proposed Monthly Usage Charge</i>						
Single Family Residential						
	<i>per month</i>	\$2.00	\$2.92	\$3.36	\$3.87	\$4.44
Multi Family Residential						
<i>Equal or less than 40 units</i>	<i>per square foot, maximum per month</i>	\$0.002 \$80.00	\$0.002 \$80.00	\$0.003 \$92.00	\$0.004 \$106.00	\$0.005 \$122.00
<i>Greater than 40 & equal or less than 80 units</i>	<i>per square foot, maximum per month</i>	\$0.002 \$160.00	\$0.002 \$160.00	\$0.003 \$184.00	\$0.004 \$212.00	\$0.005 \$244.00
<i>Greater than 81 units</i>	<i>per square foot, maximum per month</i>	\$0.002 \$240.00	\$0.002 \$240.00	\$0.003 \$276.00	\$0.004 \$317.00	\$0.005 \$365.00
Non-Residential (Including Churches)						
<i>per square foot of ground floor, maximum per month</i>	\$0.004 \$80.00	\$0.005 \$100.00	\$0.006 \$115.00	\$0.007 \$132.00	\$0.009 \$152.00	\$0.011 \$175.00

Figure 7 compares the monthly storm drain bills for the current and proposed rates for single-family residential customers over the next five years.

Figure 7. Monthly Bill Comparison for Single-Family Customers



SECTION 3. RECOMMENDATIONS AND NEXT STEPS

A. Consultant Recommendations

NBS recommends the City take the following actions:

Approve and accept this Study: NBS recommends the City Council formally approve and adopt this Study and its recommendations and proceed with the steps required to implement the proposed rates. This will provide documentation of the rate study analyses and the basis for analyzing potential changes to future rates.

Implement Recommended Levels of Rate Adjustments and Proposed Rates: Based on successfully meeting the Proposition 218 procedural requirements, the City Council should proceed with implementing the 5-year schedule of proposed rates and rate adjustments. This will help ensure the continued financial health of City's storm drain utility.

B. Next Steps

Annually Review Rates and Revenue – Any time an agency adopts new utility rates or rate structures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements.

Note: The attached Appendix provide more detailed information on the analysis of the storm drain revenue requirements, cost-of-service analysis and cost allocations, and the rate design analyses that have been summarized in this report.

C. NBS' Principal Assumptions and Considerations

In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions, and events that may occur in the future. This information and these assumptions, including City's budgets, capital improvement costs, and information from City staff were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

Appendix: Detailed Storm Drain Study Tables and Figures

CITY OF MADERA
STORM DRAIN RATE STUDY
Financial Plan and Reserve Projections

Financial Plan & Reserve Summary

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY ¹	Projected					FY 2026/27
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	
Sources of Storm Drain Funds						
Rate Revenue:						
Drainage User Fees	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179
Revenue from Rate Increases	-	\$ 100,227	\$ 215,488	\$ 348,038	\$ 500,470	\$ 675,768
Subtotal: Rate Revenue After Rate Increases	\$ 668,179	\$ 768,406	\$ 883,667	\$ 1,016,217	\$ 1,168,649	\$ 1,343,947
Non-Rate Revenue:						
Fines & Forfeiture	12,287	12,287	12,287	12,287	12,287	12,287
Refunds	155	155	155	155	155	155
Other Revenue	-	-	-	-	-	-
Interest Income	14,925	13,414	9,479	6,962	6,183	7,511
Subtotal: Non-Rate Revenue	\$ 27,367	\$ 25,856	\$ 21,921	\$ 19,404	\$ 18,625	\$ 19,953
Total Sources of Funds	\$ 695,546	\$ 794,262	\$ 905,588	\$ 1,035,621	\$ 1,187,274	\$ 1,363,900
Uses of Storm Drainage Funds						
Operating Expenses						
Salaries & Benefits	\$ 370,600	\$ 389,100	\$ 408,400	\$ 428,600	\$ 450,000	\$ 472,400
Materials & Services	127,500	132,700	138,100	143,700	149,500	155,600
Interfund Charges	152,400	154,000	155,600	157,300	159,000	160,800
Special Payments	73,100	76,800	80,600	84,600	88,800	93,200
Transfer Out	53,200	53,200	53,200	53,200	53,200	53,200
Subtotal: Operating Expenses	\$ 776,800	\$ 805,800	\$ 835,900	\$ 867,400	\$ 900,500	\$ 935,200
Other Expenditures:						
Existing Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Debt Service	-	-	-	-	-	-
Rate-Funded Capital Expenses	-	-	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763
Subtotal: Other Expenditures	\$ 776,800	\$ 805,800	\$ 1,040,900	\$ 1,077,525	\$ 1,115,878	\$ 1,155,963
Total Uses of Storm Drainage Funds	\$ 81,254	\$ (11,538)	\$ (135,312)	\$ (41,904)	\$ 71,396	\$ 207,937
Annual Surplus/(Deficit)	\$ (81,254)	\$ (11,538)	\$ (135,312)	\$ (41,904)	\$ 71,396	\$ 207,937
Net Revenue Req't. (Total Uses less Non-Rate Revenue)	\$ 749,433	\$ 779,944	\$ 1,018,979	\$ 1,058,121	\$ 1,097,253	\$ 1,136,010
Projected Annual Rate Revenue Adjustment	0.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Cumulative Increase from Annual Revenue Increases	0.00% N/A	15.00% N/A	32.25% N/A	52.09% N/A	74.90% N/A	101.14% N/A
Debt Coverage After Rate Increase						

1. Revenue and expenses for FY 2019/20 through FY 2020/21 are from source file: Enterprise Funds Budget 2020-21.pdf, pages 56-58.

CITY OF MADERA
STORM DRAIN RATE STUDY
Financial Plan and Reserve Projections

Financial Plan & Reserve Summary

TABLE 2 : RESERVE FUND SUMMARY

		5-Year Rate Period				
SUMMARY OF CASH ACTIVITY		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26
UN-RESTRICTED RESERVES		Projected	Projected	Projected	Projected	FY 2026/27
Total Beginning Cash^{1,2}						
Storm Drainage Operating Reserve Fund						
Beginning Reserve Balance ¹	\$ 184,761	\$ 103,507	\$ 91,969	\$ (43,343)	\$ (85,247)	\$ (13,851)
Plus: Net Cash Flow (After Rate Increases)	(81,254)	(11,538)	(135,312)	(41,904)	71,396	207,937
Less: Transfer Out to Capital Replacement Reserve	-	-	-	-	-	-
Ending Operating Reserve Balance	\$ 103,507	\$ 91,969	\$ (43,343)	\$ (85,247)	\$ (13,851)	\$ 194,086
Target Ending Balance (90-days of O&M)³	\$ 191,540	\$ 198,690	\$ 206,112	\$ 213,879	\$ 222,041	\$ 230,597
Capital Outlay Reserve Fund						
Beginning Reserve Balance	\$ 617,661	\$ 617,661	\$ 417,661	\$ 417,661	\$ 417,661	\$ 417,661
Plus: Transfer of Operating Reserve Surplus	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	(200,000)	-	-	-	-
Ending Capital Rehab & Replacement Reserve Balance	\$ 617,661	\$ 417,661				
Target Ending Balance (3% of Net Assets)⁴	\$ 532,200	\$ 525,400	\$ 518,900	\$ 512,700	\$ 506,900	\$ 501,400
Ending Balance	\$ 721,169	\$ 509,630	\$ 374,318	\$ 332,414	\$ 403,810	\$ 611,747
Minimum Target Ending Balance	\$ 723,740	\$ 724,090	\$ 725,012	\$ 726,579	\$ 728,941	\$ 731,997
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ (2,571)	\$ (214,460)	\$ (350,694)	\$ (394,165)	\$ (325,131)	\$ (120,250)
Annual Interest Earnings Rate⁵		1.86%	1.86%	1.86%	1.86%	1.86%

1. Revenue and expenses for FY 2019/20 through FY 2020/21 are from source file: Enterprise Funds Budget 2020-21.pdf, pages 56-58.

2. Beginning cash balance for the Storm Drainage Fund is found in Source File: Storm Drainage Ent WTB 6_30_20.pdf, Pooled Cash.

3. NBS Recommends setting the Operating Reserve Fund target at 90 days of operating and maintenance expenses.

4. NBS recommends setting the Capital Outlay Reserve to a minimum of 3% of net assets.

5. City's actual or budgeted interest earnings are used in analysis for unrestricted reserves in FY 2020/21. For 2021/22 and beyond, interest earning rates are estimated at the 3-year average (FY '17/18 - '19/20) for funds invested in LAIF, per the California Treasurer's Office website, for the restricted reserves.

Source: <https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp>.

CHART 1

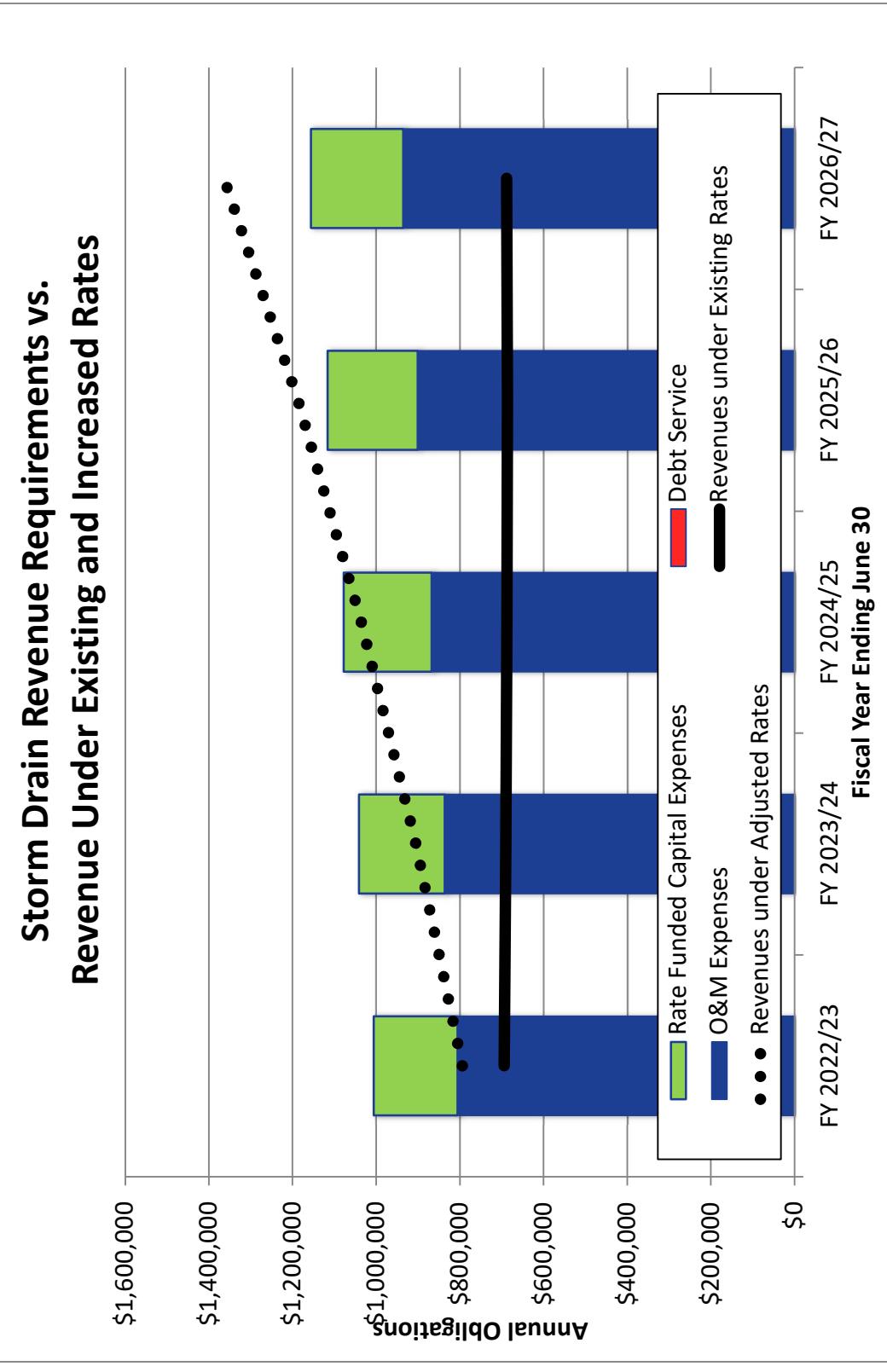
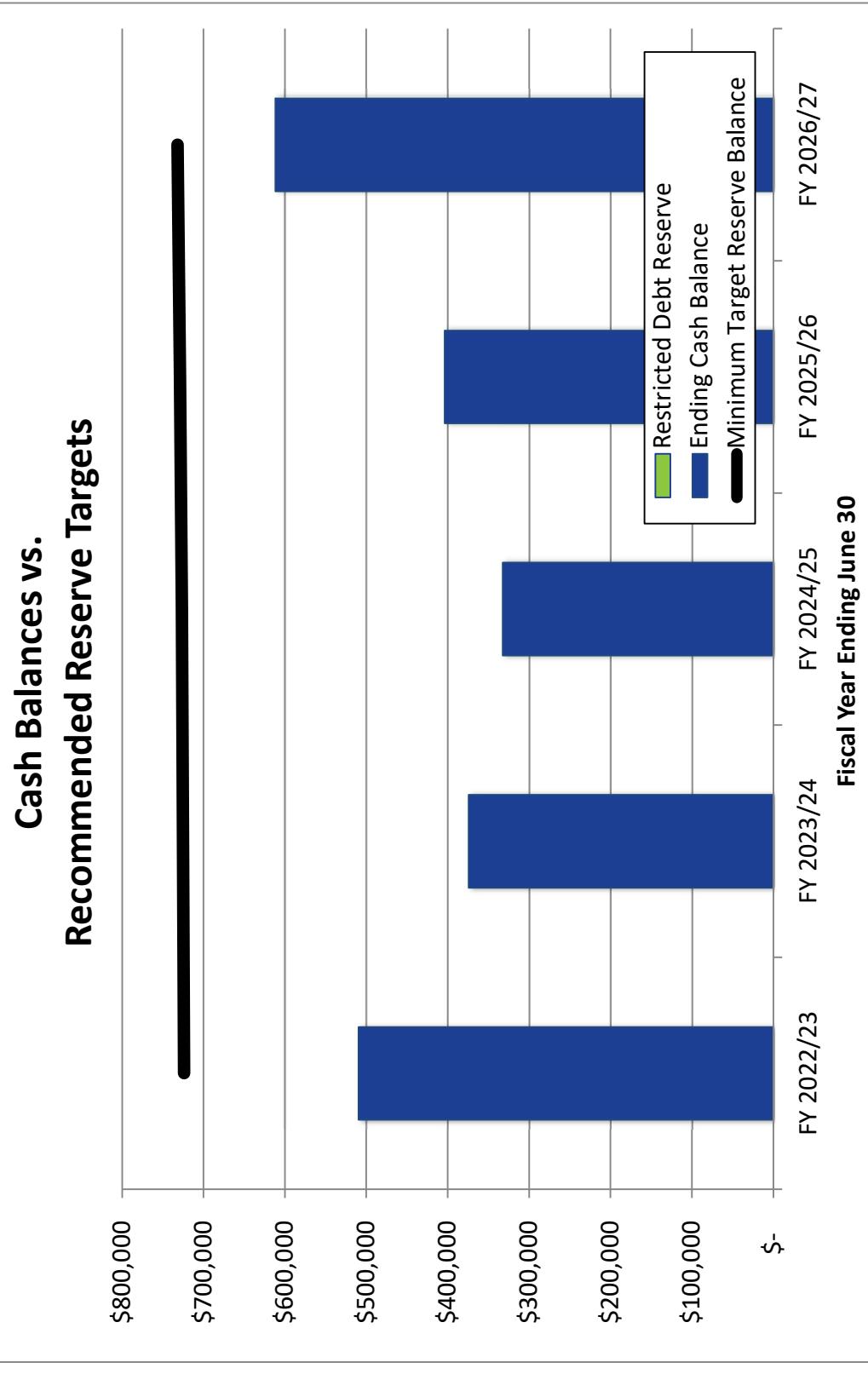
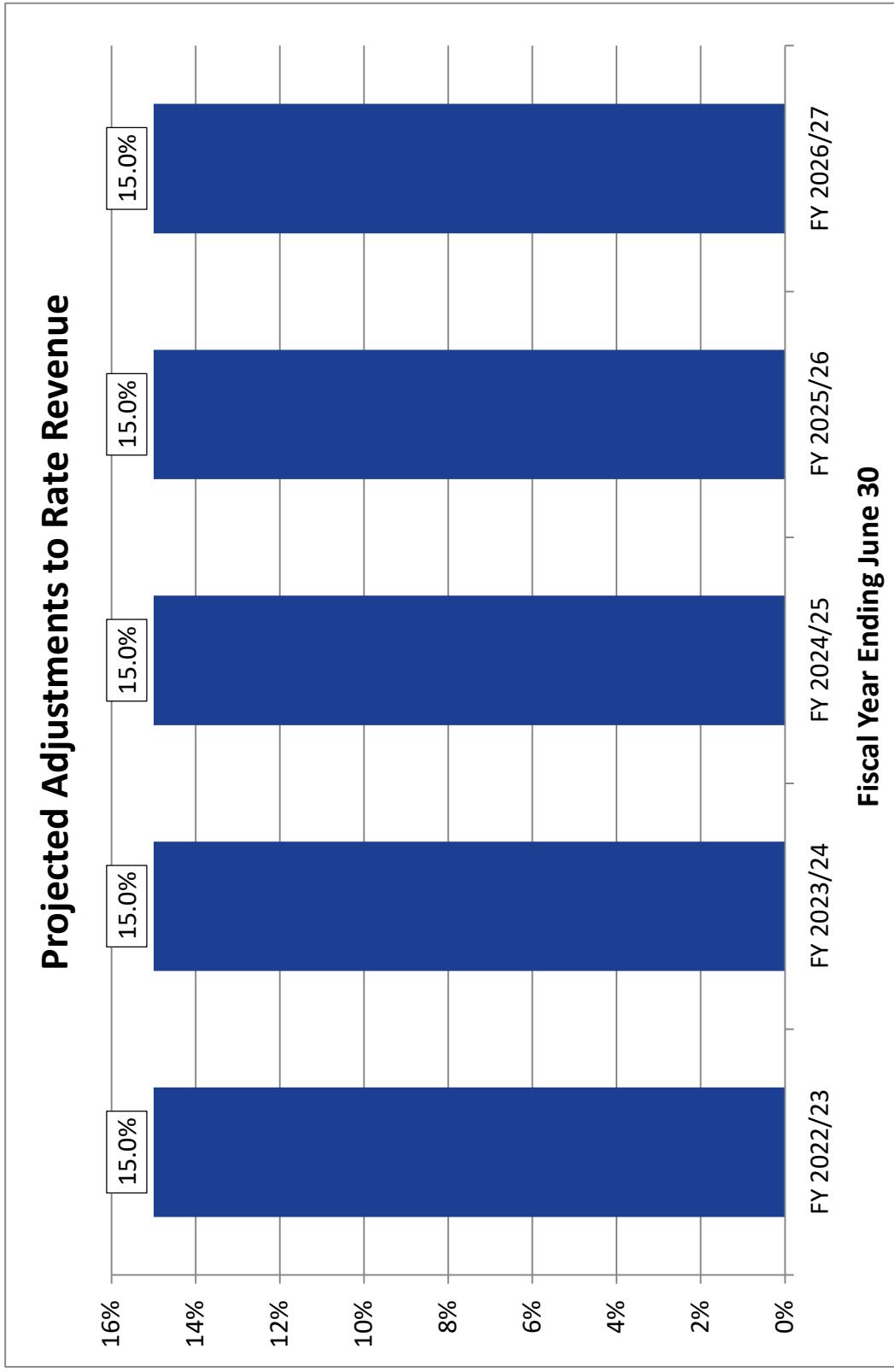


CHART 2



CITY OF MADERA
STORM DRAIN RATE STUDY
Rate Adjustment Charts and Report Tables

CHART 3



CITY OF MADERA
STORM DRAIN RATE STUDY
Operating Revenue and Expenses

EXHIBIT 1

TABLE 3 : REVENUE FORECAST¹

SOURCES OF REVENUE		Basis	2022	2023	2024	2025	2026	2027	Prop 218 Rate Period
DRAINAGE OPERATIONS									
Fines & Forfeiture			\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287
Late Payment/Other Penalty	1	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287	\$ 12,287
Subtotal									
Charges for Services									
Drainage User Fees	1	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179
Subtotal		\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179
Interest									
Interest Income ²	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interfund Charges									
Interfund Charges Revenue - Co	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Gains & Proceeds									
Sale of Real & Personal Property	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Refunds									
Collection Recovery	1	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155
Subtotal		\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155	\$ 155
DRAINAGE FLOOD CONTROL									
Gains & Proceeds									
Sale of Real & Personal Property	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DRAINAGE CAPITAL OUTLAY									
Non-Cash Capital Contribution									
Capital Contribution	Exh. 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL: REVENUE		\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621

CITY OF MADERA
STORM DRAIN RATE STUDY
Operating Revenue and Expenses

EXHIBIT 1

TABLE 4 : REVENUE SUMMARY

		Prop 218 Rate Period				
RATE REVENUE:		\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179	\$ 668,179
Drainage User Fees		12,287	12,287	12,287	12,287	12,287
OTHER REVENUE:		155	155	155	155	155
Fines & Forfeiture		-	-	-	-	-
Refunds		-	-	-	-	-
Gains & Proceeds		-	-	-	-	-
Other Revenue		-	-	-	-	-
Interest Income		-	-	-	-	-
TOTAL: REVENUE		\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621	\$ 680,621

TABLE 5 : OPERATING EXPENSE FORECAST¹

		Prop 218 Rate Period				
DESCRIPTION		Basis	2022	2023	2024	2025
<u>DRAINAGE OPERATIONS</u>						
<u>Interfund Charges</u>						
Facility Maintenance	4	\$ 49,300	\$ 50,800	\$ 52,300	\$ 53,900	\$ 55,500
Admin Ove.	4	\$ 2,100	\$ 2,200	\$ 2,300	\$ 2,400	\$ 2,500
Subtotal		\$ 51,400	\$ 53,000	\$ 54,600	\$ 56,300	\$ 58,000
<u>Transfer Out</u>						
Transfer Out - Insurance Rese.	7	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
Subtotal		\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
Sub-Total: Drainage Operations		\$ 96,400	\$ 98,000	\$ 99,600	\$ 101,300	\$ 103,000
<u>Depreciation (Non-cash item left out of analysis)³</u>						
Depreciation/Replacement	7	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600
Subtotal		\$ 600	\$ 600	\$ 600	\$ 600	\$ 600

CITY OF MADERA
STORM DRAIN RATE STUDY
Operating Revenue and Expenses

EXHIBIT 1

TABLE 6 : OPERATING EXPENSE FORECAST¹

DESCRIPTION	Basis	Prop 218 Rate Period				
		2022	2023	2024	2025	2026
DRAINAGE FLOOD CONTROL						
Salaries & Benefits						
Salaries / Full-Time	2 \$ 207,300	\$ 217,700	\$ 228,600	\$ 240,000	\$ 252,000	\$ 264,600
Salaries / Part-Time	2 -	-	-	-	-	-
Salaries / Overtime	2 6,300	6,600	6,900	7,200	7,600	8,000
Salaries / Leave Payout	2 -	-	-	-	-	-
Public Employees Retirement	3 27,100	28,500	29,900	31,400	33,000	34,700
Long Term Disability Insurance	3 700	700	700	700	700	700
Life Insurance Premiums	3 300	300	300	300	300	300
Workers Compensation Insurance	3 20,300	21,300	22,400	23,500	24,700	25,900
Medicare Tax - Employer's Share	3 3,200	3,400	3,600	3,800	4,000	4,200
Unfunded Accrued Liability	3 56,100	58,900	61,800	64,900	68,100	71,500
Deferred Compensation/Part-Time	3 -	-	-	-	-	-
Deferred Compensation/Full-Time	3 7,100	7,500	7,900	8,300	8,700	9,100
Unemployment Insurance	3 900	900	900	900	900	900
Section 125 Benefit Allowance	3 40,700	42,700	44,800	47,000	49,400	51,900
Subtotal	\$ 370,600	\$ 389,100	\$ 408,400	\$ 428,600	\$ 450,000	\$ 472,400
Materials & Services						
Gas & Electric Utilities	6 \$ 52,500	\$ 55,100	\$ 57,900	\$ 60,800	\$ 63,800	\$ 67,000
Vehicle Fuel, Supplies & Maintenance	5 \$ 13,100	\$ 13,800	\$ 14,500	\$ 15,200	\$ 16,000	\$ 16,800
Contracted Services	4 \$ 15,500	\$ 16,000	\$ 16,500	\$ 17,000	\$ 17,500	\$ 18,000
Taxes & Assessments	4 \$ 22,700	\$ 23,400	\$ 24,100	\$ 24,800	\$ 25,500	\$ 26,300
Maintenance/Other Supplies	4 \$ 23,700	\$ 24,400	\$ 25,100	\$ 25,900	\$ 26,700	\$ 27,500
Subtotal	\$ 127,500	\$ 132,700	\$ 138,100	\$ 143,700	\$ 149,500	\$ 155,600
Interfund Charges						
Interfund Charge - Central Su.	7 \$ 3,300	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,300	\$ 3,300
Interfund Charge - Admin. Overhead	7 \$ 38,300	\$ 38,300	\$ 38,300	\$ 38,300	\$ 38,300	\$ 38,300
Interfund Charge - Vehicle Replacement	7 \$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Interfund Charge - Vehicle Maintenance	7 \$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000
Interfund Charge - Comp. Maintenance	7 \$ 11,500	\$ 11,500	\$ 11,500	\$ 11,500	\$ 11,500	\$ 11,500
Interfund Charge - Computer	7 \$ 2,600	\$ 2,600	\$ 2,600	\$ 2,600	\$ 2,600	\$ 2,600
Interfund Charge - Software	7 \$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300
Subtotal	\$ 101,000	\$ 101,000	\$ 101,000	\$ 101,000	\$ 101,000	\$ 101,000
Special Payments						
Pension Expense-GASB 68	3 \$ 73,100	\$ 76,800	\$ 80,600	\$ 84,600	\$ 88,800	\$ 93,200
Subtotal	\$ 73,100	\$ 76,800	\$ 80,600	\$ 84,600	\$ 88,800	\$ 93,200
Transfer Out						
Transfer Out - Insurance Rese.	7 \$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200
Subtotal	\$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200	\$ 8,200
Sub-Total: Drainage Flood Control	\$ 680,400	\$ 707,800	\$ 736,300	\$ 766,100	\$ 797,500	\$ 830,400

CITY OF MADERA
STORM DRAIN RATE STUDY
Operating Revenue and Expenses

EXHIBIT 1

TABLE 7 : OPERATING EXPENSE FORECAST¹

DESCRIPTION		Basis	2022	2023	2024	2025	2026	2027	Prop 218 Rate Period
DRAINAGE CAPITAL OUTLAY									
Capital Outlay		7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Construction/Infrastructure			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal									
Sub-Total: Drainage Capital Outlay			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation (Non-cash item left out of analysis)³									
Depreciation/Replacement		7	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900
Subtotal			\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900	\$ 328,900
GRAND TOTAL: STORM DRAIN OPERATING EXPENSES			\$ 776,800	\$ 805,800	\$ 835,900	\$ 867,400	\$ 900,500	\$ 935,200	

TABLE 8 : FORECASTING ASSUMPTIONS

INFLATION FACTORS ⁴		Basis	2022	2023	2024	2025	2026	2027
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Salaries	2	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Benefits	3	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
General Inflation	4	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Fuel	5	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Electricity	6	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
No Escalation	7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2019/20 through FY 2020/21 are from source file: *Enterprise Funds Budget 2020-21.pdf*, pages 56-58.

2. Interest income is calculated in the Financial Plan and excluded from this table.

3. Depreciation expense is not considered in this projection since it is not a cash expense.

4. Inflation values follow assumptions made in water and sewer rate study from 2015.

Source file: *Rate Study 2015.pdf*, Table 1-1, Page 12.

CITY OF MADERA
STORM DRAIN RATE STUDY
Capital Improvement Plan Expenditures

EXHIBIT 2

TABLE 9 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST		Projected					5-Year Rate Period	
Funding Sources:		FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Capacity Fee Reserves	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SRF Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of New Revenue Bond Proceeds	\$ -	\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763	\$ -	\$ -
Use of Capital Rehabilitation and Replacement Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Sources of Capital Funds	\$ -	\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763		
Uses of Capital Funds:								
Total Project Costs	\$ -	\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763		
Capital Funding Surplus (Deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
Bank Loan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
New Revenue Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		

CAPITAL IMPROVEMENT PROGRAM

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (current-year dollars)

Project #	Storm Drain System Improvements	2022	2023	2024	2025	2026	2027
RSW10A	30" SD Pipe in Lake Street from Clark to Wessmith	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
RSW06	30" SD Pipe in Lake Street from 80' north of Kennedy to Clark	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
	Future Projects						
Total: CIP Program Costs (Current-Year Dollars)		\$ -	\$ 200,000				

TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (future-year dollars)

Project Description	2022	2023	2024	2025	2026	2027
RSW10A	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
RSW06	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
- Future Projects						
Total: CIP Program Costs (Future-Year Dollars)		\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763

TABLE 12 : FORECASTING ASSUMPTIONS

Economic Variables	2022	2023	2024	2025	2026	2027
Annual Construction Cost Inflation, Per Engineering News Record ¹	0.00%	0.00%	2.50%	2.50%	2.50%	2.50%
Cumulative Construction Cost Multiplier from 2021	1.00	1.00	1.03	1.05	1.08	1.10
1. Construction inflator is based on the most current 10 year average of the Engineering News-Record Construction Cost Index.						
Source: www.enr.com/economics (August 2010 to August 2020).						

CITY OF MADERA
STORM DRAIN RATE STUDY
 Storm Drain Rates Under Existing Rate Schedule

TABLE 13 : CURRENT STORM DRAINAGE RATE SCHEDULE

	Current Monthly Rates¹	Effective Dec. 21, 1992
Single Family Residential	<i>per month</i>	\$2.00
Multi Family Residential	<i>per square foot, maximum per month</i>	\$0.002 \$80.00
<i>Equal or less than 40 units</i>		
<i>Greater than 40 & equal or less than 80 units</i>		
<i>Greater than 81 units</i>		
Non-Residential (Except Churches)	<i>per square foot, maximum per month</i>	\$0.002 \$240.00
Non-Residential (Churches)	<i>per square foot of ground floor, maximum per month</i>	\$0.004 \$80.00

1. Monthly service fee per Resolution 92-120. Source file: *Drainage.pdf*

CITY OF MADERA
STORM DRAIN RATE STUDY
Storm Drain Cost of Service Analysis

Allocation Factors

TABLE 14

Customer Class	Number of Accounts ¹	Percent of Total	Square Footage Estimate	Percent of Total
Single Family Residential	13,585	94.4%	n/a	
Multi Family Residential	4	0.0%	938,745	14.5%
Non-Residential	799	5.6%	5,532,315	85.5%
Total	14,388	100.0%	6,471,060	100.0%

1. Number of accounts from Oct. 2020 & square footage estimate from source files:

*MAS Meter Usage 12 Months_Manipulated_02.06.21.xlsx
 2020 SEP-NOV MUNIS Billing2_Manipulated.xlsx, 2020 DEC MUNIS Billing_Manipulated.xlsx*

TABLE 15

Customer Class	2020 Revenue	Percent of Total
Single Family Residential	\$ 415,808	61.1%
Multi Family Residential	\$ 12,919	1.9%
Non-Residential	\$ 251,973	37.0%
Total	\$ 680,699	100%

1. 2020 revenue found in source files: *MAS Meter Usage 12 Months_Manipulated_02.06.21.xlsx, 2020 SEP-NOV MUNIS Billing2_Manipulated.xlsx, 2020 DEC MUNIS Billing_Manipulated.xlsx*

CITY OF MADERA
STORM DRAIN RATE STUDY
Storm Drain Cost of Service Analysis/Rate Design

Proposed Fixed Charges

TABLE 16 : SUMMARY OF RATE CALCULATION

Customer Classes	FY 2022/23 Net Revenue Requirement	Number of Accounts	Square Footage Estimate	By Account Monthly Charge	By Sq. Ft. Monthly Charge	Max Sq. Ft. Based on Current Rates	Max Monthly Rate
Proposed Storm Drain Monthly User Charges							
	<i>math formula a</i>	<i>b</i>	<i>c</i>	<i>d = b / a</i>	<i>e = c / a</i>	<i>f</i>	<i>g = f * e</i>
Single Family Residential	\$ 476,432	13,585	n/a	\$ 2.92	n/a	n/a	n/a
Multi Family Residential	\$ 14,802	4	938,745	\$ n/a	\$ 0.002	\$ 40,000	\$ 80.00
40 units to 80 units	-	-	-	n/a	\$ 0.002	\$ 80,000	\$ 160.00
Over 81 units	-	-	-	n/a	\$ 0.002	\$ 120,000	\$ 240.00
Non-Residential	\$ 288,710	799	5,532,315	n/a	\$ 0.005	\$ 20,000	\$ 100.00
Total Net Revenue Requirement	\$ 779,944	14,388	6,471,060				

CITY OF MADERA
STORM DRAIN RATE STUDY
Storm Drain Cost of Service Analysis/Rate Design

Current & Proposed Rates

TABLE 17 : CURRENT VS. PROPOSED STORM DRAIN RATES

Storm Drain Rate Schedule		Current Rates	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	Proposed Rates
<i>Proposed Monthly Usage Charge</i>								
Single Family Residential	<i>per month</i>	\$2.00	\$2.92	\$3.36	\$3.87	\$4.44	\$5.11	
Multi Family Residential	<i>per square foot,</i> <i>maximum per month</i>	\$0.002 \$80.00	\$0.002 \$80.00	\$0.003 \$92.00	\$0.004 \$106.00	\$0.005 \$122.00	\$0.006 \$140.00	
<i>Equal or less than 40 units</i>								
<i>Greater than 40 & equal or less than 80 units</i>								
<i>Greater than 81 units</i>	<i>per square foot,</i> <i>maximum per month</i>	\$0.002 \$160.00	\$0.002 \$160.00	\$0.003 \$184.00	\$0.004 \$212.00	\$0.005 \$244.00	\$0.006 \$281.00	
Non-Residential (Including Churches)	<i>per square foot of ground floor,</i> <i>maximum per month</i>	\$0.004 \$80.00	\$0.005 \$100.00	\$0.006 \$115.00	\$0.007 \$132.00	\$0.009 \$152.00	\$0.011 \$175.00	

Single-Family Residential Storm Drain Bill Comparison Current vs. Proposed Monthly Rates

