

CITY OF MAPLE PLAIN, MINNESOTA
2022 - 2026 UTILITY RATE STUDY

Prepared by AEM Financial Solutions, LLC

City of Maple Plain, Minnesota
2022 - 2026 Utility Rate Study Memo
Table of Contents

	<u>Page No.</u>
<u>Introductory Section</u>	
Assumptions	4
Historical Information	5
Goals and Rate Changes	6
Cash Balance and Operations Summary	7
Average Quarterly Bills	10
Comparison to other Cities	15
<u>Financial Section</u>	
Scenario 1	
Water Fund	
Cash Flow Projections - Detailed	17
Sewer Fund	
Cash Flow Projections - Detailed	18
Stormwater Fund	
Cash Flow Projections - Detailed	19
Rate Schedule	
Scenario 2	
Water Fund	
Cash Flow Projections - Detailed	20
Sewer Fund	
Cash Flow Projections - Detailed	21
Stormwater Fund	
Cash Flow Projections - Detailed	22
Rate Schedule	
Debt Payment Schedule	23

INTRODUCTORY SECTION

City of Maple Plain, MINNESOTA
2022 - 2026 UTILITY RATE STUDY



AEM Financial Solutions™

Honorable Mayor and City Council
City of Maple Plain

Introduction

We have prepared the attached 2022 - 2026 Utility Rate Study for the City that is intended to give a big picture view of the financial status of the Water, Sewer and Stormwater Enterprise funds as they stand currently and how forecasted assumptions will change things five years from now. We have not examined the projection and do not express an opinion or any other form of assurance on the accompanying schedules or assumptions. Furthermore, there will usually be differences between the forecasted and actual results because events and circumstances frequently do not occur as expected and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report. The City's assumptions made are as follows:

Assumptions - Forecasting

- The 2021 budget along with 2021 rates and growth assumptions were used for projecting 2021 activity. For cashflow purposes, some modifications were made for debt requirements, capital purchases, and transfers reviewed with management.
- Normal operating expenses will increase by a 3.0 percent inflation rate from amounts budgeted in 2021.
- Municipal Wastewater Charges will increase by a 4.0 percent inflation rate from 2022 amounts provided by Metropolitan Council.
- Interest earned on cash held in the City's name is assumed to earn interest at a rate of 1.0 percent.
- Capital Assumptions:
 - Various utility infrastructure projects are planned for 2021, 2024, 2027 and 2030. The utility portion of the infrastructure projects are expected to be funded with the issuances of 15 year Utility Revenue Bonds.
 - Capital equipment and other capital maintenance are assumed to be purchased with cash reserves. The Water and Sewer funds have planned \$20,000 annually for capital equipment and maintenance.

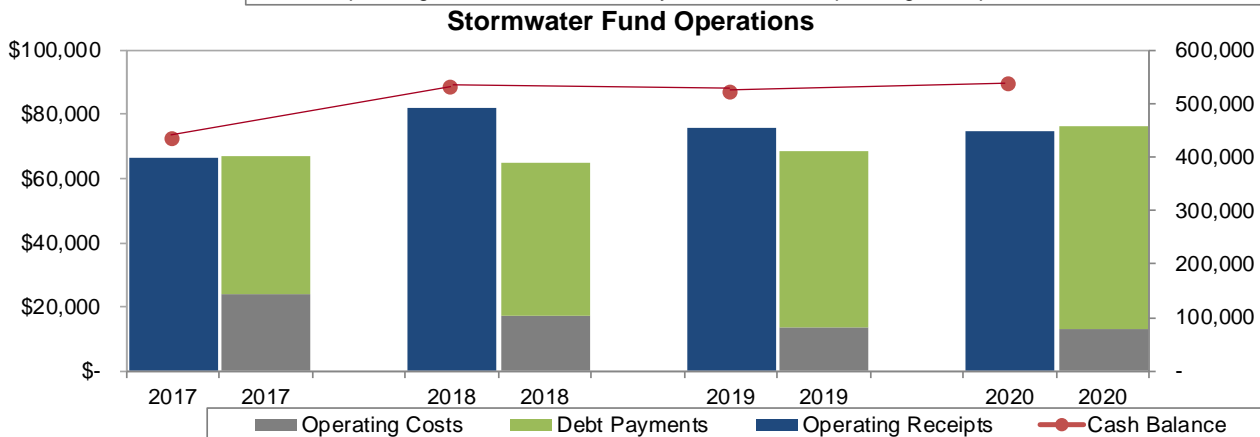
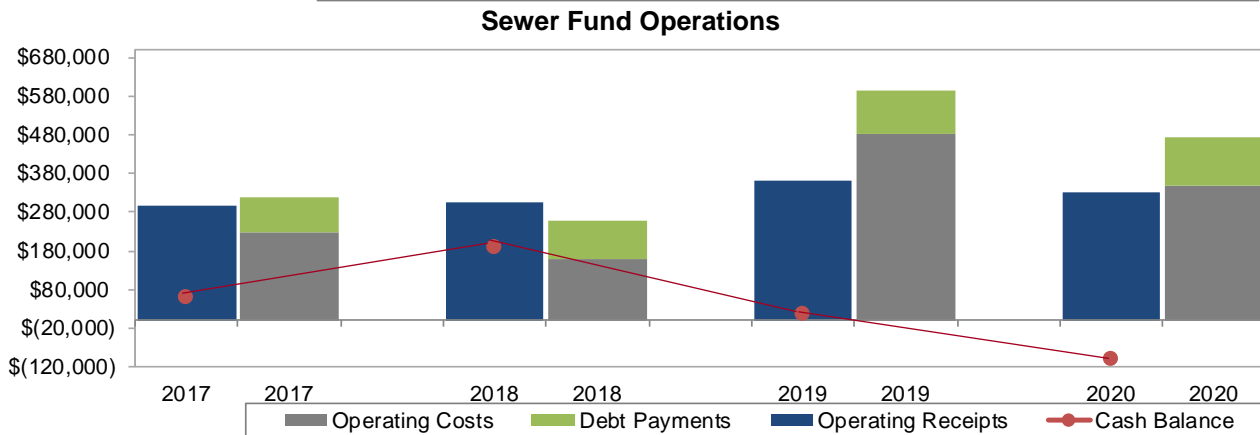
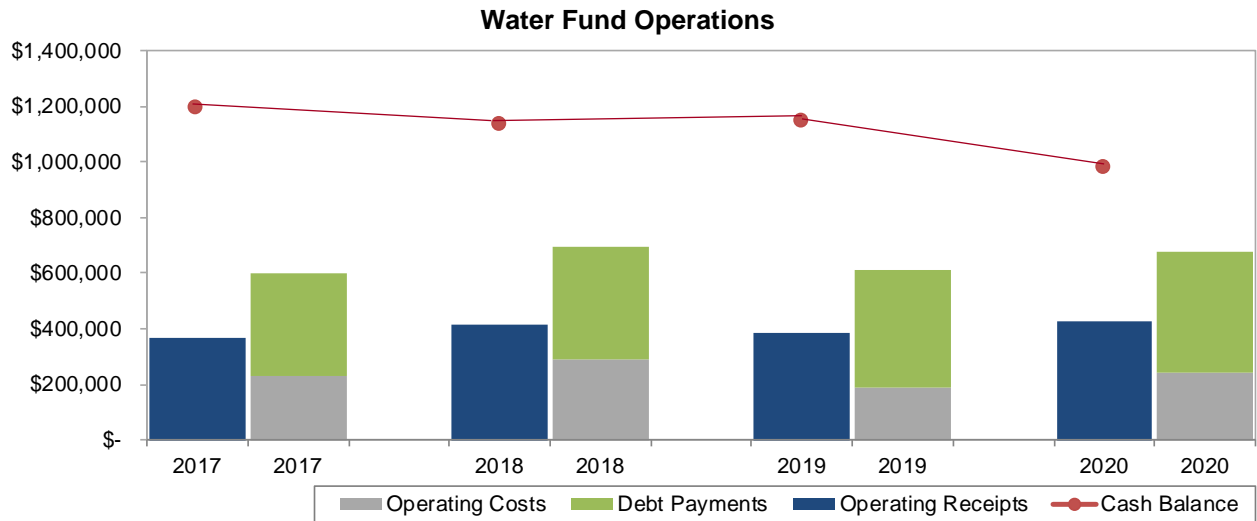
Assumptions - Other

- New connections are anticipated to increase at 1 percent per year through the life of the plan.
- For illustrative purposes, average quarterly bills are presented on pages 10 - 14. Average usage for residential and commercial users has been derived from 2020 actual usage with calculated outliers excluded from the average calculation. See the tables on page 10 -14 for the average usage per quarter.
- The target reserve balance is calculated by taking 100% of the following years debt payments and 50% of operating expenses.
- The City of Medina is billed for water services provided outside of the City. The outside city charges have been projected based on the total 2020 annual amount billed times the projected increase in usage rates.

Historical Information

- Utility rates have remained unchanged for several years. The most recent rate increases are noted below:
 - In 2011, the water fixed fee was increased 5% and the water treatment plant fee was increased 25%.
 - In 2012, the sewer fixed fee was increased 23%
- Significant utility infrastructure capital activity has resulted in a steady increase of debt obligations payable from utility charges. Current debt obligations relate to the following capital projects:
 - Large Infrastructure projects were completed in 2013, 2014, 2016 and 2018.
 - The Water Treatment Plant was constructed in 2009.

The following charts offer a historical review of cash provided from utility operations. The gap between operating receipts, blue, and operating costs plus debt payments, gray and green, represents the use of cash reserves. Operating receipts do not include connection fees.



Goals and Rate Changes

In the financial section, two scenarios are presented. Below is a summary of the projected rate increases and established goals for each scenario.

Scenario 1					
Goal: Positive cash balances by 2026 and minimum target reserve balance by 2030					
	<i>Proposed</i> 2022	<i>Proposed</i> 2023	<i>Proposed</i> 2024	<i>Proposed</i> 2025	<i>Proposed</i> 2026
Water Rates					
<i>Proposed Rate Charge - Usage</i>	25.0%	15.0%	10.0%	5.0%	3.0%
<i>Proposed Rate Charge - Fixed</i>	25.0%	15.0%	10.0%	5.0%	3.0%
Sewer Rates					
<i>Proposed Rate Charge - Usage</i>	20.0%	12.0%	10.0%	5.0%	3.0%
<i>Proposed Rate Charge - Fixed</i>	20.0%	12.0%	10.0%	5.0%	3.0%
Storm Water Rates					
<i>Proposed Rate Charge - Fixed</i>	25.0%	15.0%	15.0%	10.0%	5.0%
Scenario 2					
Goal: Positive cash balances by 2030					
	<i>Proposed</i> 2022	<i>Proposed</i> 2023	<i>Proposed</i> 2024	<i>Proposed</i> 2025	<i>Proposed</i> 2026
Water Rates					
<i>Proposed Rate Charge - Usage</i>	15.0%	12.0%	10.0%	5.0%	3.0%
<i>Proposed Rate Charge - Fixed</i>	15.0%	12.0%	10.0%	5.0%	3.0%
Sewer Rates					
<i>Proposed Rate Charge - Usage</i>	15.0%	10.0%	10.0%	5.0%	3.0%
<i>Proposed Rate Charge - Fixed</i>	15.0%	10.0%	10.0%	5.0%	3.0%
Storm Water Rates					
<i>Proposed Rate Charge - Fixed</i>	15.0%	10.0%	10.0%	10.0%	10.0%

The first scenario proposes rate increases sufficient to generate a positive cash balance in the Water and Sewer fund by the year 2026 and meet minimum target cash balance projections by 2030.

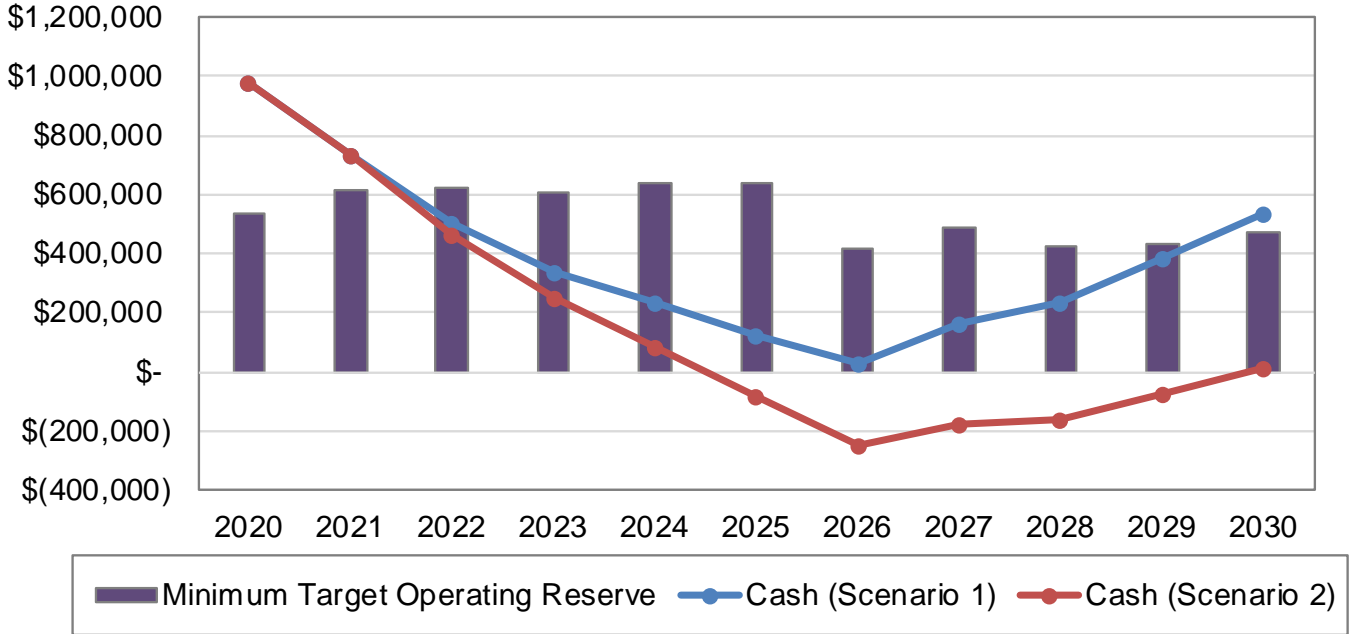
The second scenario proposes rate increases sufficient to generate a positive cash balance in the Water and Sewer fund by the year 2030.

Cash Balance and Operations Projections

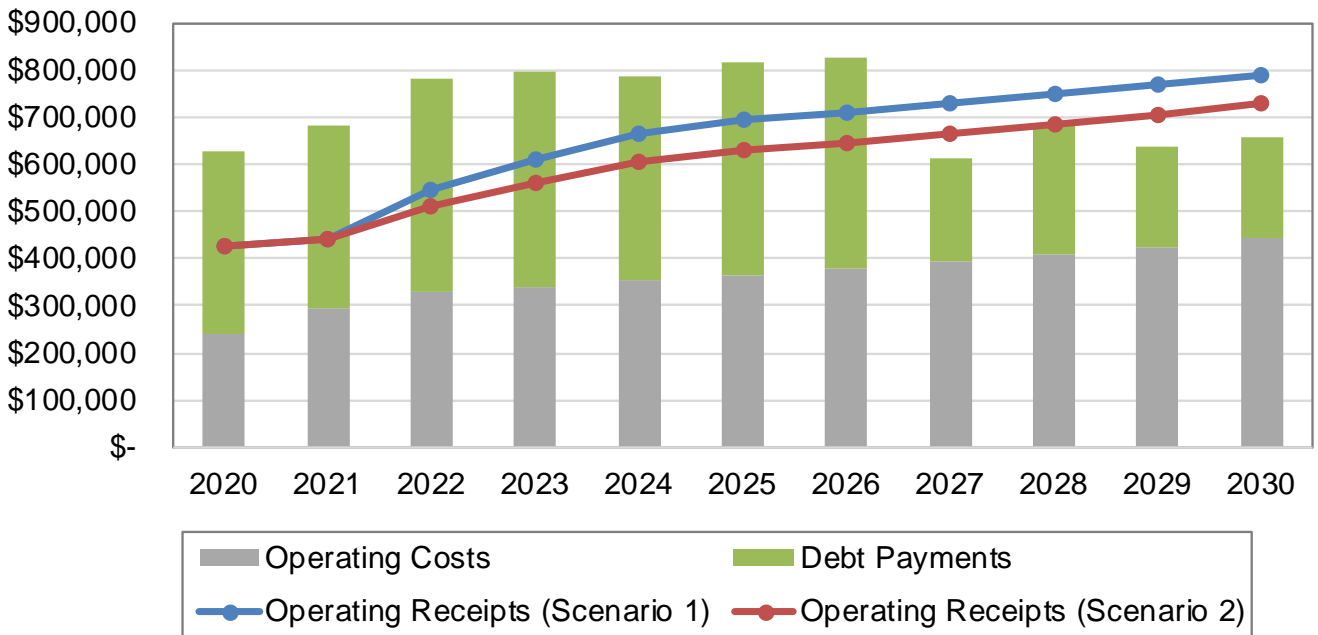
Based on the projected rate increases, below are the projected cash balance and operating results.

Water

Water Fund Cash Balances



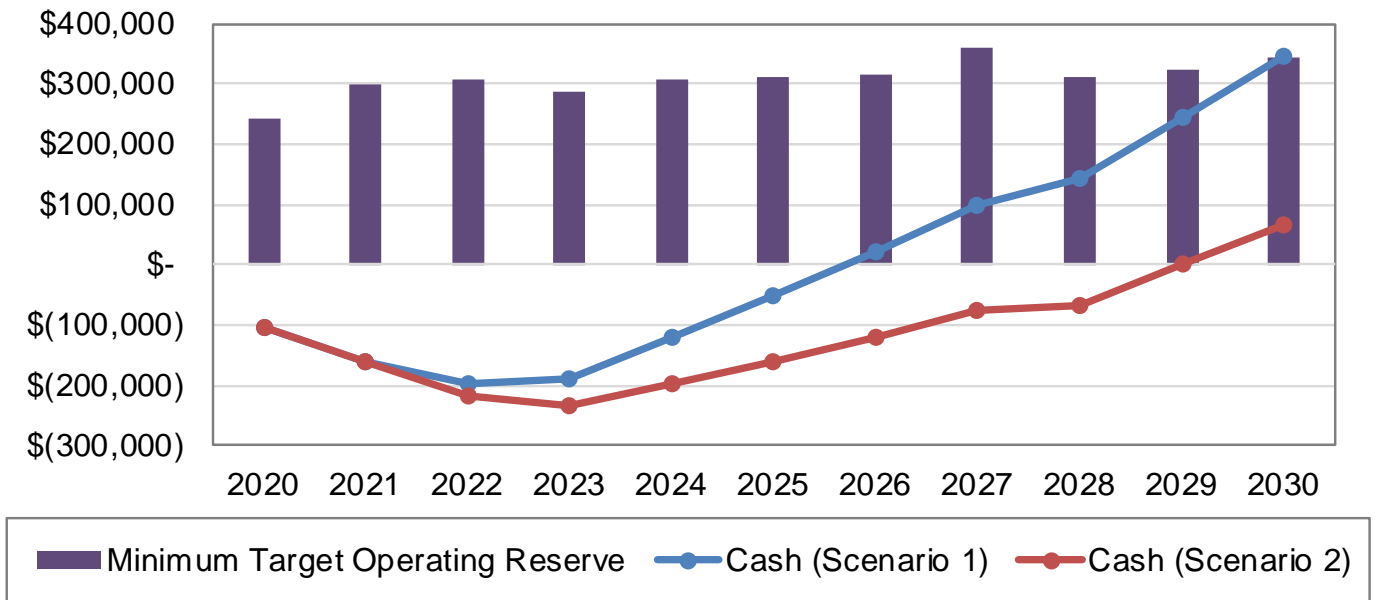
Water Fund Operations



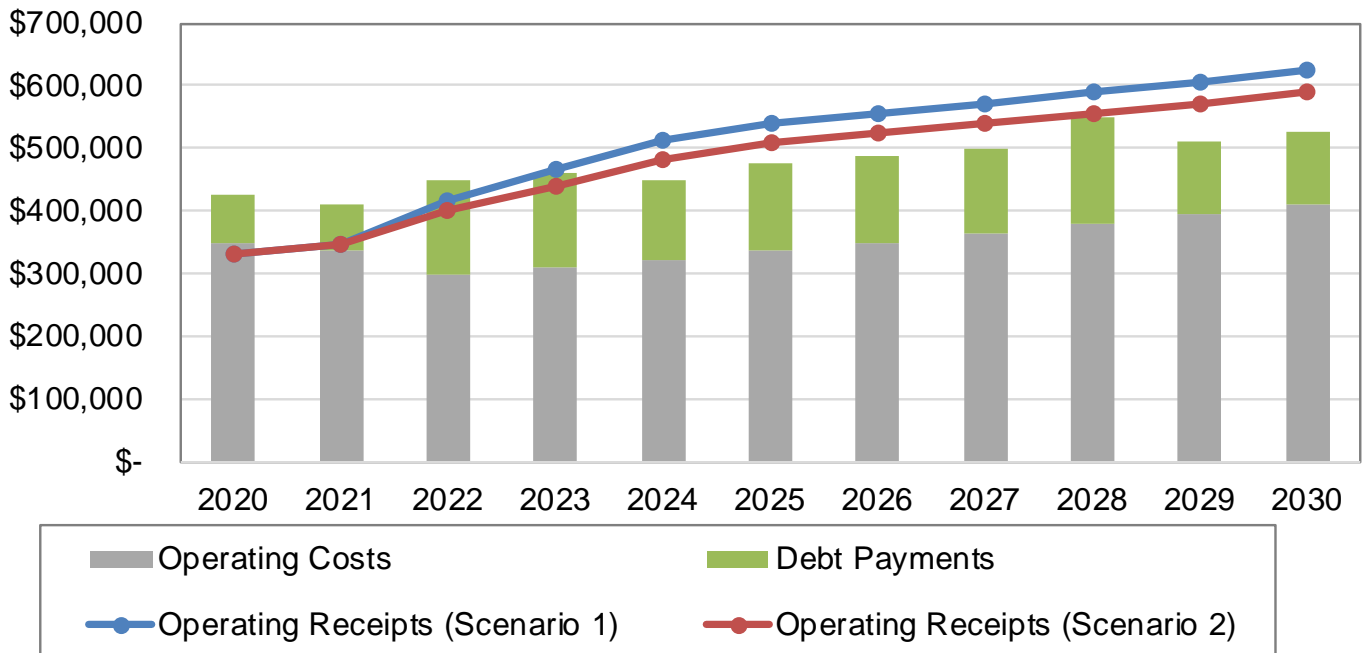
Cash Balance and Operations Projections – (Continued)

Sewer

Sewer Fund Cash Balances



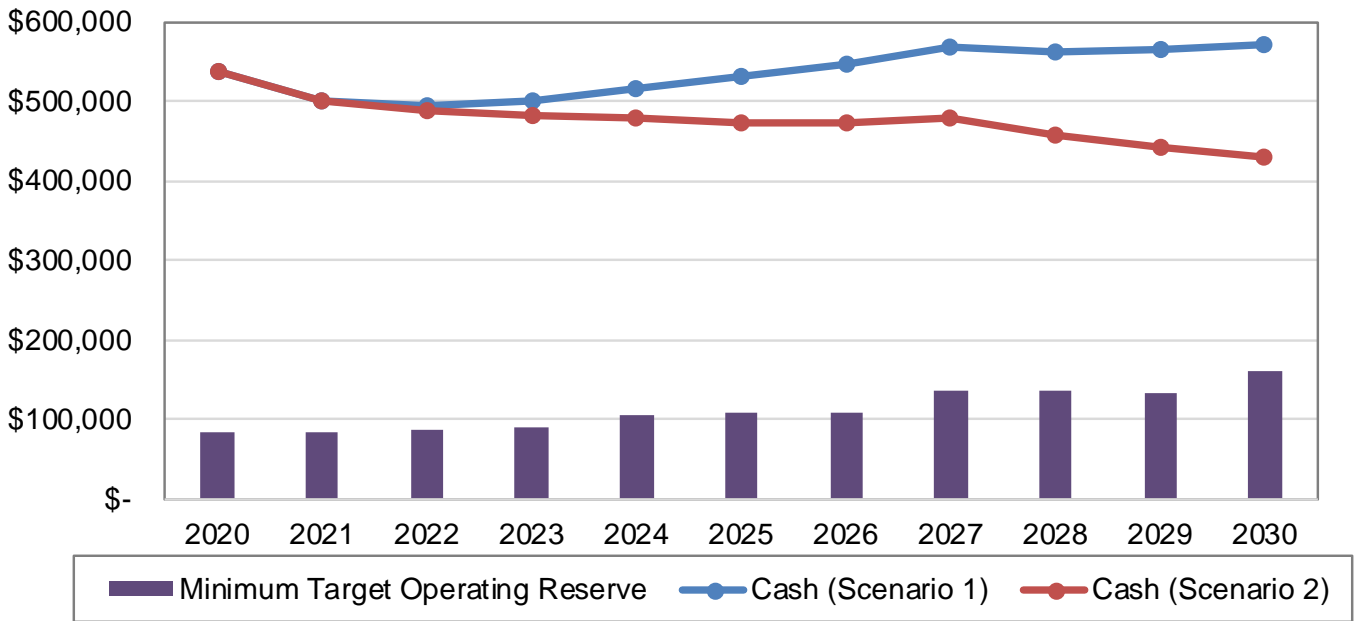
Sewer Fund Operations



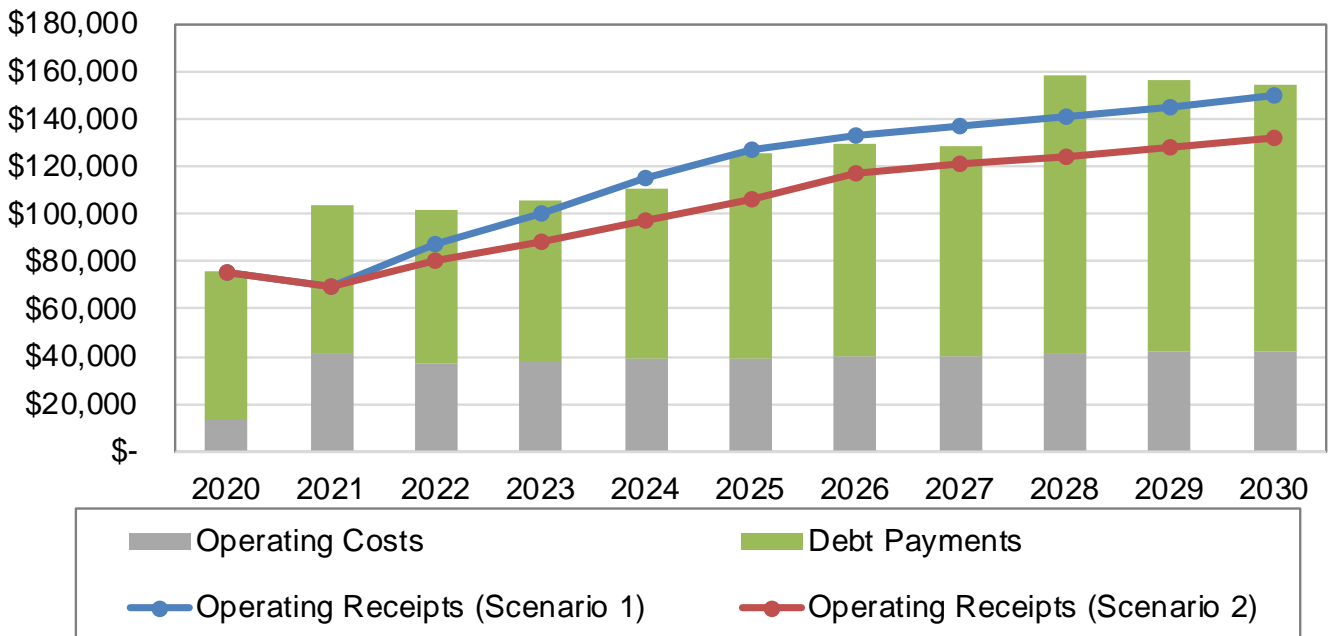
Cash Balance and Operations Projections – (Continued)

Stormwater

Stormwater Fund Cash Balances



Stormwater Fund Operations



Average Quarterly Bills

The tables below illustrate the average bill for residential and commercial costumers and the projected average quarterly and annual change.

Average Utility Bill (Scenario 1)							
Water							
Category	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
	Average Bill 9,400 Avg. Gallons	Average Bill 12,700 Avg. Gallons	Average Bill 11,700 Avg. Gallons	Average Bill 10,500 Avg. Gallons			
Residential							
Current (2021)	\$ 87.57	\$ 107.54	\$ 101.34	\$ 94.16	\$ 390.60	N/A	N/A
2022	\$ 103.21	\$ 128.17	\$ 120.43	\$ 111.44	\$ 463.25	\$ 18.16	\$ 72.65
2023	\$ 114.94	\$ 143.65	\$ 134.74	\$ 124.41	\$ 517.74	\$ 13.62	\$ 54.49
2024	\$ 123.93	\$ 155.51	\$ 145.72	\$ 134.35	\$ 559.51	\$ 10.44	\$ 41.77
2025	\$ 128.88	\$ 162.04	\$ 151.75	\$ 139.82	\$ 582.49	\$ 5.74	\$ 22.98
2026	\$ 132.00	\$ 166.15	\$ 155.56	\$ 143.26	\$ 596.96	\$ 3.62	\$ 14.47
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 96.16	\$ 103.55	\$ 136.40	\$ 98.56	\$ 434.67	N/A	N/A
2022	\$ 112.70	\$ 121.94	\$ 163.00	\$ 115.70	\$ 513.33	\$ 19.67	\$ 78.67
2023	\$ 125.11	\$ 135.73	\$ 182.95	\$ 128.55	\$ 572.33	\$ 14.75	\$ 59.00
2024	\$ 134.62	\$ 146.30	\$ 198.25	\$ 138.40	\$ 617.57	\$ 11.31	\$ 45.23
2025	\$ 139.85	\$ 152.12	\$ 206.66	\$ 143.82	\$ 642.45	\$ 6.22	\$ 24.88
2026	\$ 143.14	\$ 155.78	\$ 211.96	\$ 147.24	\$ 658.12	\$ 3.92	\$ 15.67
Sewer							
Category	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
	Average Bill 9,400 Avg. Gallons	Average Bill 12,700 Avg. Gallons	Average Bill 11,700 Avg. Gallons	Average Bill 10,500 Avg. Gallons			
Residential							
Current (2021)	\$ 94.77	\$ 114.90	\$ 108.80	\$ 101.48	\$ 419.95	N/A	N/A
2022	\$ 113.72	\$ 137.88	\$ 130.56	\$ 121.78	\$ 503.94	\$ 21.00	\$ 83.99
2023	\$ 127.37	\$ 154.43	\$ 146.23	\$ 136.39	\$ 564.41	\$ 15.12	\$ 60.47
2024	\$ 140.11	\$ 169.87	\$ 160.85	\$ 150.03	\$ 620.85	\$ 14.11	\$ 56.44
2025	\$ 147.11	\$ 178.36	\$ 168.89	\$ 157.53	\$ 651.90	\$ 7.76	\$ 31.04
2026	\$ 151.53	\$ 183.71	\$ 173.96	\$ 162.26	\$ 671.45	\$ 4.89	\$ 19.56
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 98.43	\$ 125.88	\$ 138.08	\$ 100.87	\$ 463.26	N/A	N/A
2022	\$ 118.12	\$ 151.06	\$ 165.70	\$ 121.04	\$ 555.91	\$ 23.16	\$ 92.65
2023	\$ 132.29	\$ 169.18	\$ 185.58	\$ 135.57	\$ 622.62	\$ 16.68	\$ 66.71
2024	\$ 145.52	\$ 186.10	\$ 204.14	\$ 149.13	\$ 684.88	\$ 15.57	\$ 62.26
2025	\$ 152.79	\$ 195.41	\$ 214.34	\$ 156.58	\$ 719.13	\$ 8.56	\$ 34.24
2026	\$ 157.38	\$ 201.27	\$ 220.77	\$ 161.28	\$ 740.70	\$ 5.39	\$ 21.57

Average Quarterly Bills (Continued)

Average Utility Bill (Scenario 1)							
Storm							
Category	Quarterly Average Bill	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year			
Residential							
Current (2021)	\$ 8.91	\$ 35.64	N/A	N/A			
2022	\$ 11.14	\$ 44.55	\$ 2.23	\$ 8.91			
2023	\$ 12.81	\$ 51.23	\$ 1.67	\$ 6.68			
2024	\$ 14.73	\$ 58.92	\$ 1.92	\$ 7.68			
2025	\$ 16.20	\$ 64.81	\$ 1.47	\$ 5.89			
2026	\$ 17.01	\$ 68.05	\$ 0.81	\$ 3.24			
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year			
Commercial							
Current (2021)	\$ 81.00	\$ 324.00	N/A	N/A			
2022	\$ 101.25	\$ 405.00	\$ 20.25	\$ 81.00			
2023	\$ 116.44	\$ 465.75	\$ 15.19	\$ 60.75			
2024	\$ 133.90	\$ 535.61	\$ 17.47	\$ 69.86			
2025	\$ 147.29	\$ 589.17	\$ 13.39	\$ 53.56			
2026	\$ 154.66	\$ 618.63	\$ 7.36	\$ 29.46			
TOTAL							
Category	Quarter 1 Average Bill 9,400 Avg. Gallons	Quarter 2 Average Bill 12,700 Avg. Gallons	Quarter 3 Average Bill 11,700 Avg. Gallons	Quarter 4 Average Bill 10,500 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Residential							
Current (2021)	\$ 191.25	\$ 231.35	\$ 219.05	\$ 204.55	\$ 846.19	N/A	N/A
2022	\$ 228.07	\$ 277.19	\$ 262.13	\$ 244.36	\$ 1,011.74	\$ 41.39	\$ 165.55
2023	\$ 255.12	\$ 310.88	\$ 293.78	\$ 273.61	\$ 1,133.38	\$ 30.41	\$ 121.64
2024	\$ 278.77	\$ 340.11	\$ 321.30	\$ 299.11	\$ 1,239.28	\$ 26.47	\$ 105.90
2025	\$ 292.19	\$ 356.60	\$ 336.85	\$ 313.55	\$ 1,299.19	\$ 14.98	\$ 59.91
2026	\$ 300.53	\$ 366.87	\$ 346.53	\$ 322.53	\$ 1,336.46	\$ 9.32	\$ 37.27
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 275.59	\$ 310.43	\$ 355.48	\$ 280.43	\$ 1,221.93	N/A	N/A
2022	\$ 332.07	\$ 374.24	\$ 429.95	\$ 337.99	\$ 1,474.25	\$ 63.08	\$ 252.32
2023	\$ 373.83	\$ 421.35	\$ 484.97	\$ 380.56	\$ 1,660.71	\$ 46.61	\$ 186.46
2024	\$ 414.04	\$ 466.31	\$ 536.29	\$ 421.43	\$ 1,838.06	\$ 44.34	\$ 177.36
2025	\$ 439.93	\$ 494.82	\$ 568.30	\$ 447.70	\$ 1,950.75	\$ 28.17	\$ 112.68
2026	\$ 455.18	\$ 511.71	\$ 587.39	\$ 463.18	\$ 2,017.45	\$ 16.68	\$ 66.71

Average Quarterly Bills (Continued)

Average Utility Bill (Scenario 2)							
Water							
Category	Quarter 1 Average Bill 9,400 Avg. Gallons	Quarter 2 Average Bill 12,700 Avg. Gallons	Quarter 3 Average Bill 11,700 Avg. Gallons	Quarter 4 Average Bill 10,500 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Residential							
Current (2021)	\$ 87.57	\$ 107.54	\$ 101.34	\$ 94.16	\$ 390.60	N/A	N/A
2022	\$ 96.95	\$ 119.92	\$ 112.79	\$ 104.53	\$ 434.19	\$ 10.90	\$ 77.80
2023	\$ 105.59	\$ 131.31	\$ 123.33	\$ 114.07	\$ 474.29	\$ 10.03	\$ 71.57
2024	\$ 113.64	\$ 141.94	\$ 133.16	\$ 122.98	\$ 511.72	\$ 19.38	\$ 66.80
2025	\$ 118.08	\$ 147.78	\$ 138.57	\$ 127.88	\$ 532.31	\$ 14.50	\$ 36.74
2026	\$ 120.87	\$ 151.47	\$ 141.98	\$ 130.96	\$ 545.28	\$ 8.39	\$ 23.15
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 96.16	\$ 103.55	\$ 136.40	\$ 98.56	\$ 434.67	N/A	N/A
2022	\$ 106.08	\$ 114.58	\$ 152.36	\$ 108.84	\$ 481.87	\$ 11.80	\$ 47.20
2023	\$ 115.21	\$ 124.73	\$ 167.04	\$ 118.30	\$ 525.29	\$ 10.86	\$ 43.42
2024	\$ 123.74	\$ 134.21	\$ 180.75	\$ 127.13	\$ 565.82	\$ 10.13	\$ 40.53
2025	\$ 128.42	\$ 139.42	\$ 188.28	\$ 131.99	\$ 588.11	\$ 5.57	\$ 22.29
2026	\$ 131.37	\$ 142.70	\$ 193.03	\$ 135.05	\$ 602.15	\$ 3.51	\$ 14.04
Sewer							
Category	Quarter 1 Average Bill 9,400 Avg. Gallons	Quarter 2 Average Bill 12,700 Avg. Gallons	Quarter 3 Average Bill 11,700 Avg. Gallons	Quarter 4 Average Bill 10,500 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Residential							
Current (2021)	\$ 94.77	\$ 114.90	\$ 108.80	\$ 101.48	\$ 419.95	N/A	N/A
2022	\$ 108.99	\$ 132.14	\$ 125.12	\$ 116.70	\$ 482.94	\$ 15.75	\$ 62.99
2023	\$ 119.88	\$ 145.35	\$ 137.63	\$ 128.37	\$ 531.24	\$ 12.07	\$ 48.29
2024	\$ 131.87	\$ 159.88	\$ 151.40	\$ 141.21	\$ 584.36	\$ 13.28	\$ 53.12
2025	\$ 138.47	\$ 167.88	\$ 158.96	\$ 148.27	\$ 613.58	\$ 7.30	\$ 29.22
2026	\$ 142.62	\$ 172.91	\$ 163.73	\$ 152.72	\$ 631.99	\$ 4.60	\$ 18.41
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 98.43	\$ 125.88	\$ 138.08	\$ 100.87	\$ 463.26	N/A	N/A
2022	\$ 113.19	\$ 144.76	\$ 158.79	\$ 116.00	\$ 532.75	\$ 17.37	\$ 69.49
2023	\$ 124.51	\$ 159.24	\$ 174.67	\$ 127.60	\$ 586.02	\$ 13.32	\$ 53.27
2024	\$ 136.97	\$ 175.16	\$ 192.14	\$ 140.36	\$ 644.63	\$ 14.65	\$ 58.60
2025	\$ 143.81	\$ 183.92	\$ 201.75	\$ 147.38	\$ 676.86	\$ 8.06	\$ 32.23
2026	\$ 148.13	\$ 189.44	\$ 207.80	\$ 151.80	\$ 697.16	\$ 5.08	\$ 20.31

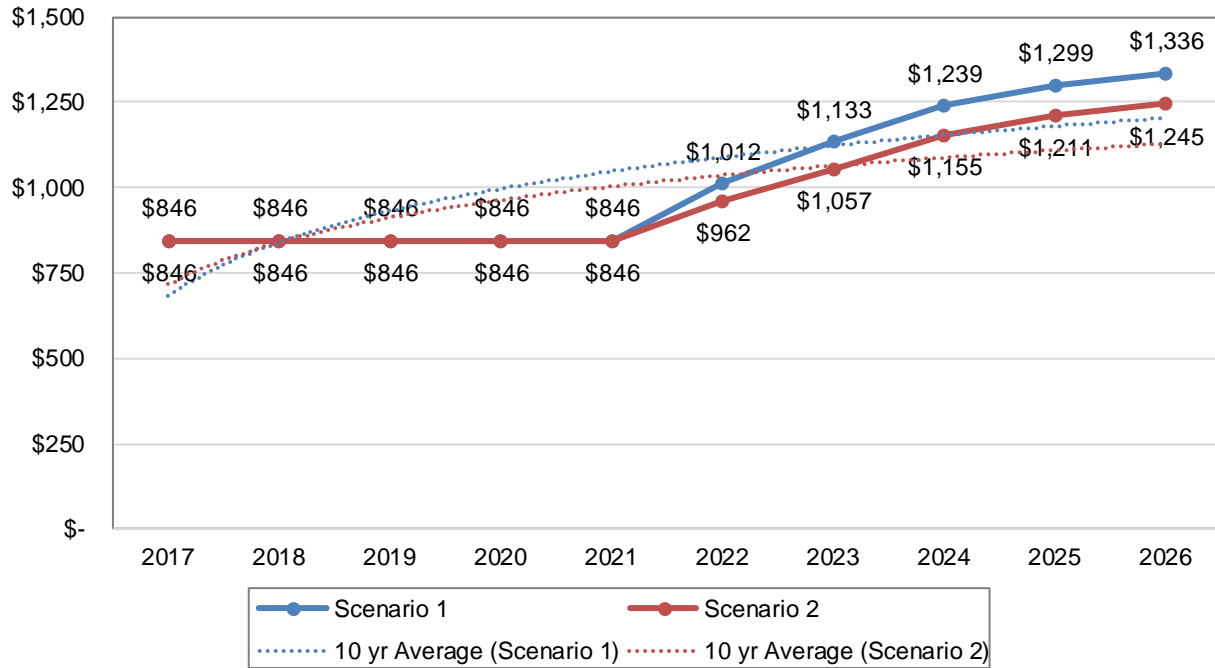
Average Quarterly Bills (Continued)

Average Utility Bill (Scenario 2)							
Storm							
Category	Quarterly Average Bill	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year			
Residential							
Current (2021)	\$ 8.91	\$ 35.64	N/A	N/A			
2022	\$ 10.25	\$ 40.99	\$ 1.34	\$ 5.35			
2023	\$ 11.27	\$ 45.08	\$ 1.02	\$ 4.10			
2024	\$ 12.40	\$ 49.59	\$ 1.13	\$ 4.51			
2025	\$ 13.64	\$ 54.55	\$ 1.24	\$ 4.96			
2026	\$ 15.00	\$ 60.01	\$ 1.36	\$ 5.46			
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year			
Commercial							
Current (2021)	\$ 81.00	\$ 324.00	N/A	N/A			
2022	\$ 93.15	\$ 372.60	\$ 12.15	\$ 48.60			
2023	\$ 102.47	\$ 409.86	\$ 9.32	\$ 37.26			
2024	\$ 112.71	\$ 450.85	\$ 10.25	\$ 40.99			
2025	\$ 123.98	\$ 495.93	\$ 11.27	\$ 45.08			
2026	\$ 136.38	\$ 545.52	\$ 12.40	\$ 49.59			
TOTAL							
Category	Quarter 1 Average Bill 9,400 Avg. Gallons	Quarter 2 Average Bill 12,700 Avg. Gallons	Quarter 3 Average Bill 11,700 Avg. Gallons	Quarter 4 Average Bill 10,500 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Residential							
Current (2021)	\$ 191.25	\$ 231.35	\$ 219.05	\$ 204.55	\$ 846.19	N/A	N/A
2022	\$ 217.07	\$ 263.19	\$ 249.05	\$ 232.37	\$ 961.68	\$ 28.87	\$ 115.49
2023	\$ 238.28	\$ 289.46	\$ 273.77	\$ 255.25	\$ 1,056.76	\$ 23.77	\$ 95.08
2024	\$ 260.25	\$ 316.55	\$ 299.29	\$ 278.92	\$ 1,155.00	\$ 24.56	\$ 98.24
2025	\$ 272.74	\$ 331.86	\$ 313.74	\$ 292.35	\$ 1,210.70	\$ 13.92	\$ 55.70
2026	\$ 280.50	\$ 341.39	\$ 322.72	\$ 300.69	\$ 1,245.31	\$ 8.65	\$ 34.62
Category	Quarter 1 Average Bill 10,000 Avg. Gallons	Quarter 2 Average Bill 14,500 Avg. Gallons	Quarter 3 Average Bill 16,500 Avg. Gallons	Quarter 4 Average Bill 10,400 Avg. Gallons	Total Annual Avg. Charges	Average Quarterly Change From Prior Year	Annual Change From Prior Year
Commercial							
Current (2021)	\$ 275.59	\$ 310.43	\$ 355.48	\$ 280.43	\$ 1,221.93	N/A	N/A
2022	\$ 320.53	\$ 360.60	\$ 412.40	\$ 326.09	\$ 1,419.62	\$ 49.42	\$ 197.69
2023	\$ 356.17	\$ 400.41	\$ 458.15	\$ 362.34	\$ 1,577.06	\$ 39.36	\$ 157.45
2024	\$ 394.60	\$ 443.27	\$ 506.79	\$ 401.39	\$ 1,746.06	\$ 42.25	\$ 168.99
2025	\$ 419.53	\$ 470.63	\$ 537.32	\$ 426.66	\$ 1,854.14	\$ 27.02	\$ 108.08
2026	\$ 434.16	\$ 486.80	\$ 555.49	\$ 441.50	\$ 1,917.95	\$ 15.95	\$ 63.81

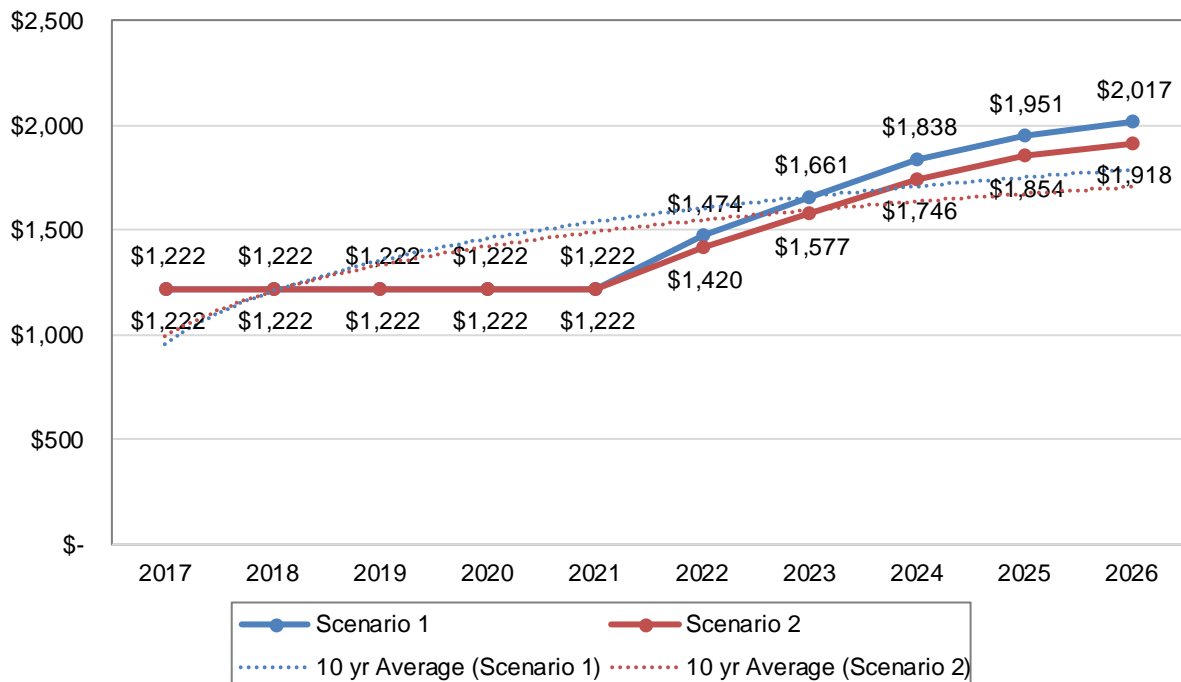
Average Quarterly Bills (Continued)

The Charts below illustrate the average annual charges per customer, with historical and projected bills.

Average Annual Charges (Residential)



Average Annual Charges (Commercial)

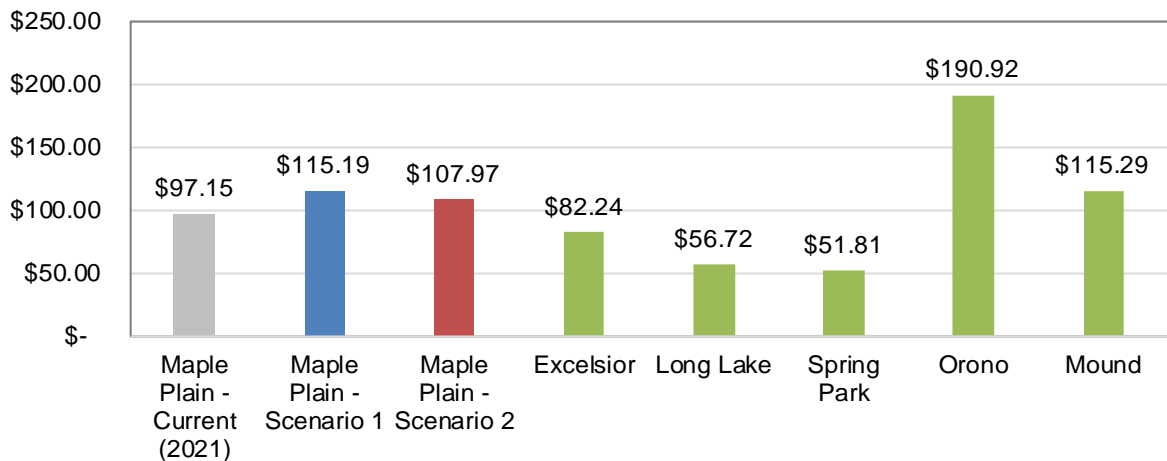


Comparison to other Cities

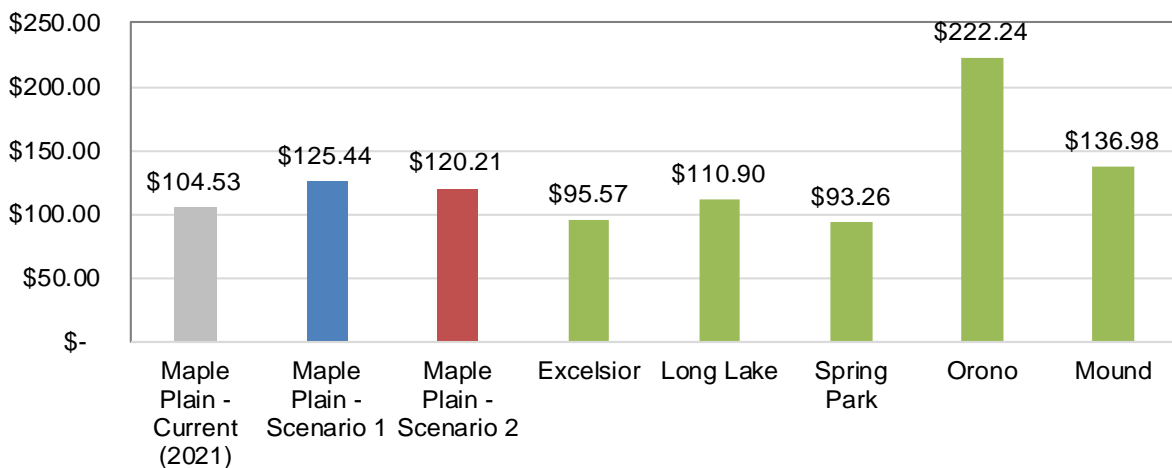
Comparison of Average Quarterly Water and Sewer Bill (Scenario 1 and Scenario 2)			
Category	Average Quarterly Bill (11,000 Gallons)		
	Water	Sewer	Total
Maple Plain - Current (2021)	\$ 97.15	\$ 104.53	\$ 201.68
Maple Plain - Scenario 1	115.19	125.44	\$ 240.62
Maple Plain - Scenario 2	107.97	120.21	\$ 228.18
Excelsior	\$ 82.24	\$ 95.57	\$ 177.81
Long Lake	\$ 56.72	\$ 110.90	\$ 167.62
Spring Park	\$ 51.81	\$ 93.26	\$ 145.07
Orono	\$ 190.92	\$ 222.24	\$ 413.16
Mound	\$ 115.29	\$ 136.98	\$ 252.27

Note: Spring Park and Orono, like Maple Plain, have a water treatment plant.

**Water
Comparison to other Cities**



**Sewer
Comparison to other Cities**



FINANCIAL SECTION

City of Maple Plain, MINNESOTA
2022 - 2026 UTILITY RATE STUDY

City of Maple Plain, Minnesota
Water Fund
Cash Flow Projections
Scenario 1
For the Years Ending December 31, 2022 through 2030

	Actual results			Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020		Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase													
Usage rates					25%	15%	10%	5%	3%				
Fixed					25%	15%	10%	5%	3%				
Cash Flows from Operating Activities													
Receipts from customers and users													
Receipts from customers	\$ 416,796	\$ 387,324	\$ 428,657	441,504	\$ 544,591	\$ 612,001	\$ 663,675	\$ 692,232	\$ 710,186	\$ 728,570	\$ 747,505	\$ 767,009	\$ 787,097
Penalties	-	-	-	3,240	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920
Other revenues	12,031	-	-	-	-	-	-	-	-	-	-	-	-
Payments to suppliers/service providers	(208,809)	(133,265)	(234,624)	(290,800)	(327,504)	(339,516)	(352,105)	(365,303)	(379,139)	(393,643)	(408,847)	(424,789)	(441,505)
Payments to employees	(79,060)	(56,948)	(5,516)	(4,380)	-	-	-	-	-	-	-	-	-
Net cash from operating activities	140,958	197,111	188,517	149,564	221,007	276,404	315,489	330,849	334,967	338,846	342,578	346,139	349,512
Cash Flows from Noncapital Financing Activities													
Transfers to other funds													
(1) Transfers for debt obligations	(54,350)	(53,524)	(54,273)	(53,807)	-	-	-	-	-	-	-	-	-
Transfers for capital and other	30,600	30,600	30,600	27,800	-	-	-	-	-	-	-	-	-
Net cash from noncapital financing activities	(23,750)	(22,924)	(23,673)	(26,007)	-	-	-	-	-	-	-	-	-
Cash Flows from Capital and Related Financing Activities													
Acquisition of capital assets	(360,122)	(114,145)	-	(450,000)	-	-	(250,000)	-	-	(500,000)	-	-	(355,000)
Capital Reserve	-	-	-	-	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Connection fees received	14,849	266,278	21,000	-	-	-	-	-	-	-	-	-	-
Special assessments received	40,460	48,183	32,045	19,175	19,175	29,898	29,898	29,898	29,898	29,898	29,898	29,898	29,898
Proceeds of long-term debt, net of issuance costs	475,644	-	-	449,966	-	-	250,000	-	-	500,000	-	-	355,000
Interest paid on long-term debt	(76,255)	(89,433)	(80,301)	(73,808)	(92,420)	(78,320)	(68,612)	(66,220)	(56,170)	(45,909)	(54,038)	(48,350)	(44,100)
Principal paid on long-term debt	(278,000)	(282,000)	(306,000)	(315,000)	(361,000)	(377,800)	(364,250)	(385,917)	(392,967)	(172,017)	(226,500)	(165,000)	(170,000)
Net cash from capital and related financing activities	(183,424)	(171,117)	(333,256)	(369,667)	(454,245)	(446,221)	(422,964)	(442,238)	(439,238)	(208,027)	(270,639)	(203,452)	(204,202)
Cash Flows from Investing Activities													
Investment earnings and other activity	7,179	6,518	3,025	-	4,181	4,181	4,181	4,181	4,181	4,181	4,181	4,181	4,181
Net Increase (Decrease)													
In Cash and Cash Equivalents	(59,037)	9,588	(165,387)	(246,111)	(229,058)	(165,636)	(103,294)	(107,209)	(100,091)	135,000	76,119	146,868	149,491
Cash and Cash Equivalents, January 1	1,192,591	1,133,554	1,143,142	977,755	731,644	502,587	336,950	233,656	126,447	26,357	161,357	237,476	384,344
Cash and Cash Equivalents, December 31	<u>\$ 1,133,554</u>	<u>\$ 1,143,142</u>	<u>\$ 977,755</u>	<u>\$ 731,644</u>	<u>\$ 502,587</u>	<u>\$ 336,950</u>	<u>\$ 233,656</u>	<u>\$ 126,447</u>	<u>\$ 26,357</u>	<u>\$ 161,357</u>	<u>\$ 237,476</u>	<u>\$ 384,344</u>	<u>\$ 533,835</u>
Minimum Target Operating Reserve			<u>\$ 536,398</u>	<u>\$ 617,172</u>	<u>\$ 625,878</u>	<u>\$ 608,915</u>	<u>\$ 634,789</u>	<u>\$ 638,706</u>	<u>\$ 414,747</u>	<u>\$ 484,961</u>	<u>\$ 425,745</u>	<u>\$ 434,853</u>	<u>\$ 470,694</u>
Cash in Excess of Reserve			<u>\$ 441,357</u>	<u>\$ 114,472</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 63,141</u>
Average Quarterly bill (11,000 gallons)			<u>\$ 97.15</u>	<u>\$ 115.19</u>	<u>\$ 128.72</u>	<u>\$ 139.09</u>	<u>\$ 144.79</u>	<u>\$ 148.39</u>					
Average percentage increase					15.7%	10.5%	7.5%	3.9%	2.4%				
Average quarterly dollar increase					\$ 18.04	\$ 13.53	\$ 10.37	\$ 5.70	\$ 3.59				
Average annual dollar increase					\$ 72.15	\$ 54.11	\$ 41.49	\$ 22.82	\$ 14.37				

(1) Transfers for debt service are expected to end in 2021, the related debt service payments will be made directly from the fund.

City of Maple Plain, Minnesota
Sewer Fund
Cash Flow Projections
Scenario 1
For the Years Ending December 31, 2022 through 2030

	Actual results			Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020		Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase													
Usage rates					20%	12%	10%	5%	3%				
Fixed					20%	12%	10%	5%	3%				
Cash Flows from Operating Activities													
Receipts from customers and users													
Receipts from customers	\$ 304,653	\$ 359,604	\$ 330,657	\$ 347,646	\$ 416,553	\$ 466,833	\$ 513,603	\$ 539,518	\$ 555,808	\$ 572,483	\$ 589,657	\$ 607,347	\$ 625,567
Penalties	-	-	-	5,000	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719
Other revenues	8,822	-	-	-	-	-	-	-	-	-	-	-	-
Payments to suppliers/service providers	(140,513)	(464,126)	(344,107)	(333,434)	(298,635)	(310,777)	(323,430)	(336,616)	(350,360)	(364,685)	(379,615)	(395,178)	(411,402)
Payments to employees	(18,530)	(18,492)	(4,878)	(2,370)	-	-	-	-	-	-	-	-	-
Net cash from operating activities	154,432	(123,014)	(18,328)	16,842	121,637	159,775	193,892	206,621	209,167	211,516	213,761	215,888	217,884
Cash Flows from Noncapital Financing Activities													
Transfers to other funds													
(1) Transfers for debt obligations	(47,010)	(51,310)	(50,510)	(51,251)	-	-	-	-	-	-	-	-	-
Cash Flows from Capital and Related Financing Activities													
Acquisition of capital assets	(165,050)	(47,782)	-	(325,000)	-	-	(160,000)	-	-	(320,000)	-	-	(300,000)
Capital Reserve	-	-	-	-	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Connection fees received	3,285	78,995	6,570	-	-	-	-	-	-	-	-	-	-
Special assessments received	19,411	33,729	18,217	11,694	11,694	20,354	20,354	20,354	20,354	20,354	20,354	20,354	20,354
Proceeds of long-term debt, net of issuance costs	218,408	-	-	362,775	-	-	160,000	-	-	320,000	-	-	300,000
Interest paid on long-term debt	(19,420)	(27,361)	(25,035)	(23,945)	(43,853)	(35,959)	(32,083)	(33,163)	(29,398)	(25,543)	(30,443)	(26,933)	(24,671)
Principal paid on long-term debt	(35,000)	(35,000)	(50,000)	(50,000)	(107,000)	(114,800)	(95,000)	(105,667)	(107,467)	(109,267)	(141,000)	(87,000)	(92,000)
Net cash from capital and related financing activities	21,634	2,581	(50,248)	(24,476)	(159,159)	(150,405)	(126,729)	(138,476)	(136,511)	(134,456)	(171,089)	(113,579)	(116,318)
Cash Flows from Investing Activities													
Investment earnings and other activity	1,065	834	337	-	621	626	632	638	644	649	655	661	667
Net Increase (Decrease)													
In Cash and Cash Equivalents	130,121	(170,909)	(118,749)	(58,884)	(36,901)	9,996	67,795	68,783	73,300	77,710	43,327	102,970	102,234
Cash and Cash Equivalents, January 1	56,557	186,678	15,769	(102,980)	(161,864)	(198,765)	(188,769)	(120,974)	(52,191)	21,109	98,820	142,147	245,117
Cash and Cash Equivalents, December 31	\$ 186,678	\$ 15,769	\$ (102,980)	\$ (161,864)	\$ (198,765)	\$ (188,769)	\$ (120,974)	\$ (52,191)	\$ 21,109	\$ 98,820	\$ 142,147	\$ 245,117	\$ 347,351
Minimum Target Operating Reserve			\$ 241,847	\$ 300,170	\$ 306,147	\$ 288,798	\$ 307,137	\$ 312,044	\$ 317,152	\$ 361,250	\$ 311,522	\$ 322,372	\$ 343,190
Cash in Excess of Reserve			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,161
Average monthly bill (4,500 gallons)			\$ 104.53	\$ 104.53	\$ 125.44	\$ 140.49	\$ 154.54	\$ 162.26	\$ 167.13				
Average percentage increase					17%	11%	9%	5%	3%				
Average quarterly dollar increase					\$ 20.91	\$ 15.05	\$ 14.05	\$ 7.73	\$ 4.87				
Average annual dollar increase					\$ 83.62	\$ 60.21	\$ 56.20	\$ 30.91	\$ 19.47				

(1) Transfers for debt service are expected to end in 2021, the related debt service payments will be made directly from the fund.

City of Maple Plain, Minnesota
Stormwater Fund
Cash Flow Projections
Scenario 1
For the Years Ending December 31, 2022 through 2030

	Actual results			Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020		Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase													
Fixed					25%	15%	15%	10%	5%				
Cash Flows from Operating Activities													
Receipts from customers and users													
Receipts from customers	\$ 81,876	\$ 76,093	\$ 74,923	\$ 69,649	\$ 86,897	\$ 100,000	\$ 115,001	\$ 126,551	\$ 132,936	\$ 136,925	\$ 141,032	\$ 145,263	\$ 149,621
Penalties	-	-	-	-	1,079	1,079	1,079	1,079	1,079	1,079	1,079	1,079	1,079
Other revenues	8,822	-	-	-	-	-	-	-	-	-	-	-	-
Payments to suppliers/service providers	(17,342)	(13,258)	(13,137)	(41,036)	(37,535)	(38,096)	(38,673)	(39,268)	(39,882)	(40,513)	(41,163)	(41,832)	(42,522)
Payments to employees	(31)	(63)	-	-	-	-	-	-	-	-	-	-	-
Net cash from operating activities	73,325	62,772	61,786	28,613	50,442	62,983	77,407	88,362	94,134	97,491	100,949	104,511	108,178
Cash Flows from Noncapital Financing Activities													
Transfers to other funds													
Transfers for debt obligations	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers for capital and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash from noncapital financing activities	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash Flows from Capital and Related Financing Activities													
Acquisition of capital assets	(161,382)	(46,720)	-	(200,000)	-	-	(170,000)	-	-	(320,000)	-	-	(300,000)
Capital Reserve	-	-	-	-	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Connection fees received	-	-	-	-	-	-	-	-	-	-	-	-	-
Special assessments received	17,214	26,943	16,380	10,317	10,317	14,815	14,815	14,815	14,815	14,815	14,815	14,815	14,815
Proceeds of long-term debt, net of issuance costs	213,554	-	-	188,745	-	-	170,000	-	-	320,000	-	-	300,000
Interest paid on long-term debt	(17,513)	(25,296)	(23,144)	(22,288)	(24,497)	(22,963)	(21,756)	(25,266)	(23,601)	(21,861)	(29,081)	(26,701)	(24,305)
Principal paid on long-term debt	(30,000)	(30,000)	(40,000)	(40,000)	(40,000)	(45,000)	(50,000)	(61,333)	(66,333)	(66,333)	(87,667)	(87,667)	(87,667)
Net cash from capital and related financing activities	21,873	(75,073)	(46,764)	(63,226)	(59,180)	(58,147)	(61,941)	(76,784)	(80,119)	(78,379)	(106,933)	(104,553)	(102,156)
Cash Flows from Investing Activities													
Investment earnings and other activity	2,991	2,901	1,455	-	1,478	1,487	1,496	1,506	1,516	1,525	1,535	1,545	1,555
Net Increase (Decrease)													
In Cash and Cash Equivalents	98,189	(9,400)	16,477	(34,613)	(7,260)	6,323	16,963	13,084	15,530	20,637	(4,449)	1,503	7,577
Cash and Cash Equivalents, January 1	430,619	528,808	519,408	535,885	501,272	494,012	500,335	517,298	530,382	545,912	566,549	562,100	563,603
Cash and Cash Equivalents, December 31	<u>\$ 528,808</u>	<u>\$ 519,408</u>	<u>\$ 535,885</u>	<u>\$ 501,272</u>	<u>\$ 494,012</u>	<u>\$ 500,335</u>	<u>\$ 517,298</u>	<u>\$ 530,382</u>	<u>\$ 545,912</u>	<u>\$ 566,549</u>	<u>\$ 562,100</u>	<u>\$ 563,603</u>	<u>\$ 571,180</u>
Minimum Target Operating Reserve				<u>\$ 83,264</u>	<u>\$ 87,011</u>	<u>\$ 91,093</u>	<u>\$ 106,234</u>	<u>\$ 109,876</u>	<u>\$ 108,451</u>	<u>\$ 137,329</u>	<u>\$ 135,284</u>	<u>\$ 133,233</u>	<u>\$ 159,821</u>
Cash in Excess of Reserve				<u>\$ 418,008</u>	<u>\$ 407,002</u>	<u>\$ 409,243</u>	<u>\$ 411,064</u>	<u>\$ 420,506</u>	<u>\$ 437,461</u>	<u>\$ 429,219</u>	<u>\$ 426,816</u>	<u>\$ 430,370</u>	<u>\$ 411,359</u>
Average quarterly bill				<u>\$ 8.91</u>	<u>\$ 11.14</u>	<u>\$ 12.81</u>	<u>\$ 14.73</u>	<u>\$ 16.20</u>	<u>\$ 17.01</u>				
Average percentage increase					20%	13%	13%	9%	5%				
Average quarterly dollar increase					\$ 2.23	\$ 1.67	\$ 1.92	\$ 1.47	\$ 0.81				
Average annual dollar increase					\$ 8.91	\$ 6.68	\$ 7.68	\$ 5.89	\$ 3.24				

City of Maple Plain, Minnesota
Water Fund
Cash Flow Projections - Detailed
Scenario 2
For the Years Ending December 31, 2022 through 2030

	Actual results			Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020		Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase													
Usage rates					15%	12%	10%	5%	3%				
Fixed					15%	12%	10%	5%	3%				
Cash Flows from Operating Activities													
Receipts from customers and users													
Receipts from customers	\$ 416,796	\$ 387,324	\$ 428,657	\$ 441,504	\$ 509,084	\$ 558,585	\$ 604,782	\$ 630,369	\$ 646,455	\$ 665,849	\$ 685,824	\$ 706,399	\$ 727,591
Penalties	-	-	-	3,240	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920
Other revenues	12,031	-	-	-	-	-	-	-	-	-	-	-	-
Payments to suppliers/service providers	(208,809)	(133,265)	(234,624)	(290,800)	(327,504)	(339,516)	(352,105)	(365,303)	(379,139)	(393,643)	(408,847)	(424,789)	(441,505)
Payments to employees	(79,060)	(56,948)	(5,516)	(4,380)	-	-	-	-	-	-	-	-	-
Net cash from operating activities	140,958	197,111	188,517	149,564	185,500	222,988	256,596	268,985	271,236	276,125	280,897	285,530	290,006
Cash Flows from Noncapital Financing Activities													
Transfers to other funds													
(1) Transfers for debt obligations	(54,350)	(53,524)	(54,273)	(53,807)	-	-	-	-	-	-	-	-	-
Transfers for capital and other	30,600	30,600	30,600	27,800	-	-	-	-	-	-	-	-	-
Net cash from noncapital financing activities	(23,750)	(22,924)	(23,673)	(26,007)	-	-	-	-	-	-	-	-	-
Cash Flows from Capital and Related Financing Activities													
Acquisition of capital assets	(360,122)	(114,145)	-	(450,000)	-	-	(250,000)	-	-	(500,000)	-	-	(355,000)
Capital Reserve	-	-	-	-	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Connection fees received	14,849	266,278	21,000	-	-	-	-	-	-	-	-	-	-
Special assessments received	40,460	48,183	32,045	19,175	19,175	29,898	29,898	29,898	29,898	29,898	29,898	29,898	29,898
Proceeds of long-term debt, net of issuance costs	475,644	-	-	449,966	-	-	250,000	-	-	500,000	-	-	355,000
Interest paid on long-term debt	(76,255)	(89,433)	(80,301)	(73,808)	(92,420)	(78,320)	(68,612)	(66,220)	(56,170)	(45,909)	(54,038)	(48,350)	(44,100)
Principal paid on long-term debt	(278,000)	(282,000)	(306,000)	(315,000)	(361,000)	(377,800)	(364,250)	(385,917)	(392,967)	(172,017)	(226,500)	(165,000)	(170,000)
Net cash from capital and related financing activities	(183,424)	(171,117)	(333,256)	(369,667)	(454,245)	(446,221)	(422,964)	(442,238)	(439,238)	(208,027)	(270,639)	(203,452)	(204,202)
Cash Flows from Investing Activities													
Investment earnings and other activity	7,179	6,518	3,025	-	4,181	4,181	4,181	4,181	4,181	4,181	4,181	4,181	4,181
Net Increase (Decrease)													
In Cash and Cash Equivalents	(59,037)	9,588	(165,387)	(246,111)	(264,565)	(219,052)	(162,187)	(169,073)	(163,821)	72,279	14,438	86,259	89,985
Cash and Cash Equivalents, January 1	1,192,591	1,133,554	1,143,142	977,755	731,644	467,079	248,027	85,840	(83,233)	(247,054)	(174,775)	(160,336)	(74,078)
Cash and Cash Equivalents, December 31	<u>\$ 1,133,554</u>	<u>\$ 1,143,142</u>	<u>\$ 977,755</u>	<u>\$ 731,644</u>	<u>\$ 467,079</u>	<u>\$ 248,027</u>	<u>\$ 85,840</u>	<u>\$ (83,233)</u>	<u>\$ (247,054)</u>	<u>\$ (174,775)</u>	<u>\$ (160,336)</u>	<u>\$ (74,078)</u>	<u>\$ 15,907</u>
Minimum Target Operating Reserve			<u>\$ 536,398</u>	<u>\$ 617,172</u>	<u>\$ 625,878</u>	<u>\$ 608,915</u>	<u>\$ 634,789</u>	<u>\$ 638,706</u>	<u>\$ 414,747</u>	<u>\$ 484,961</u>	<u>\$ 425,745</u>	<u>\$ 434,853</u>	<u>\$ 470,694</u>
Cash in Excess of Reserve			<u>\$ 441,357</u>	<u>\$ 114,472</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Average Quarterly bill (11,000 gallons)			<u>\$ 97.15</u>	<u>\$ 107.97</u>	<u>\$ 117.93</u>	<u>\$ 127.22</u>	<u>\$ 132.33</u>	<u>\$ 135.55</u>					
Average percentage increase					10.0%	8.4%	7.3%	3.9%	2.4%				
Average quarterly dollar increase					\$ 10.82	\$ 9.96	\$ 9.29	\$ 5.11	\$ 3.22				
Average annual dollar increase					\$ 43.29	\$ 39.83	\$ 37.17	\$ 20.44	\$ 12.88				

(1) Transfers for debt service are expected to end in 2021, the related debt service payments will be made directly from the fund.

City of Maple Plain, Minnesota
Sewer Fund
Cash Flow Projections
Scenario 2
For the Years Ending December 31, 2022 through 2030

	Actual results				Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020			Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase														
Usage rates						15%	10%	10%	5%	3%				
Fixed						15%	10%	10%	5%	3%				
Cash Flows from Operating Activities														
Receipts from customers and users														
Receipts from customers	\$ 304,653	\$ 359,604	\$ 330,657	\$ 347,646	\$ 399,313	\$ 439,427	\$ 483,371	\$ 507,760	\$ 523,091	\$ 538,784	\$ 554,948	\$ 571,596	\$ 588,744	
Penalties	-	-	-	5,000	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719	3,719	
Other revenues	8,822	-	-	-	-	-	-	-	-	-	-	-	-	
Payments to suppliers/service providers	(140,513)	(464,126)	(344,107)	(333,434)	(298,635)	(310,777)	(323,430)	(336,616)	(350,360)	(364,685)	(379,615)	(395,178)	(411,402)	
Payments to employees	(18,530)	(18,492)	(4,878)	(2,370)	-	-	-	-	-	-	-	-	-	
Net cash from operating activities	154,432	(123,014)	(18,328)	16,842	104,397	132,369	163,660	174,863	176,450	177,818	179,051	180,137	181,061	
Cash Flows from Noncapital Financing Activities														
Transfers to other funds														
(1) Transfers for debt obligations	(47,010)	(51,310)	(50,510)	(51,251)	-	-	-	-	-	-	-	-	-	
Cash Flows from Capital and Related Financing Activities														
Acquisition of capital assets	(165,050)	(47,782)	-	(325,000)	-	-	(160,000)	-	-	(320,000)	-	-	(300,000)	
Capital Reserve	-	-	-	-	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	
Connection fees received	3,285	78,995	6,570	-	-	-	-	-	-	-	-	-	-	
Special assessments received	19,411	33,729	18,217	11,694	11,694	20,354	20,354	20,354	20,354	20,354	20,354	20,354	20,354	
Proceeds of long-term debt, net of issuance costs	218,408	-	-	362,775	-	-	160,000	-	-	320,000	-	-	300,000	
Interest paid on long-term debt	(19,420)	(27,361)	(25,035)	(23,945)	(43,853)	(35,959)	(32,083)	(33,163)	(29,398)	(25,543)	(30,443)	(26,933)	(24,671)	
Principal paid on long-term debt	(35,000)	(35,000)	(50,000)	(50,000)	(107,000)	(114,800)	(95,000)	(105,667)	(107,467)	(109,267)	(141,000)	(87,000)	(92,000)	
Net cash from capital and related financing activities	21,634	2,581	(50,248)	(24,476)	(159,159)	(150,405)	(126,729)	(138,476)	(136,511)	(134,456)	(171,089)	(113,579)	(116,318)	
Cash Flows from Investing Activities														
Investment earnings and other activity	1,065	834	337	-	621	626	632	638	644	649	655	661	667	
Net Increase (Decrease)														
In Cash and Cash Equivalents	130,121	(170,909)	(118,749)	(58,884)	(54,141)	(17,410)	37,563	37,025	40,583	44,012	8,618	67,219	65,410	
Cash and Cash Equivalents, January 1	56,557	186,678	15,769	(102,980)	(161,864)	(216,005)	(233,415)	(195,852)	(158,827)	(118,244)	(74,232)	(65,614)	1,605	
Cash and Cash Equivalents, December 31	<u>\$ 186,678</u>	<u>\$ 15,769</u>	<u>\$ (102,980)</u>	<u>\$ (161,864)</u>	<u>\$ (216,005)</u>	<u>\$ (233,415)</u>	<u>\$ (195,852)</u>	<u>\$ (158,827)</u>	<u>\$ (118,244)</u>	<u>\$ (74,232)</u>	<u>\$ (65,614)</u>	<u>\$ 1,605</u>	<u>\$ 67,016</u>	
Minimum Target Operating Reserve			<u>\$ 241,847</u>	<u>\$ 300,170</u>	<u>\$ 306,147</u>	<u>\$ 288,798</u>	<u>\$ 307,137</u>	<u>\$ 312,044</u>	<u>\$ 317,152</u>	<u>\$ 361,250</u>	<u>\$ 311,522</u>	<u>\$ 322,372</u>	<u>\$ 322,372</u>	
Cash in Excess of Reserve			<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Average monthly bill (4,500 gallons)				<u>\$ 104.53</u>	<u>\$ 120.21</u>	<u>\$ 132.23</u>	<u>\$ 145.45</u>	<u>\$ 152.73</u>	<u>\$ 157.31</u>					
Average percentage increase					13%	9%	9%	5%	3%					
Average quarterly dollar increase					\$ 15.68	\$ 12.02	\$ 13.22	\$ 7.27	\$ 4.58					
Average annual dollar increase					\$ 62.72	\$ 48.08	\$ 52.89	\$ 29.09	\$ 18.33					

(1) Transfers for debt service are expected to end in 2021, the related debt service payments will be made directly from the fund.

City of Maple Plain, Minnesota
Stormwater Fund
Cash Flow Projections
Scenario 2
For the Years Ending December 31, 2022 through 2030

	Actual results				Budget 2021	RATE STUDY PROJECTIONS					Estimated 2027	Estimated 2028	Estimated 2029	Estimated 2030
	2018	2019	2020			Estimated 2022	Estimated 2023	Estimated 2024	Estimated 2025	Estimated 2026				
Projected Rate Increase														
Fixed						15%	10%	10%	10%	10%				
Cash Flows from Operating Activities														
Receipts from customers and users														
Receipts from customers	\$ 81,876	\$ 76,093	\$ 74,923	\$ 69,649	\$ 80,001	\$ 88,035	\$ 96,839	\$ 106,523	\$ 117,176	\$ 120,691	\$ 124,312	\$ 128,041	\$ 131,882	
Penalties	-	-	-	-	1,079	1,079	1,079	1,079	1,079	1,079	1,079	1,079	1,079	
Other revenues	8,822	-	-	-	-	-	-	-	-	-	-	-	-	
Payments to suppliers/service providers	(17,342)	(13,258)	(13,137)	(41,036)	(37,535)	(38,096)	(38,673)	(39,268)	(39,882)	(40,513)	(41,163)	(41,832)	(42,522)	
Payments to employees	(31)	(63)	-	-	-	-	-	-	-	-	-	-	-	
Net cash from operating activities	<u>73,325</u>	<u>62,772</u>	<u>61,786</u>	<u>28,613</u>	<u>43,546</u>	<u>51,019</u>	<u>59,246</u>	<u>68,334</u>	<u>78,373</u>	<u>81,257</u>	<u>84,228</u>	<u>87,288</u>	<u>90,439</u>	
Cash Flows from Noncapital Financing Activities														
Transfers to other funds	-	-	-	-	-	-	-	-	-	-	-	-	-	
Transfers for debt obligations	-	-	-	-	-	-	-	-	-	-	-	-	-	
Transfers for capital and other	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net cash from noncapital financing activities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
Cash Flows from Capital and Related Financing Activities														
Acquisition of capital assets	(161,382)	(46,720)	-	(200,000)	-	-	(170,000)	-	-	(320,000)	-	-	(300,000)	
Capital Reserve	-	-	-	-	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	
Connection fees received	-	-	-	-	-	-	-	-	-	-	-	-	-	
Special assessments received	17,214	26,943	16,380	10,317	10,317	14,815	14,815	14,815	14,815	14,815	14,815	14,815	14,815	
Proceeds of long-term debt, net of issuance costs	213,554	-	-	188,745	-	-	170,000	-	-	320,000	-	-	300,000	
Interest paid on long-term debt	(17,513)	(25,296)	(23,144)	(22,288)	(24,497)	(22,963)	(21,756)	(25,266)	(23,601)	(21,861)	(29,081)	(26,701)	(24,305)	
Principal paid on long-term debt	(30,000)	(30,000)	(40,000)	(40,000)	(40,000)	(45,000)	(50,000)	(61,333)	(66,333)	(66,333)	(87,667)	(87,667)	(87,667)	
Net cash from capital and related financing activities	<u>21,873</u>	<u>(75,073)</u>	<u>(46,764)</u>	<u>(63,226)</u>	<u>(59,180)</u>	<u>(58,147)</u>	<u>(61,941)</u>	<u>(76,784)</u>	<u>(80,119)</u>	<u>(78,379)</u>	<u>(106,933)</u>	<u>(104,553)</u>	<u>(102,156)</u>	
Cash Flows from Investing Activities														
Investment earnings and other activity	2,991	2,901	1,455	-	1,478	1,487	1,496	1,506	1,516	1,525	1,535	1,545	1,555	
Net Increase (Decrease)														
In Cash and Cash Equivalents	98,189	(9,400)	16,477	(34,613)	(14,156)	(5,641)	(1,199)	(6,944)	(231)	4,403	(21,170)	(15,719)	(10,162)	
Cash and Cash Equivalents, January 1	<u>430,619</u>	<u>528,808</u>	<u>519,408</u>	<u>535,885</u>	<u>501,272</u>	<u>487,116</u>	<u>481,475</u>	<u>480,276</u>	<u>473,332</u>	<u>473,101</u>	<u>477,504</u>	<u>456,334</u>	<u>440,615</u>	
Cash and Cash Equivalents, December 31	<u>\$ 528,808</u>	<u>\$ 519,408</u>	<u>\$ 535,885</u>	<u>\$ 501,272</u>	<u>\$ 487,116</u>	<u>\$ 481,475</u>	<u>\$ 480,276</u>	<u>\$ 473,332</u>	<u>\$ 473,101</u>	<u>\$ 477,504</u>	<u>\$ 456,334</u>	<u>\$ 440,615</u>	<u>\$ 430,453</u>	
Minimum Target Operating Reserve			<u>\$ 82,806</u>	<u>\$ 83,264</u>	<u>\$ 87,011</u>	<u>\$ 91,093</u>	<u>\$ 106,234</u>	<u>\$ 109,876</u>	<u>\$ 108,451</u>	<u>\$ 137,329</u>	<u>\$ 135,284</u>	<u>\$ 133,233</u>	<u>\$ 159,821</u>	
Cash in Excess of Reserve			<u>\$ 453,079</u>	<u>\$ 418,008</u>	<u>\$ 400,106</u>	<u>\$ 390,382</u>	<u>\$ 374,042</u>	<u>\$ 363,456</u>	<u>\$ 364,650</u>	<u>\$ 340,175</u>	<u>\$ 321,050</u>	<u>\$ 307,382</u>	<u>\$ 270,632</u>	
Average quarterly bill			<u>\$ 8.91</u>		<u>\$ 10.25</u>	<u>\$ 11.27</u>	<u>\$ 12.40</u>	<u>\$ 13.64</u>	<u>\$ 15.00</u>					
Average percentage increase						13%	9%	9%	9%	9%				
Average quarterly dollar increase					\$ 1.34	\$ 1.02	\$ 1.13	\$ 1.24	\$ 1.36					
Average annual dollar increase					\$ 5.35	\$ 4.10	\$ 4.51	\$ 4.96	\$ 5.46					

City of Maple Plain, Minnesota
Debt Payment Schedule
For the Years Ending December 31, 2022 through 2030

		Maturity										
		Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Fund												
GO Bonds, Series 2013A	2021	\$	45,630	-	-	-	-	-	-	-	-	-
G.O. Water Revenue Note 2007	2027		227,241	226,941	227,555	227,061	227,482	227,795	-	-	-	-
GO Bonds, Series 2021B	2028		-	104,407	89,278	63,601	61,039	60,475	59,809	63,038	-	-
GO Bonds, Series 2014A	2035		37,775	37,150	36,400	35,650	34,900	34,150	33,400	37,575	36,675	35,775
GO Bonds, Series 2016A	2037		43,738	43,363	42,988	47,450	46,750	46,050	45,350	49,600	48,800	47,950
GO Bonds, Series 2018A	2039		34,425	33,825	33,225	32,625	32,025	31,425	30,825	35,150	34,400	33,650
GO Bonds, Series 2021A	2042		-	7,735	26,675	26,475	26,275	26,075	25,875	25,675	25,475	30,225
GO Bonds, Series 2024*	2045*		-	-	-	-	23,667	23,167	22,667	22,167	21,667	21,167
GO Bonds, Series 2027*	2048*		-	-	-	-	-	-	-	47,333	46,333	45,333
GO Bonds, Series 2030*	2050*		-	-	-	-	-	-	-	-	-	-
Total Principal and Interest Payments			388,809	453,421	456,121	432,862	452,138	449,137	217,926	280,538	213,350	214,100
Sewer Fund												
GO Bonds, Series 2013A	2021		20,126	-	-	-	-	-	-	-	-	-
GO Bonds, Series 2021B	2028		-	91,675	78,390	55,845	53,595	53,100	52,515	55,350	-	-
GO Bonds, Series 2014A	2035		29,906	29,406	28,806	28,206	27,606	27,006	26,406	25,806	25,206	29,531
GO Bonds, Series 2016A	2037		7,319	7,256	7,194	7,113	7,013	6,913	6,813	6,713	6,613	6,506
GO Bonds, Series 2018A	2039		16,594	16,294	15,994	15,694	15,394	15,094	14,794	14,494	14,194	13,894
GO Bonds, Series 2021A	2042		-	6,222	20,375	20,225	20,075	19,925	19,775	24,600	24,400	24,180
GO Bonds, Series 2024*	2045*		-	-	-	-	15,147	14,827	14,507	14,187	13,867	13,547
GO Bonds, Series 2027*	2048*		-	-	-	-	-	-	-	30,293	29,653	29,013
GO Bonds, Series 2030*	2050*		-	-	-	-	-	-	-	-	-	-
Total Principal and Interest Payments			73,945	150,853	150,759	127,083	138,830	136,865	134,810	171,443	113,933	116,671
Stormwater Fund												
GO Bonds, Series 2014A	2035		38,413	37,788	37,038	36,288	35,538	39,713	38,813	37,913	37,013	36,113
GO Bonds, Series 2016A	2037		7,444	7,381	7,319	7,238	7,138	7,038	6,938	6,838	6,738	6,631
GO Bonds, Series 2018A	2039		16,431	16,131	15,831	15,531	15,231	14,931	14,631	14,331	14,031	13,731
GO Bonds, Series 2021A	2042		-	3,197	2,775	2,700	2,600	2,500	2,400	2,300	2,200	2,090
GO Bonds, Series 2024*	2045*		-	-	-	-	16,093	15,753	15,413	15,073	14,733	14,393
GO Bonds, Series 2027*	2048*		-	-	-	-	-	-	-	30,293	29,653	29,013
GO Bonds, Series 2030*	2050*		-	-	-	-	-	-	-	-	-	-
Total Principal and Interest Payments		\$	62,288	\$ 64,497	\$ 62,963	\$ 61,757	\$ 76,600	\$ 79,935	\$ 78,195	\$ 106,748	\$ 104,368	\$ 101,971

* 2024, 2027 and 2030 GO Bonds maturity dates and payment schedules are estimated