



UTILITY RATE STUDY

WATER, SEWER, AND STORM WATER

CITY OF OREM, UTAH

SEPTEMBER 2021





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SECTION I: EXECUTIVE SUMMARY

The City of Orem (“City”) commissioned Lewis Young Robertson & Burningham, Inc. (“LYRB”) to review the existing water, sewer, and storm water utility fees (or rates) and provide a recommended rate schedule based on changes in forecasted expenses, capital improvements and bonding needs. The primary objectives of the rate analyses were to ensure sufficient revenues to cover all operation and maintenance (“O&M”) expenses, maintain bond covenants, ensure appropriate debt service coverage ratios, and provide sufficient revenue to fund the proposed projects identified in the Master Plan and Capital Improvement Plan (“CIP”). A review of projected revenues under the existing rate structure relative to proposed expenses illustrated that the City, with bonding, would have revenues to fund the needed capital improvements. The following summarizes the findings for each enterprise fund.

WATER

We recommend a proposed rate decrease in usage rates in year 1 with minimal increases thereafter to the base rate and usage rate as shown in **Tables 1.1 and 1.2**. This rate structure is designed to fund the proposed CIP, necessary O&M and other expenses forecasted within the planning horizon.

TABLE 1.1: ILLUSTRATION OF PROPOSED WATER BASE RATE (COST PER CONNECTION)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
0.75	\$20.20	\$20.20	\$20.30	\$20.45	\$20.66	\$20.92
1	\$39.22	\$39.22	\$39.42	\$39.61	\$39.81	\$40.01
1.5	\$110.42	\$110.42	\$110.97	\$111.53	\$112.08	\$112.65
2	\$181.64	\$181.64	\$182.55	\$183.46	\$184.38	\$185.30
3	\$276.59	\$276.59	\$277.97	\$279.36	\$280.76	\$282.16
4	\$466.48	\$466.48	\$468.81	\$471.16	\$473.51	\$475.88
6	\$1,178.58	\$1,178.58	\$1,184.47	\$1,190.40	\$1,196.35	\$1,202.33
8	\$1,574.21	\$1,574.21	\$1,582.08	\$1,589.99	\$1,597.94	\$1,605.93
10	\$2,361.32	\$2,361.32	\$2,373.13	\$2,384.99	\$2,396.92	\$2,408.90

TABLE 1.2: ILLUSTRATION OF PROPOSED WATER USAGE RATE (COST PER 1,000 GALLONS)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Tier 1	\$0.98	\$0.83	\$0.84	\$0.85	\$0.86	\$0.88
Tier 2	\$1.22	\$1.04	\$1.05	\$1.06	\$1.08	\$1.10
Tier 3	\$1.45	\$1.23	\$1.24	\$1.26	\$1.28	\$1.30
Tier 4	\$1.94	\$1.46	\$1.47	\$1.49	\$1.51	\$1.54

SEWER

The sewer fund analysis illustrates that the utilization of 2021 bond proceeds and existing fund balance will result in metrics that approximate the target amounts. As a result, the City did not increase rates in 2022 and will only implement minimal increases thereafter, as outlined in **Table 1.3**.

TABLE 1.3: ILLUSTRATION OF PROPOSED SEWER RATE ADJUSTMENTS

DEMAND	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
City Base Rate (per Connection/Month)	\$12.33	\$12.33	\$12.39	\$12.48	\$12.61	\$12.77
City Production Rate (per 1,000 Gal)	\$2.53	\$2.53	\$2.56	\$2.59	\$2.63	\$2.67



STORM WATER

A review of projected revenues under the existing rate structure relative to proposed expenses illustrated that the City would not have sufficient revenues to fund the needed capital improvements without a rate increase and an additional \$13 million bond in FY 2024. Thus, minimal rate increases, as outlined in **Table 1.4**, are recommended.

TABLE 1.4: ILLUSTRATION OF PROPOSED STORM WATER RATE ADJUSTMENTS

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Usage Charge (per month)	\$7.60	\$7.80	\$8.00	\$8.20	\$8.40	\$8.60

SECTION II: GENERAL RATE METHODOLOGY

This study analyzes the proposed rate increases necessary to meet current and future debt obligations, while ensuring revenue sufficiency for capital improvements, the funding of depreciation (repair and replacement) and existing bond covenants. The City has existing bonds outstanding for the water, sewer and storm water utilities. Therefore, an analysis of debt coverage is included in this study. The recommendations presented in this study are based on reasonable planning, cost, and demand projections. Any proposed rate increase is designed to recover the costs necessary to maintain a viable utility, while balancing economic and sustainability concerns.

GENERAL RATE OBJECTIVES

The following objectives were identified by the City, which served as the foundation of the rate update and scenario analysis.

1. Ensure sufficient revenues to cover all operation and maintenance expenses while maintaining bond covenants and the appropriate debt coverage ratio of at least 1.25x.
2. Continue to fund capital improvements in the 5-year window using rate revenues, while minimizing future bonding needs and maintaining approximately 365 Days of Working Capital.
3. The rates should evaluate a policy to maintain the existing rate structure based on a base rate assessment and any usage fees.
4. Finally, the proposed rate recommendations should be implementable and equitably distribute cost relative to demand.

RATE DETERMINATION METHODOLOGY

Based on the above objectives, the water rate analysis has been divided into the following three phases:

1. **Revenue Growth Analysis:** LYRB studied existing revenue data and growth projections provided by the City. This information was then analyzed to determine the potential allocation of new accounts and the revenue potential within each utility.
2. **Cost of Service Analysis:** The cost-of-service analysis is structured to balance revenue sufficiency with future operating and maintenance costs, contracts, repair and replacement, capital expenditures, funding for current system deficiencies and bond service coverage ratios. Expenses were projected out to 2031 and revenues were analyzed under a variety of scenarios to meet the City's needs.
3. **Rate Design Analysis:** The final phase focuses on structuring rates that will collect the necessary revenues based on the City's budgetary needs and rate objectives.

SECTION III: WATER ENTERPRISE FUND ANALYSIS

DEMAND UNITS

The demand units in this analysis are connections and projected water use. According to information provided by the City, there were 22,700 system connections in 2021. The City has projected connections based on an annual growth rate of 0.50 percent as shown in **Table 3.1**, resulting in a total of 23,273 connections by 2026. Historic and projected usage data by tier is shown in **Table 3.2** and was used to calculate overage charges. For purposes of this analysis a one percent decrease in usage through 2026 was assumed based on water use and conservation.

TABLE 3.1: CITY-WIDE GROWTH PROJECTIONS

(FY)	TOTAL CONNECTIONS	GROWTH IN CONNECTIONS	(FY)	TOTAL CONNECTIONS	GROWTH IN CONNECTIONS
2021	22,700		2024	23,042	0.50%
2022	22,813	0.50%	2025	23,157	0.50%
2023	22,928	0.50%	2026	23,273	0.50%

TABLE 3.2: HISTORIC AND PROJECTED USAGE DATA BY TIER (MEASURED IN 1,000 GALLONS)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Tier 1	2,624,185	2,597,943	2,571,964	2,546,244	2,520,782	2,495,574
Tier 2	2,093,845	2,072,907	2,052,178	2,031,656	2,011,339	1,991,226
Tier 3	1,021,387	1,011,173	1,001,061	991,051	981,140	971,329
Tier 4	839,684	831,287	822,974	814,745	806,597	798,531

Source: City of Orem

HISTORIC AND PROJECTED REVENUES

PROJECTED OPERATING REVENUES

Utilizing the growth estimates shown above, LYRB forecasted the potential revenues generated from current service charges, assuming no future rate increases or decreases. The City desired to maintain a rate structure based on a base rate assessment and a usage fee.

TABLE 3.3: HISTORIC OPERATING REVENUES

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total Operating Revenue	\$15,547,544	\$18,355,800	\$18,934,096	\$20,821,417	\$19,041,394

Source: City of Orem Financial Statements

For the purposes of this analysis, beginning in FY 2021 contributions from the general fund are removed as a revenue item as well as the corresponding transfers to the general fund as an expense item.

Table 3.4 illustrates the projected revenues, assuming no rate changes in the five-year planning horizon. Year 1 revenues are projected to be lower than what is shown in prior years due to a reduction in Miscellaneous Revenue (Metro Water) and the removal of the Water Fee Contribution, which has a corresponding transfer out (expense) that is also removed.

TABLE 3.4: PROJECTED OPERATING REVENUES (NO RATE INCREASE)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Projected Operating Revenues	\$17,850,265	\$17,831,773	\$17,814,783	\$17,799,300	\$17,785,331

PROJECTED NON-OPERATING REVENUES

Historic non-operating revenues are primarily comprised of impact fee revenues and interest revenues. The City anticipates collecting impact fees from new development within the impact fee service area in the five-year planning horizon. The model assumes approximately 115 new ERCs per year that will be assessed an impact fee of \$900. Investment earnings are calculated based on a 1.5 percent interest rate on any fund balance carry-over within the enterprise fund. Historic and projected total non-operating revenues are shown in **Tables 3.5 and 3.6**. Future impact fee expenditures are accounted for in the capital improvement plan, and interest expense is accounted for under the debt service analysis later in this section.

TABLE 3.5: HISTORIC NON-OPERATING REVENUES

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Investment Earnings	143,794	308,985	593,920	542,809	548,237
Gain (Loss) on Sale of Capital Assets	33,525	52,569	5,346	(17,628)	(17,804)
Impact Fee Expenditures	(100,101)	(1,183,268)	(1,360,079)	(767,866)	-
Interest Expense	(328,926)	(345,213)	(325,379)	(303,705)	-
Impact Fee Revenues	-	-	-	-	-
Total Non-Operating Revenue	(\$251,708)	(\$1,166,927)	(\$1,086,192)	(\$546,390)	\$530,433

TABLE 3.6: PROJECTED NON-OPERATING REVENUE

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Investment Earnings	448,500	416,420	326,116	307,457	281,830
Gain (Loss) on Sale of Capital Assets	(17,982)	(18,162)	(18,344)	(18,527)	(18,712)
Impact Fee Expenditures	-	-	-	-	-
Interest Expense	-	-	-	-	-
Impact Fee Revenues	\$102,150	\$102,660	\$103,174	\$103,690	\$104,208
Total Non-Operating Revenues (Expenses)	\$532,667	\$500,918	\$410,946	\$392,620	\$367,325

WATER COST OF SERVICE ANALYSIS

This analysis considers historic revenues and expenses during the period from FY 2017 through FY 2021, and forecasts revenues and expenditures through a five-year planning horizon. Projected cash flows for the water utility were analyzed to ensure that the City's objectives are met – to ensure revenue sufficiency to cover O&M while maintaining bond covenants and the appropriate debt coverage ratio; fund all necessary capital improvements; and provide an appropriate fund balance according to the City's existing budget policies.

COSTS TO BE RECOVERED THROUGH SERVICE CHARGES

OPERATIONS AND MAINTENANCE

General O&M expenses are incurred through the normal day-to-day operations of the water system. These expenses can include costs such as wages and salaries, benefits, utility costs and supplies. These costs can be variable based on fluctuations in water flows. At the request of the City, a three percent increase in operations and maintenance expenses is applied for purposes of forecasting expenses.



TABLE 3.7: HISTORIC OPERATIONS AND MAINTENANCE EXPENSES

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel Services	(2,172,584)	(2,173,854)	(2,536,949)	(2,446,818)	(2,520,223)
Supplies and Maintenance	(713,247)	(842,855)	(807,759)	(729,684)	(751,575)
Administrative Fee	(1,131,456)	(1,197,045)	(1,330,443)	(1,452,347)	(1,461,607)
Utilities	(586,867)	(449,091)	(645,310)	(622,432)	(641,105)
Contract Services	(3,471,770)	(3,670,352)	(3,502,523)	(3,654,139)	(4,960,438)
Equipment Lease and Rentals	(46,009)	(45,589)	(26,062)	(48,638)	(50,097)
Insurance	(156,240)	(158,740)	(158,740)	(178,740)	(184,102)
Changes in Lieu of Property Tax	(71,787)	(71,787)	(71,787)	(71,787)	(73,941)
Depreciation Expense	(2,114,504)	(2,292,808)	(2,450,650)	(2,598,250)	(2,676,198)
Miscellaneous	(127,588)	(140,386)	(145,765)	(164,805)	(169,749)
Total Operating Expense	(\$10,592,052)	(\$11,042,507)	(\$11,675,988)	(\$11,967,640)	(\$13,489,034)

Source: City of Orem Financial Statements, Orem City, Estimated for FY 2021

TABLE 3.8: PROJECTED OPERATION AND MAINTENANCE EXPENSES

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Personnel Services	(2,595,829)	(2,673,704)	(2,753,915)	(2,836,533)	(2,921,629)
Supplies and Maintenance	(774,122)	(797,345)	(821,266)	(845,904)	(871,281)
Administrative Fee	(1,457,641)	(1,453,779)	(1,450,020)	(1,446,363)	(1,442,808)
Utilities	(660,338)	(680,148)	(700,553)	(721,569)	(743,216)
Contract Services	(5,199,615)	(5,330,268)	(5,465,557)	(5,605,667)	(5,765,794)
Equipment Lease and Rentals	(51,600)	(53,148)	(54,742)	(56,385)	(58,076)
Insurance	(189,625)	(195,314)	(201,173)	(207,209)	(213,425)
Changes in Lieu of Property Tax	(76,159)	(78,444)	(80,797)	(83,221)	(85,717)
Depreciation Expense	-	-	-	-	-
Miscellaneous	(174,842)	(180,087)	(185,489)	(191,054)	(196,786)
Total Operating Expense	(\$11,179,771)	(\$11,442,238)	(\$11,713,513)	(\$11,993,905)	(\$12,298,733)

Depreciation is removed from future year expenditures as a non-cash item. Instead, the analysis includes all projected capital expenditure needs.

CAPITAL PROJECTS

Capital projects must be constructed to update and expand the water system. Capital project costs may be paid through cash reserves, impact fees or debt financing. If the City is able to accumulate sufficient cash reserves and chooses to use these reserves to fund capital projects, the need for debt financing may be mitigated. In this analysis, several projects are identified that must be constructed through 2026 and beyond. **Table 3.9** summarizes the total proposed capital improvement estimated construction costs. The City's Master Plan provides details for the proposed CIP.

TABLE 3.9: SUMMARY OF CAPITAL PROJECT COSTS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Capital Improvement Project Costs	(\$32,410,593)	(\$10,353,101)	(\$5,200,059)	(\$5,356,060)	(\$5,516,742)

See Orem City Water Master Plan

FUNDING OF DEPRECIATION (REPAIR AND REPLACEMENT)

Funding depreciation in the proposed rate structure, or adopting a formal repair and replacement plan, will reduce the City's need to issue future debt, and will therefore decrease future interest expense and help the City avoid abrupt rate increases to fund unforeseen expenses. The City's CIP includes both growth related projects and repair/replacement projects. Thus, an additional allocation in the CIP for depreciation is not included in this analysis.

DEBT SERVICE COSTS

The City issued the 2021A Water, Sewer and Storm Revenue Bonds. The Series 2021A Bonds were used to finance the construction of improvements to the City's water, sewer, and storm sewer systems; and pay certain costs of issuing the Series 2021A Bonds. The other remaining outstanding bonds include the Series 2005B Bonds, the Series 2010 Bonds, the Series 2013 Refunding Bonds (refunding of Series 2005A Bonds) and the Series 2016 Refunding Bonds (refunding of the Series 2008 Bonds). While the combined water, sewer and storm revenues serve as a security for the outstanding debt, for the purposes of this analysis, the debt service is allocated to the applicable fund where the bond proceeds were applied. The 2005B Bonds are allocated the water fund and the 2010 Bonds are allocated to the sewer fund. 66.5 percent of the 2013 Refunding Bonds are allocated to water, with the remaining 33.5 percent allocated to storm. The 2016 Refunding Bonds are allocated to the water fund. The Series 2021A Water, Sewer and Storm Revenue Bonds are allocated according to the following distribution: 71 percent to water, 24 percent to sewer, and six percent to storm.

The sum of the outstanding bonds related to the water system is shown in **Table 3.10**. This analysis includes the principal and interest payments associated with these bonds when determining revenue sufficiency and debt coverage ratios. As stated in Section II, this analysis is designed to ensure sufficient revenues to cover all operation and maintenance expenses while maintaining bond covenants and the appropriate debt coverage ratio of at least 1.25x.

TABLE 3.10: OUTSTANDING WATER DEBT SERVICE

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Existing Debt Service	(\$1,967,735)	(\$2,660,385)	(\$2,659,871)	(\$2,655,313)	(\$2,651,385)

BASELINE SCENARIO ANALYSIS

Utilizing the assumptions above, LYRB evaluated the water enterprise fund, assuming no future rate adjustments. As shown below, the utilization of bond proceeds and existing fund balance will result in metrics that may exceed the target amounts. As a result, rate adjustments are warranted.

TABLE 3.11: BASELINE WATER UTILITY FUND ANALYSIS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$17,850,265	\$17,831,773	\$17,814,783	\$17,799,300	\$17,785,331
Total Operating Expense	(\$11,179,771)	(\$11,442,238)	(\$11,713,513)	(\$11,993,905)	(\$12,298,733)
Total Non-Operating Revenue	\$532,667	\$500,918	\$410,946	\$392,620	\$367,325
Total DS	(\$1,967,735)	(\$2,660,385)	(\$2,659,871)	(\$2,655,313)	(\$2,651,385)
Total Bond Proceeds	\$24,934,703	-	-	-	-
Total CIP	(\$32,410,593)	(\$10,353,101)	(\$5,200,059)	(\$5,356,060)	(\$5,516,742)
Net Income (Loss) Before Transfers	(\$2,240,465)	(\$6,123,033)	(\$1,347,714)	(\$1,813,359)	(\$2,314,204)
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	\$176,176	\$177,938	\$179,718	\$181,515	\$183,330
Transfers Out	(\$74,411)	(\$75,155)	(\$75,907)	(\$76,666)	(\$77,433)
Change in Net Position after Transfers and Contributions	(\$2,138,699)	(\$6,020,250)	(\$1,243,904)	(\$1,708,510)	(\$2,208,307)



	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Beginning Fund Balance	\$29,900,000	\$27,761,301	\$21,741,051	\$20,497,147	\$18,788,637
Ending Fund Balance (Unrestricted)	\$27,761,301	\$21,741,051	\$20,497,147	\$18,788,637	\$16,580,330
Days of Working Capital	906	694	639	572	492
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	3.66	2.59	2.45	2.33	2.21
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25

WATER RATE DESIGN ANALYSIS

The City commissioned LYRB to review the existing water utility fees (or rates) and provide a recommended rate schedule based on changes in forecasted expenses, capital improvements and bonding needs. The primary objectives of the rate analysis were to ensure sufficient revenues to cover all O&M expenses, maintain bond covenants, ensure the appropriate debt service coverage ratio, and provide sufficient revenue to fund the proposed projects identified in the Master Plan and CIP. A review of projected revenues under the existing rate structure relative to proposed expenses illustrated that the City would have surplus revenues to fund the needed capital improvements. Thus, we recommend a proposed decrease in usage rates in Year 1 with minimal increases thereafter to the base rate and usage rate as shown in the tables below. The rate structure shown below is designed to fund the proposed CIP, necessary O&M and other expenses forecasted within the planning horizon.

TABLE 3.12: ILLUSTRATION OF PROPOSED WATER BASE RATE (COST PER CONNECTION)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
0.75	\$20.20	\$20.20	\$20.30	\$20.45	\$20.66	\$20.92
1	\$39.22	\$39.22	\$39.42	\$39.61	\$39.81	\$40.01
1.5	\$110.42	\$110.42	\$110.97	\$111.53	\$112.08	\$112.65
2	\$181.64	\$181.64	\$182.55	\$183.46	\$184.38	\$185.30
3	\$276.59	\$276.59	\$277.97	\$279.36	\$280.76	\$282.16
4	\$466.48	\$466.48	\$468.81	\$471.16	\$473.51	\$475.88
6	\$1,178.58	\$1,178.58	\$1,184.47	\$1,190.40	\$1,196.35	\$1,202.33
8	\$1,574.21	\$1,574.21	\$1,582.08	\$1,589.99	\$1,597.94	\$1,605.93
10	\$2,361.32	\$2,361.32	\$2,373.13	\$2,384.99	\$2,396.92	\$2,408.90

TABLE 3.13: BASE RATE PROPOSED RATE INCREASE (PERCENT)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
0.75	0.0%	0.50%	0.75%	1.00%	1.25%
1	0.0%	0.50%	0.50%	0.50%	0.50%
1.5	0.0%	0.50%	0.50%	0.50%	0.50%
2	0.0%	0.50%	0.50%	0.50%	0.50%
3	0.0%	0.50%	0.50%	0.50%	0.50%
4	0.0%	0.50%	0.50%	0.50%	0.50%
6	0.0%	0.50%	0.50%	0.50%	0.50%
8	0.0%	0.50%	0.50%	0.50%	0.50%
10	0.0%	0.50%	0.50%	0.50%	0.50%



TABLE 3.14: ILLUSTRATION OF PROPOSED WATER USAGE RATE (COST PER 1,000 GALLONS)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Tier 1	\$0.98	\$0.83	\$0.84	\$0.85	\$0.86	\$0.88
Tier 2	\$1.22	\$1.04	\$1.05	\$1.06	\$1.08	\$1.10
Tier 3	\$1.45	\$1.23	\$1.24	\$1.26	\$1.28	\$1.30
Tier 4	\$1.94	\$1.46	\$1.47	\$1.49	\$1.51	\$1.54

TABLE 3.15: PROPOSED WATER USAGE RATE INCREASE (PERCENT)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Tier 1	-15%	1.00%	1.25%	1.50%	1.75%
Tier 2	-15%	1.00%	1.25%	1.50%	1.75%
Tier 3	-15%	1.00%	1.25%	1.50%	1.75%
Tier 4	-25%	1.00%	1.25%	1.50%	1.75%

The comparison of revenues and expenditures under the proposed rate decrease in Year 1, with inflationary increases thereafter (see **Table 3.16**), illustrates that the City will be able to provide adequate funding for capital improvement and replacement projects according to the proposed CIP, while maintaining adequate fund balances and debt coverage. This analysis includes the 2021A Bond proceeds to fund proposed capital improvements. This allows the City to achieve the Year 1 rate decreases.

TABLE 3.16: SUMMARY PRO FORMA

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$16,465,920	\$16,571,422	\$16,706,213	\$16,870,785	\$17,065,852
Total Operating Expense	(\$11,041,337)	(\$11,316,203)	(\$11,602,656)	(\$11,901,053)	(\$12,226,785)
Total Non-Operating Revenue	\$532,667	\$482,229	\$374,962	\$341,130	\$302,529
Total DS	(\$1,967,735)	(\$2,660,385)	(\$2,659,871)	(\$2,655,313)	(\$2,651,385)
Total Bond Proceeds	\$24,934,703	-	-	-	-
Total CIP	(\$32,410,593)	(\$10,353,101)	(\$5,200,059)	(\$5,356,060)	(\$5,516,742)
Net Income (Loss) Before Transfers	(\$3,486,374)	(\$7,276,037)	(\$2,381,411)	(\$2,700,511)	(\$3,026,532)
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	\$176,176	\$177,938	\$179,718	\$181,515	\$183,330
Transfers Out	(\$74,411)	(\$75,155)	(\$75,907)	(\$76,666)	(\$77,433)
Change in Net Position after Transfers and Contributions	(\$3,384,609)	(\$7,173,254)	(\$2,277,601)	(\$2,595,663)	(\$2,920,634)
Beginning Fund Balance	\$29,900,000	\$26,515,391	\$19,342,137	\$17,064,536	\$14,468,873
Ending Fund Balance (Unrestricted)	\$26,515,391	\$19,342,137	\$17,064,536	\$14,468,873	\$11,548,239
Days of Working Capital	877	624	537	444	345
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	3.03	2.16	2.06	2.00	1.94
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25

The proposed rate structure will meet the City's objective to achieve 365 days of "Working Capital" at the end of the planning horizon. The City should conduct an annual review of the financial performance of each enterprise fund and reevaluate the proposed rates within three to five years. A detailed pro forma can be found in **Appendix A**.

SECTION IV: SEWER ENTERPRISE FUND ANALYSIS

DEMAND UNITS

The demand units in this analysis are connections and projected production. According to information provided by the City, there were 35,208 system connections in 2021. The City has projected connections based on an annual growth rate of 0.50 percent as shown in **Table 4.1**, resulting in a total of 36,097 connections by 2026. Projected production data is also shown in **Table 4.1**. This data was used to calculate production charges. For the purposes of this analysis a zero percent growth in usage was assumed which assumes water conservation, leading to less impact on the sewer system.

TABLE 4.1: CITY-WIDE GROWTH PROJECTIONS (PRODUCTION MEASURED IN 1,000 GALLONS)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth in Connections		0.50%	0.50%	0.50%	0.50%	0.50%
Connections	35,208	35,384	35,561	35,738	35,917	36,097
City Production (in Thousands)	2,770,680	2,770,680	2,770,680	2,770,680	2,770,680	2,770,680

HISTORIC AND PROJECTED OPERATING REVENUES

PROJECTED OPERATING REVENUES

Utilizing the growth estimates shown above, LYRB forecasted the potential revenues generated from current service charges, as shown below. The City desired to maintain a rate structure based on a base rate assessment and a production fee. **Table 4.3** illustrates the projected revenues, assuming no rate changes in the five-year planning horizon. Year 1 revenues are projected to increase slightly due to growth in connections.

TABLE 4.2: HISTORIC OPERATING REVENUES

OPERATING REVENUES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total Operating Revenue	\$8,619,099	\$9,678,758	\$11,519,137	\$13,070,784	\$13,148,027

Source: City of Orem Financial Statements

For the purposes of this analysis, beginning in FY 2021 contributions from the general fund are removed as a revenue item as well as the corresponding transfers to the general fund as an expense item.

TABLE 4.3: PROJECTED OPERATING REVENUES (NO RATE INCREASE)

OPERATING REVENUES	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Projected Operating Revenues	\$13,190,970	\$13,234,501	\$13,278,634	\$13,323,384	\$13,368,764

PROJECTED NON-OPERATING REVENUES

Historic non-operating revenues are primarily comprised of impact fee revenues and interest revenues. The City has realized sewer impact fee revenue collections in the past and anticipates collecting impact fee revenues in the five-year planning horizon from new development. The model assumes approximately 115 new ERCs per year that will be assessed an impact fee of \$790. Investment earnings are calculated based on a 1.5 percent interest rate on any fund balance carry-over within the enterprise fund. Historic and projected total non-operating revenues are shown in **Tables 4.4 and 4.5**.

TABLE 4.4: HISTORIC NON-OPERATING REVENUES

NON-OPERATING REVENUES (EXPENSES)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Investment Earnings	64,461	135,232	270,382	290,071	292,972



NON-OPERATING REVENUES (EXPENSES)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Gain (Loss) on Sale of Capital Assets	39,470	9,500	1,769	(7,982)	(8,062)
Impact Fee Expenditures		(178,507)	(195,051)	(196,888)	-
Interest Expense		-	-	-	-
Impact Fee Revenues	-	-	-	-	-
Total Non-Operating Revenue	\$103,931	(\$33,775)	\$77,100	\$85,201	\$284,910

TABLE 4.5: PROJECTED NON-OPERATING REVENUE

NON-OPERATING REVENUES (EXPENSE)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Investment Earnings	174,000	140,025	142,343	136,629	124,583
Gain (Loss) on Sale of Capital Assets	(8,142)	(8,224)	(8,306)	(8,389)	(8,473)
Impact Fee Expenditures	-	-	-	-	-
Interest Expense	-	-	-	-	-
Impact Fee Revenues	89,665	90,113	90,564	91,016	91,472
Total Non-Operating Revenues (Expenses)	\$255,522	\$221,914	\$224,601	\$219,256	\$207,582

SEWER COST OF SERVICE ANALYSIS

This analysis considers historic revenues and expenses during the period from FY 2017 through FY 2021, and forecasts revenues and expenditures through a five-year planning horizon. Projected cash flows for the sewer utility were analyzed to ensure that the City's objectives are met – to ensure revenue sufficiency to cover O&M while maintaining bond covenants and the appropriate debt coverage ratio; fund all necessary capital improvements; and provide an appropriate fund balance according to the City's existing budget policies.

COSTS TO BE RECOVERED THROUGH SERVICE CHARGES

OPERATIONS AND MAINTENANCE

General O&M expenses are incurred through the normal day-to-day operations of the sewer system. These expenses can include costs such as wages and salaries, benefits, utility costs and supplies. These costs can be variable based on fluctuations in production. At the request of the City, a three percent increase in operations and maintenance expenses is applied for purposes of forecasting expenses.

TABLE 4.6: HISTORIC OPERATIONS AND MAINTENANCE EXPENSES

OPERATING EXPENSE	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel Services	(2,087,285)	(2,151,919)	(2,203,780)	(2,255,001)	(2,322,651)
Supplies and Maintenance	(650,143)	(653,966)	(708,953)	(671,779)	(700,000)
Administrative Fee	(666,216)	(724,066)	(799,876)	(891,001)	(897,080)
Utilities	(699,567)	(672,225)	(737,286)	(615,903)	(700,000)
Contract Services	(623,392)	(667,549)	(665,490)	(729,261)	(751,139)
Equipment Lease and Rentals	(6,958)	(15,036)	(2,028)	(2,335)	(2,405)
Insurance	(115,080)	(117,580)	(117,580)	(132,580)	(136,557)
Charges in Lieu of Property Tax	(52,665)	(52,665)	(52,665)	(52,665)	(54,245)
Depreciation Expense	(1,703,885)	(1,742,179)	(1,878,848)	(1,831,040)	(1,885,971)



OPERATING EXPENSE	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Miscellaneous	(118,203)	(141,446)	(155,527)	(162,219)	(167,086)
Total Operating Expense	(\$6,723,394)	(\$6,938,631)	(\$7,322,033)	(\$7,343,784)	(\$7,617,134)

Source: City of Orem Financial Statements, Orem City, Estimated for FY 2021

TABLE 4.7: PROJECTED OPERATION AND MAINTENANCE EXPENSES

OPERATING EXPENSE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Personnel Services	(2,392,331)	(2,464,100)	(2,538,023)	(2,614,164)	(2,692,589)
Supplies and Maintenance	(721,000)	(742,630)	(764,909)	(787,856)	(811,492)
Administrative Fee	(899,685)	(902,303)	(904,933)	(907,577)	(910,234)
Utilities	(721,000)	(742,630)	(764,909)	(787,856)	(811,492)
Contract Services	(773,673)	(796,883)	(820,790)	(845,413)	(870,776)
Equipment Lease and Rentals	(2,477)	(2,552)	(2,628)	(2,707)	(2,788)
Insurance	(140,654)	(144,874)	(149,220)	(153,697)	(158,307)
Charges in Lieu of Property Tax	(55,872)	(57,548)	(59,275)	(61,053)	(62,885)
Depreciation Expense	-	-	-	-	-
Miscellaneous	(172,098)	(177,261)	(182,579)	(188,056)	(193,698)
Total Operating Expense	(\$5,878,790)	(\$6,030,781)	(\$6,187,266)	(\$6,348,380)	(\$6,514,261)

Depreciation is removed from future year expenditures as a non-cash item. Instead, the analysis includes all projected capital expenditure needs.

CAPITAL PROJECTS

Capital projects must be constructed to update and expand the sewer system. Capital project costs may be paid through cash reserves, impact fees or debt financing. If the City is able to accumulate sufficient cash reserves and chooses to use these reserves to fund capital projects, the need for debt financing may be mitigated. In this analysis, several projects are identified that must be constructed through 2026 and beyond. **Table 4.8** summarizes the total proposed capital improvement estimated construction costs. The City's Master Plan provides details for the proposed CIP.

TABLE 4.8: SUMMARY OF CAPITAL PROJECT COSTS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Capital Improvement Project Costs	(\$17,214,066)	(\$6,001,495)	(\$6,422,045)	(\$6,723,492)	(\$6,185,416)

See Orem City Sewer Master Plan

FUNDING OF DEPRECIATION (REPAIR AND REPLACEMENT)

Funding depreciation in the proposed rate structure, or adopting a formal repair and replacement plan, will reduce the City's need to issue future debt, and will therefore decrease future interest expense and help the City avoid abrupt rate increases to fund unforeseen expenses. The City's CIP includes both growth related projects and repair/replacement projects. Thus, an additional allocation in the CIP for depreciation is not included in this analysis.

DEBT SERVICE COSTS

The City issued the 2021A Water, Sewer and Storm Revenue Bonds. The Series 2021A Bonds were used to finance the construction of improvements to the City's water, sewer, and storm sewer systems and pay certain costs of issuing the Series 2021A Bonds. The other remaining outstanding bonds include the Series 2005B Bonds, the Series 2010 Bonds, the



Series 2013 Refunding Bonds (refunding of Series 2005A Bonds) and the Series 2016 Refunding Bonds (refunding of the Series 2008 Bonds). While the combined water, sewer and storm revenues serve as a security for the outstanding debt, for the purposes of this analysis, the debt service is allocated to the applicable fund where the bond proceeds were applied. The 2005B Bonds are allocated the water fund and the 2010 Bonds are allocated to the sewer fund. 66.5 percent of the 2013 Refunding Bonds are allocated to water, with the remaining 33.5 percent allocated to storm. The 2016 Refunding Bonds are allocated to the water fund. The Series 2021A Water, Sewer and Storm Revenue Bonds are allocated according to the following distribution: 71 percent to water, 24 percent to sewer, and six percent to storm.

The sum of the outstanding bonds related to the sewer system is shown in **Table 4.9**. This analysis includes the principal and interest payments associated with these bonds when determining revenue sufficiency and debt coverage ratios. As stated in Section II, this analysis is designed to ensure sufficient revenues to cover all operation and maintenance expenses while maintaining bond covenants and the appropriate debt coverage ratio of at least 1.25x.

TABLE 4.9: OUTSTANDING SEWER DEBT SERVICE

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Existing Debt Service	(\$805,273)	(\$1,039,925)	(\$1,042,925)	(\$1,039,550)	(\$1,040,800)

BASELINE SCENARIO ANALYSIS

Utilizing the assumptions above, LYRB evaluated the sewer enterprise fund, assuming no future rate increases. As shown below, the utilization of 2021 bond proceeds and existing fund balance will result in metrics that approximate the target amounts. As a result, the City did not increase rates in 2022 and will only implement minimal increases thereafter.

TABLE 4.10: BASELINE SEWER UTILITY FUND ANALYSIS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$13,190,970	\$13,234,501	\$13,278,634	\$13,323,384	\$13,368,764
Total Operating Expense	(\$5,878,790)	(\$6,030,781)	(\$6,187,266)	(\$6,348,380)	(\$6,514,261)
Total Non-Operating Revenue	\$255,522	\$221,914	\$224,601	\$219,256	\$207,582
Total DS	(\$805,273)	(\$1,039,925)	(\$1,042,925)	(\$1,039,550)	(\$1,040,800)
Total Bond Proceeds	\$8,414,000	-	-	-	-
Total CIP	(\$17,214,066)	(\$6,001,495)	(\$6,422,045)	(\$6,723,492)	(\$6,185,416)
Net Income (Loss) Before Transfers	(\$2,037,638)	\$384,214	(\$149,001)	(\$568,782)	(\$164,131)
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	-	-	-	-	-
Transfers Out	(\$227,376)	(\$229,650)	(\$231,946)	(\$234,266)	(\$236,609)
Change in Net Position after Transfers and Contributions	(\$2,265,014)	\$154,564	(\$380,947)	(\$803,048)	(\$400,740)
Beginning Fund Balance	\$11,600,000	\$9,334,986	\$9,489,550	\$9,108,602	\$8,305,555
Ending Fund Balance (Unrestricted)	\$9,334,986	\$9,489,550	\$9,108,602	\$8,305,555	\$7,904,815
Days of Working Capital	580	574	537	478	443
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	9.40	7.14	7.01	6.92	6.79
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25



SEWER RATE DESIGN ANALYSIS

The City commissioned LYRB to review the existing sewer utility fees (or rates) and provide a recommended rate schedule based on changes in forecasted expenses, capital improvements and bonding needs. The primary objectives of the rate analysis were to ensure sufficient revenues to cover all O&M expenses, maintain bond covenants, ensure the appropriate debt service coverage ratio, and provide sufficient revenue to fund the proposed projects identified in the Master Plan and CIP. As shown above, the utilization of 2021 bond proceeds and existing fund balance will result in metrics that approximate the target amounts. As a result, the City did not increase rates in 2022 and may only implement minimal increases as outlined in **Tables 4.11** and **4.12** below.

TABLE 4.11: ILLUSTRATION OF SEWER RATE ADJUSTMENTS

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
City Base Rate (per Connection/Month)	\$12.33	\$12.33	\$12.39	\$12.48	\$12.61	\$12.77
City Production Rate (per 1,000 Gal)	\$2.53	\$2.53	\$2.56	\$2.59	\$2.63	\$2.67

TABLE 4.12: ILLUSTRATION OF SEWER RATE PERCENTAGE ADJUSTMENTS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
City Base Rate (per Connection/Month)	0.00%	0.50%	0.75%	1.00%	1.25%
City Production Rate (per 1,000 Gal)	0.00%	1.00%	1.25%	1.50%	1.75%

This analysis assumes an annual growth of 0.50 percent in connections over the next five years. Annual O&M expenditures increase by three percent annually. The comparison of revenues and expenditures, as shown in **Table 4.13**, illustrates that the City will be able to provide adequate funding for capital improvement and replacement projects according to the proposed CIP.

TABLE 4.13: SUMMARY PRO FORMA

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$13,190,970	\$13,330,907	\$13,503,527	\$13,709,944	\$13,951,530
Total Operating Expense	(\$5,878,790)	(\$6,040,422)	(\$6,209,755)	(\$6,387,036)	(\$6,572,538)
Total Non-Operating Revenue	\$255,522	\$221,914	\$225,902	\$223,613	\$217,223
Total DS	(\$805,273)	(\$1,039,925)	(\$1,042,925)	(\$1,039,550)	(\$1,040,800)
Total Bond Proceeds	\$8,414,000	-	-	-	-
Total CIP	(\$17,214,066)	(\$6,001,495)	(\$6,422,045)	(\$6,723,492)	(\$6,185,416)
Net Income (Loss) Before Transfers	(\$2,037,638)	\$470,979	\$54,705	(\$216,520)	\$369,998
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	-	-	-	-	-
Transfers Out	(\$227,376)	(\$229,650)	(\$231,946)	(\$234,266)	(\$236,609)
Change in Net Position after Transfers and Contributions	(\$2,265,014)	\$241,329	(\$177,242)	(\$450,786)	\$133,390
Beginning Fund Balance	\$11,600,000	\$9,334,986	\$9,576,315	\$9,399,073	\$8,948,287
Ending Fund Balance (Unrestricted)	\$9,334,986	\$9,576,315	\$9,399,073	\$8,948,287	\$9,081,677
Days of Working Capital	580	579	552	511	504
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	9.40	7.22	7.21	7.26	7.30
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25

The proposed rate structure will meet the City's objective to achieve a minimum of 365 days of "Working Capital" in the planning horizon. The City should conduct an annual review of the financial performance of each enterprise fund and reevaluate the proposed rates within three to five years. A detailed pro forma can be found in **Appendix B**.

SECTION V: STORM WATER ENTERPRISE FUND ANALYSIS

DEMAND UNITS

The demand units in this analysis are equivalent service units (ESUs). According to information provided by the City, there were 55,406 residential connections in 2021. The City is anticipating new growth of 0.50 percent annually within the storm water service area. This data was used to calculate revenue sufficiency based on existing rates.

TABLE 5.1: CITY-WIDE GROWTH PROJECTIONS

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Calculated ESUs	55,406	55,683	55,961	56,241	56,522	56,805
Growth in ESUs		0.50%	0.50%	0.50%	0.50%	0.50%

HISTORIC AND PROJECTED OPERATING REVENUES

PROJECTED OPERATING REVENUES

Utilizing the growth estimates shown above, LYRB forecasted the potential revenues generated from current service charges, as shown below. The City desired to maintain a rate structure based on a base residential rate assessment.

TABLE 5.2: HISTORIC OPERATING REVENUES

OPERATING REVENUES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Total Operating Revenue	\$4,001,972	\$4,350,123	\$4,775,819	\$5,050,924	\$5,100,928

Source: City of Orem Financial Statements, FY 2021 calculated by Orem City

For the purposes of this analysis, beginning in FY 2021 contributions from the general fund are removed as a revenue item as well as the corresponding transfers to the general fund as an expense item.

TABLE 5.3: PROJECTED OPERATING REVENUES (NO RATE INCREASES)

OPERATING REVENUES	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Projected Operating Revenues	\$5,126,672	\$5,152,548	\$5,178,555	\$5,204,695	\$5,230,967

PROJECTED NON-OPERATING REVENUES

Historic non-operating revenues are primarily comprised of investment earnings. Future investment earnings are calculated based on a 1.5 percent interest earnings on any fund balance carry-over within the enterprise fund. Historic and projected total non-operating revenues are shown in **Tables 5.4 and 5.5**.

TABLE 5.4: HISTORIC NON-OPERATING REVENUES

NON-OPERATING REVENUES (EXPENSES)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Investment Earnings	45,750	92,365	140,308	130,790	132,098
Gain (Loss) on Sale of Capital Assets	44,357	17,705	-	100	101
Impact Fee Expenditures		-	(6,252)	(15,597)	-
Interest Expense	(96,737)	(88,517)	(79,595)	(70,805)	-
Impact Fee Revenues	-	-	-	-	-
Total Non-Operating Revenue	(\$6,630)	\$21,553	\$54,461	\$44,488	\$132,199



TABLE 5.5: PROJECTED NON-OPERATING REVENUE

NON-OPERATING REVENUES (EXPENSES)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Investment Earnings	50,000	71,979	20,241	-	-
Gain (Loss) on Sale of Capital Assets	-	-	-	-	-
Impact Fee Expenditures	-	-	-	-	-
Interest Expense	-	-	-	-	-
Impact Fee Revenues	75,000	69,603	69,951	70,301	70,653
Total Non-Operating Revenue	\$125,000	\$141,582	\$90,192	\$70,301	\$70,653

STORM WATER COST OF SERVICE ANALYSIS

This analysis considers historic revenues and expenses during the period from FY 2017 through FY 2021, and forecasts revenues and expenditures through a five-year planning horizon. Projected cash flows for the storm water utility were analyzed to ensure that the City's objectives are met – to ensure revenue sufficiency to cover O&M while maintaining bond covenants and the appropriate debt coverage ratio; fund all necessary capital improvements; and provide an appropriate fund balance according to the City's existing budget policies.

COSTS TO BE RECOVERED THROUGH SERVICE CHARGES

OPERATIONS AND MAINTENANCE

General O&M expenses are incurred through the normal day-to-day operations of the storm water system. These expenses can include costs such as wages and salaries, benefits, utility costs and supplies. At the request of the City, a three percent increase in operations and maintenance expenses is applied for purposes of forecasting expenses.

TABLE 5.6: HISTORIC OPERATIONS AND MAINTENANCE EXPENSES

OPERATING EXPENSE	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Personnel Services	(726,348)	(818,058)	(913,029)	(1,049,671)	(1,081,161)
Supplies and Maintenance	(174,988)	(244,428)	(233,831)	(238,990)	(246,160)
Administrative Fee	(276,321)	(306,712)	(335,342)	(384,669)	(403,722)
Utilities	(6,017)	(8,229)	(6,216)	(7,953)	(8,192)
Contract Services	(189,487)	(220,845)	(338,666)	(330,961)	(340,890)
Equipment Lease and Rentals	(9,000)	(9,575)	(2,487)	(7,675)	(7,905)
Insurance	(46,680)	(48,180)	(48,180)	(55,180)	(56,835)
Charges in Lieu of Property Tax	(29,316)	(29,316)	(29,316)	(29,316)	(30,195)
Depreciation Expense	(751,842)	(719,150)	(764,195)	(845,561)	(870,928)
Miscellaneous	(64,911)	(74,624)	(80,180)	(83,395)	(85,897)
Total Operating Expense	(\$2,274,910)	(\$2,479,117)	(\$2,751,442)	(\$3,033,371)	(\$3,131,885)

Source: City of Orem Financial Statements, Orem City, Estimated for FY 2021



TABLE 5.7: PROJECTED OPERATION AND MAINTENANCE EXPENSES

OPERATING EXPENSE	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Personnel Services	(1,091,602)	(1,124,350)	(1,158,081)	(1,192,823)	(1,228,608)
Supplies and Maintenance	(367,343)	(378,363)	(389,714)	(401,406)	(413,448)
Administrative Fee	(361,944)	(364,483)	(367,035)	(369,600)	(372,177)
Utilities	(9,180)	(9,455)	(9,739)	(10,031)	(10,332)
Contract Services	(541,186)	(557,422)	(574,144)	(591,369)	(609,110)
Equipment Lease and Rentals	(5,000)	(5,150)	(5,305)	(5,464)	(5,628)
Insurance	(21,647)	(22,296)	(22,965)	(23,654)	(24,364)
Charges in Lieu of Property Tax	(29,316)	(30,195)	(31,101)	(32,034)	(32,995)
Depreciation Expense	-	-	-	-	-
Miscellaneous	(85,586)	(88,154)	(90,798)	(93,522)	(96,328)
Total Operating Expense	(\$2,512,804)	(\$2,579,869)	(\$2,648,882)	(\$2,719,902)	(\$2,792,989)

Depreciation is removed from future year expenditures as a non-cash item. Instead, the analysis includes all projected capital expenditure needs.

CAPITAL PROJECTS

Capital projects must be constructed to update and expand the storm water system. Capital project costs may be paid through cash reserves, impact fees or debt financing. If the City is able to accumulate sufficient cash reserves and chooses to use these reserves to fund capital projects, the need for debt financing may be mitigated. In this analysis, several projects are identified that must be constructed through 2026 and beyond. **Table 5.8** summarizes the total proposed capital improvement estimated construction costs. The City's Master Plan provides details for the proposed CIP.

TABLE 5.8: SUMMARY OF CAPITAL PROJECT COSTS

FIGURES REPRESENTED AS (EXPENSE)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Capital Improvement Project Costs	(\$5,340,684)	(\$5,423,989)	(\$4,996,746)	(\$5,737,765)	(\$4,640,493)

See Orem City Storm Master Plan. Includes fleet replacement and emergency repairs. CIP needs exceed expected revenues; thus, the City will need to utilize existing fund balances and bonding scenarios.

FUNDING OF DEPRECIATION (REPAIR AND REPLACEMENT)

Funding depreciation in the proposed rate structure, or adopting a formal repair and replacement plan, will reduce the City's need to issue future debt, and will therefore decrease future interest expense and help the City avoid abrupt rate increases to fund unforeseen expenses. The City's CIP includes both growth related projects and repair/replacement projects. Thus, an additional allocation in the CIP for depreciation is not included in this analysis.

DEBT SERVICE COSTS

The City issued the 2021A Water, Sewer and Storm Revenue Bonds. The Series 2021A Bonds were used to finance the construction of improvements to the City's water, sewer, and storm sewer systems; and pay certain costs of issuing the Series 2021A Bonds. The other remaining outstanding bonds include the Series 2005B Bonds, the Series 2010 Bonds, the Series 2013 Refunding Bonds (refunding of Series 2005A Bonds) and the Series 2016 Refunding Bonds (refunding of the Series 2008 Bonds). While the combined water, sewer and storm revenues serve as a security for the outstanding debt, for the purposes of this analysis, the debt service is allocated to the applicable fund where the bond proceeds were applied. The 2005B Bonds are allocated the water fund and the 2010 Bonds are allocated to the sewer fund. 66.5 percent of the 2013 Refunding Bonds are allocated to water, with the remaining 33.5 percent allocated to storm. The 2016 Refunding Bonds are allocated to the water fund. The Series 2021A Water, Sewer and Storm Revenue Bonds are allocated according to the following distribution: 71 percent to water, 24 percent to sewer, and six percent to storm.



The sum of the outstanding bonds related to the storm system is shown in **Table 5.9**. This analysis includes the principal and interest payments associated with these bonds when determining revenue sufficiency and debt coverage ratios. As stated in Section II, this analysis is designed to ensure sufficient revenues to cover all operation and maintenance expenses while maintaining bond covenants and the appropriate debt coverage ratio of at least 1.25x.

TABLE 5.9: OUTSTANDING STORM WATER DEBT SERVICE

FIGURES REPRESENTED AS (EXPENSE)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Existing Debt Service	(\$504,170)	(\$558,079)	(\$561,979)	(\$1,535,567)	(\$1,538,793)

BASELINE SCENARIO ANALYSIS

Utilizing the assumptions above, LYRB evaluated the storm enterprise fund, assuming no future rate increases. As shown below, the utilization of bond proceeds and existing fund balance will not meet the target fund balance and debt coverage ratios. As a result, the City anticipating the need to adjust rates through Year 5. In addition, future bonding may be needed.

TABLE 5.10: BASELINE STORM WATER UTILITY FUND ANALYSIS

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$5,126,672	\$5,152,548	\$5,178,555	\$5,204,695	\$5,230,967
Total Operating Expense	(\$2,512,804)	(\$2,579,869)	(\$2,648,882)	(\$2,719,902)	(\$2,792,989)
Total Non-Operating Revenue	\$125,000	\$141,582	\$90,192	\$70,301	\$70,653
Total DS	(\$504,170)	(\$558,079)	(\$561,979)	(\$559,873)	(\$563,099)
Total Bond Proceeds	\$2,000,000	-	-	-	-
Total CIP	(\$5,340,684)	(\$5,423,989)	(\$4,996,746)	(\$5,737,765)	(\$4,640,493)
Net Income (Loss) Before Transfers	(\$1,105,986)	(\$3,267,807)	(\$2,938,860)	(\$3,742,545)	(\$2,694,961)
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	-	-	-	-	-
Transfers Out	(\$179,571)	(\$181,367)	(\$183,181)	(\$185,012)	(\$186,863)
Change in Net Position after Transfers and Contributions	(1,285,557)	(3,449,174)	(3,122,041)	(3,927,557)	(2,881,824)
Beginning Fund Balance	6,084,126	4,798,569	1,349,394	(1,772,646)	(5,700,203)
Ending Fund Balance (Unrestricted)	\$4,798,569	\$1,349,394	(\$1,772,646)	(\$5,700,203)	(\$8,582,027)
Days of Working Capital	687	188	(241)	(754)	(1,106)
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	5.43	4.86	4.66	4.56	4.46
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25

STORM WATER RATE DESIGN ANALYSIS

The City commissioned LYRB to review the existing storm water utility fees (or rates) and provide a recommended rate schedule based on changes in forecasted expenses, capital improvements and bonding needs. The primary objectives of the rate analysis were to ensure sufficient revenues to cover all O&M expenses, maintain bond covenants, ensure the appropriate debt service coverage ratio, and provide sufficient revenue to fund the proposed projects identified in the Master Plan and CIP. A review of projected revenues under the



existing rate structure relative to proposed expenses illustrated that the City would not have sufficient revenues to fund the needed capital improvements without a significant rate increase or bond in 2024 as recommended in the 2021 Storm Water Master Plan. The recommended rate increases are outlined below in **Table 5.11**.

TABLE 5.11: ILLUSTRATION OF STORM WATER RATE ADJUSTMENTS

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Usage Charge Increase		2.60%	2.50%	2.50%	2.40%	2.40%
Usage Charge (per month)	\$7.60	\$7.80	\$8.00	\$8.20	\$8.40	\$8.60

This analysis assumes growth in storm water ESUs of 0.50 percent over the next five years. Annual O&M expenditures increase by three percent annually. The comparison of revenues and expenditures under the proposed rate increase, as shown in **Table 5.12**, illustrates that the City will be able to provide adequate funding for capital improvement and replacement projects according to the CIP with the new proposed rate increases and future bonding.

TABLE 5.12: SUMMARY PRO FORMA

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Operating Revenue	\$5,260,311	\$5,421,161	\$5,583,489	\$5,747,307	\$5,912,624
Total Operating Expense	(\$2,512,804)	(\$2,593,366)	(\$2,676,012)	(\$2,760,800)	(\$2,847,791)
Total Non-Operating Revenue	\$125,000	\$143,586	\$96,054	\$130,279	\$151,574
Total DS	(\$504,170)	(\$558,079)	(\$561,979)	(\$1,535,567)	(\$1,538,793)
Total Bond Proceeds	\$2,000,000	-	\$13,000,000	\$8,003,254	\$2,265,489
Total CIP	(\$5,340,684)	(\$5,423,989)	(\$4,996,746)	(\$5,737,765)	(\$4,640,493)
Net Income (Loss) Before Transfers	(\$972,348)	(\$3,010,687)	\$10,444,806	\$3,846,709	(\$697,390)
Contributions - Impact Fees & Developers	-	-	-	-	-
Transfers In	-	-	-	-	-
Transfers Out	(\$179,571)	(\$181,367)	(\$183,181)	(\$185,012)	(\$186,863)
Change in Net Position after Transfers and Contributions	(1,151,919)	(3,192,054)	10,261,626	3,661,696	(884,253)
Beginning Fund Balance	6,084,126	4,932,207	1,740,153	3,998,525	5,394,732
Ending Fund Balance (Unrestricted)	\$4,932,207	\$1,740,153	\$3,998,525	\$5,394,732	\$4,510,479
Days of Working Capital	707	242	538	703	570
Days of Working Capital (Target)	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	5.70	5.32	5.34	2.03	2.09
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25

As shown above, to fund proposed capital needs, the City will need to increase rates and utilize bonding in FY 2024. The City should continue to reevaluate rates each year to ensure revenue sufficiency.

The proposed rate structure will meet the City's objective to achieve 365 days of "Working Capital" in the planning horizon. The City should conduct an annual review of the financial performance of each enterprise fund and reevaluate the proposed rates within three to five years. A detailed pro forma can be found in **Appendix C**.

SECTION VI: EVALUATION OF PRICING OBJECTIVES

Several objectives were identified by the City, which serve as the foundation of the rate update and scenario analysis.

- ☞ First, the City wanted to ensure sufficient revenues to cover all operation and maintenance expenses while maintaining bond covenants and the appropriate debt coverage ratio of at least 1.25x.
- ☞ Second, the City wanted to continue to fund capital improvements in the five-year window using rate revenues, while minimizing future bonding needs and maintaining 365 Days of Working Capital.
- ☞ Third, the rates should evaluate a policy to maintain the existing rate structure.
- ☞ Finally, the proposed rate recommendations should be implementable and equitable.

EVALUATION OF EFFECTIVENESS OF RATE OBJECTIVES

- ☞ **Revenue Sufficiency:** The comparison of revenues and expenditures under the proposed rate increases illustrates that the City will continue to provide necessary funding for capital improvement and replacement projects according to the proposed CIP scenarios. The City issued the 2021A Water, Sewer and Storm Revenue Bonds. The Series 2021A Bonds were used to finance the construction of improvements to the City's water, sewer, and storm sewer systems; and pay certain costs of issuing the Series 2021A Bonds. The other remaining outstanding bonds include the Series 2005B Bonds, the Series 2010 Bonds, the Series 2013 Refunding Bonds (refunding of Series 2005A Bonds) and the Series 2016 Refunding Bonds (refunding of the Series 2008 Bonds). While the combined water, sewer and storm revenues serve as a security for the outstanding debt, for the purposes of this analysis, the debt service is allocated to the applicable fund where the bond proceeds were applied. The 2005B Bonds are allocated the water fund and the 2010 Bonds are allocated to the sewer fund. 66.5 percent of the 2013 Refunding Bonds are allocated to water, with the remaining 33.5 percent allocated to storm. The 2016 Refunding Bonds are allocated to the water fund. The Series 2021A Water, Sewer and Storm Revenue Bonds are allocated according to the following distribution: 71 percent to water, 24 percent to sewer, and six percent to storm. The analysis ensures sufficient coverage of these bonds within the planning horizon.
- ☞ **Funding Capital Costs and Maintaining Revenue Sufficiency:** The rate analysis considers necessary increases to adequately fund the repair and replacement of existing facilities, future capital costs and to maintain a fund balance at the end of each year utilizing a pay-as-you go approach. Each fund is able to do this.
- ☞ **Rate Structure:** The analysis did not include any structural changes to the rates.
- ☞ **Equity and Implementation:** The adopted rate calculations follow a reasonable methodology to promote conservation and ease of implementation.



APPENDIX A: DETAILED WATER PRO FORMA

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Revenues										
Water Sales	15,352,945	15,438,317	15,552,507	15,695,994	15,869,477	16,120,626	16,417,412	16,762,642	17,159,752	17,612,881
Water Sales - Bad Debt	(15,046)	(15,197)	(15,349)	(15,502)	(15,657)	(15,814)	(15,972)	(16,132)	(16,293)	(16,456)
Water Sales - Vineyard	450,000	463,500	477,405	491,727	506,479	521,673	537,324	553,443	570,047	587,148
Water Inspection Fees	20,733	20,940	21,149	21,361	21,574	21,790	22,008	22,228	22,450	22,675
Water Fees - Reconnect	44,323	44,767	45,214	45,666	46,123	46,584	47,050	47,521	47,996	48,476
Water Fees - Field Service	1,199	1,211	1,223	1,235	1,247	1,260	1,272	1,285	1,298	1,311
Water Fees - After Hours	3,111	3,142	3,174	3,206	3,238	3,270	3,303	3,336	3,369	3,403
Water Fees - Broken Lock/Illegal Conn.	1,054	1,064	1,075	1,086	1,097	1,108	1,119	1,130	1,141	1,152
Cont From - Fund 10 - Water Fee	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenue - Water	25,000	25,250	25,503	25,758	26,015	26,275	26,538	26,803	27,071	27,342
Miscellaneous Revenue - Metro Water	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenue - Personal Cell Phone	367	371	375	378	382	386	390	394	398	402
Water - Late Fees	477,651	482,427	487,251	492,124	497,045	502,016	507,036	512,106	517,227	522,399
Water Connection Fees	17,967	18,147	18,328	18,511	18,697	18,884	19,072	19,263	19,456	19,650
Water Connection Fees - Meters	86,618	87,484	88,359	89,242	90,135	91,036	91,946	92,866	93,795	94,733
Total Operating Revenue	\$16,465,920	\$16,571,422	\$16,706,213	\$16,870,785	\$17,065,852	\$17,339,093	\$17,658,497	\$18,026,885	\$18,447,707	\$18,925,116
Operating Expense										
Personnel Services	(2,595,829)	(2,673,704)	(2,753,915)	(2,836,533)	(2,921,629)	(3,009,278)	(3,099,556)	(3,192,543)	(3,288,319)	(3,386,968)
Supplies and Maintenance	(774,122)	(797,345)	(821,266)	(845,904)	(871,281)	(897,419)	(924,342)	(952,072)	(980,634)	(1,010,053)
Administrative Fee	(1,319,207)	(1,327,744)	(1,339,163)	(1,353,512)	(1,370,860)	(1,395,975)	(1,425,654)	(1,460,177)	(1,499,888)	(1,545,201)
Utilities	(660,338)	(680,148)	(700,553)	(721,569)	(743,216)	(765,513)	(788,478)	(812,133)	(836,497)	(861,591)
Contract Services	(5,199,615)	(5,330,268)	(5,465,557)	(5,605,667)	(5,765,794)	(5,916,142)	(6,071,924)	(6,233,364)	(6,400,698)	(6,574,172)
Equipment Lease and Rentals	(51,600)	(53,148)	(54,742)	(56,385)	(58,076)	(59,819)	(61,613)	(63,462)	(65,365)	(67,326)
Insurance	(189,625)	(195,314)	(201,173)	(207,209)	(213,425)	(219,828)	(226,422)	(233,215)	(240,212)	(247,418)
Changes in Lieu of Property Tax	(76,159)	(78,444)	(80,797)	(83,221)	(85,717)	(88,289)	(90,938)	(93,666)	(96,476)	(99,370)
Depreciation Expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous	(174,842)	(180,087)	(185,489)	(191,054)	(196,786)	(202,689)	(208,770)	(215,033)	(221,484)	(228,129)
Total Operating Expense	(\$11,041,337)	(\$11,316,203)	(\$11,602,656)	(\$11,901,053)	(\$12,226,785)	(\$12,554,951)	(\$12,897,697)	(\$13,255,664)	(\$13,629,573)	(\$14,020,229)
Non-Operating Revenues (Expenses)										
Investment Earnings	448,500	397,731	290,132	255,968	217,033	173,224	90,295	119,418	151,767	188,260
Gain (Loss) on Sale of Capital Assets	(17,982)	(18,162)	(18,344)	(18,527)	(18,712)	(18,900)	(19,089)	(19,279)	(19,472)	(19,667)
Impact Fee Expenditures	-	-	-	-	-	-	-	-	-	-
Interest Expense	-	-	-	-	-	-	-	-	-	-
Impact Fee Revenues	\$102,150	\$102,660	\$103,174	\$103,690	\$104,208	\$104,729	\$105,253	\$105,779	\$106,308	\$106,839
Total Non-Operating Revenue	\$532,667	\$482,229	\$374,962	\$341,130	\$302,529	\$259,053	\$176,459	\$205,918	\$238,602	\$275,432
Total Revenue Available for DS	\$5,957,251	\$5,737,449	\$5,478,519	\$5,310,862	\$5,141,595	\$5,043,195	\$4,937,259	\$4,977,139	\$5,056,736	\$5,180,319
Total DS	(\$1,967,735)	(\$2,660,385)	(\$2,659,871)	(\$2,655,313)	(\$2,651,385)	(\$2,930,800)	(\$3,103,700)	(\$2,929,676)	(\$2,447,851)	(\$2,449,976)
Total Revenue Available for CIP	\$3,989,516	\$3,077,063	\$2,818,648	\$2,655,549	\$2,490,211	\$2,112,395	\$1,833,559	\$2,047,463	\$2,608,886	\$2,730,343
Total Bond Proceeds	\$24,934,703	\$0	\$0	\$0	\$0	\$0	\$15,000,000	\$10,054,443	\$4,960,519	\$0
Total CIP	(\$32,410,593)	(\$10,353,101)	(\$5,200,059)	(\$5,356,060)	(\$5,516,742)	(\$7,747,955)	(\$4,945,557)	(\$5,093,924)	(\$5,246,741)	(\$5,404,144)
Net Income (Loss) Before Transfers	(\$3,486,374)	(\$7,276,037)	(\$2,381,411)	(\$2,700,511)	(\$3,026,532)	(\$5,635,560)	\$11,888,002	\$7,007,982	\$2,322,664	(\$2,673,800)
Change in Net Position	(\$3,384,609)	(\$7,173,254)	(\$2,277,601)	(\$2,595,663)	(\$2,920,634)	(\$5,528,604)	\$11,996,028	\$7,117,088	\$2,432,861	(\$2,562,501)
Beginning Cash Balance	\$29,900,000	\$26,515,391	\$19,342,137	\$17,064,536	\$14,468,873	\$11,548,239	\$6,019,635	\$7,961,220	\$10,117,789	\$12,550,650
Ending Fund Balance	\$26,515,391	\$19,342,137	\$17,064,536	\$14,468,873	\$11,548,239	\$6,019,635	\$18,015,664	\$15,078,309	\$12,550,650	\$9,988,149
Unrestricted	\$26,515,391	\$19,342,137	\$17,064,536	\$14,468,873	\$11,548,239	\$6,019,635	\$7,961,220	\$10,117,789	\$12,550,650	\$9,988,149
Days of Working Capital	877	624	537	444	345	175	225	279	336	260
Days of Working Capital Minimum	365	365	365	365	365	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	3.03	2.16	2.06	2.00	1.94	1.72	1.59	1.70	2.07	2.11
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25



APPENDIX B: DETAILED SEWER PRO FORMA

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Revenues										
Sewer Service Charge	12,245,179	12,367,762	12,522,557	12,710,663	12,933,440	13,206,418	13,532,474	13,915,169	14,358,820	14,868,588
Sewer Service Charge - Bad Debt	(6,990.75)	(7,060.65)	(7,131.26)	(7,202.57)	(7,274.60)	(7,347.34)	(7,420.82)	(7,495.03)	(7,569.98)	(7,645.68)
Sewer Service Charge - Vineyard	37,918	39,055	40,227	41,434	42,677	43,957	45,276	46,634	48,033	49,474
Sewer Service Charge - Lindon	458,298	472,047	486,209	500,795	515,819	531,293	547,232	563,649	580,558	597,975
Sewer Sales to General Fund - Contribution	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
Miscellaneous Revenue - Water Reclamation	19,328	19,521	19,716	19,913	20,113	20,314	20,517	20,722	20,929	21,139
Misc. Revenue - Facility Expansion - Lindon	125,977	125,977	125,977	125,977	125,977	125,977	125,977	125,977	125,977	125,977
Misc. Revenue - Facility Expansion - Vineyard	60,817	60,817	60,817	60,817	60,817	60,817	60,817	60,817	60,817	60,817
Misc. Revenue - Facility Fee - Vineyard	-	-	-	-	-	-	-	-	-	-
Miscellaneous Revenue - Personal Cell Phone	306.03	309.09	312.18	315.30	318.46	321.64	324.86	328.11	331.39	334.70
Permit Violation Fees	122,244.70	123,467.15	124,701.82	125,948.84	127,208.33	128,480.41	129,765.22	131,062.87	132,373.50	133,697.23
Inspection Permit Fees	44,872.16	45,320.88	45,774.09	46,231.83	46,694.15	47,161.09	47,632.70	48,109.03	48,590.12	49,076.02
Sewer Connection Fees	67,020.57	67,690.78	68,367.68	69,051.36	69,741.87	70,439.29	71,143.69	71,855.12	72,573.67	73,299.41
Total Operating Revenue	\$13,190,970	\$13,330,907	\$13,503,527	\$13,709,944	\$13,951,530	\$14,243,831	\$14,589,738	\$14,992,828	\$15,457,433	\$15,988,732
Operating Expense										
Personnel Services	(2,392,331)	(2,464,100)	(2,538,023)	(2,614,164)	(2,692,589)	(2,773,367)	(2,856,568)	(2,942,265)	(3,030,533)	(3,121,449)
Supplies and Maintenance	(721,000)	(742,630)	(764,909)	(787,856)	(811,492)	(835,837)	(860,912)	(886,739)	(913,341)	(940,741)
Administrative Fee	(899,685)	(911,943)	(927,423)	(946,233)	(968,511)	(995,809)	(1,028,414)	(1,066,684)	(1,111,049)	(1,162,026)
Utilities	(721,000)	(742,630)	(764,909)	(787,856)	(811,492)	(835,837)	(860,912)	(886,739)	(913,341)	(940,741)
Contract Services	(773,673)	(796,883)	(820,790)	(845,413)	(870,776)	(896,899)	(923,806)	(951,520)	(980,066)	(1,009,468)
Equipment Lease and Rentals	(2,477)	(2,552)	(2,628)	(2,707)	(2,788)	(2,872)	(2,958)	(3,047)	(3,138)	(3,232)
Insurance	(140,654)	(144,874)	(149,220)	(153,697)	(158,307)	(163,057)	(167,948)	(172,987)	(178,176)	(183,522)
Charges in Lieu of Property Tax	(55,872)	(57,548)	(59,275)	(61,053)	(62,885)	(64,771)	(66,714)	(68,716)	(70,777)	(72,901)
Depreciation Expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous	(172,098)	(177,261)	(182,579)	(188,056)	(193,698)	(199,509)	(205,494)	(211,659)	(218,009)	(224,549)
Total Operating Expense	(\$5,878,790)	(\$6,040,422)	(\$6,209,755)	(\$6,387,036)	(\$6,572,538)	(\$6,767,956)	(\$6,973,726)	(\$7,190,355)	(\$7,418,431)	(\$7,658,629)
Non-Operating Revenues (Expenses)										
Investment Earnings	174,000	140,025	143,645	140,986	134,224	136,225	94,486	80,454	73,394	66,534
Gain (Loss) on Sale of Capital Assets	(8,142)	(8,224)	(8,306)	(8,389)	(8,473)	(8,558)	(8,643)	(8,730)	(8,817)	(8,905)
Impact Fee Expenditures	-	-	-	-	-	-	-	-	-	-
Interest Expense	-	-	-	-	-	-	-	-	-	-
Impact Fee Revenues	89,665	90,113	90,564	91,016	91,472	91,929	92,389	92,850	93,315	93,781
Total Non-Operating Revenue	\$255,522	\$221,914	\$225,902	\$223,613	\$217,223	\$219,596	\$178,231	\$164,575	\$157,892	\$151,410
Total Revenue Available for DS	\$7,567,702	\$7,512,399	\$7,519,674	\$7,546,521	\$7,596,215	\$7,695,471	\$7,794,242	\$7,967,047	\$8,196,894	\$8,481,513
Total DS	(\$805,273)	(\$1,039,925)	(\$1,042,925)	(\$1,039,550)	(\$1,040,800)	(\$1,043,450)	(\$1,040,725)	(\$1,040,725)	(\$1,040,225)	(\$1,039,225)
Total Revenue Available for CIP	\$6,762,428	\$6,472,474	\$6,476,749	\$6,506,971	\$6,555,415	\$6,652,021	\$6,753,517	\$6,926,322	\$7,156,669	\$7,442,288
Total Bond Proceeds	\$8,414,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP	(\$17,214,066)	(\$6,001,495)	(\$6,422,045)	(\$6,723,492)	(\$6,185,416)	(\$9,195,689)	(\$7,447,590)	(\$7,153,213)	(\$7,367,809)	(\$7,588,843)
Net Income (Loss) Before Transfers	(\$2,037,638)	\$470,979	\$54,705	(\$216,520)	\$369,998	(\$2,543,668)	(\$694,073)	(\$226,890)	(\$211,140)	(\$146,556)
Change in Net Position	(\$2,265,014)	\$241,329	(\$177,242)	(\$450,786)	\$133,390	(\$2,782,643)	(\$935,438)	(\$470,669)	(\$457,355)	(\$395,234)
Beginning Cash Balance	\$11,600,000	\$9,334,986	\$9,576,315	\$9,399,073	\$8,948,287	\$9,081,677	\$6,299,034	\$5,363,596	\$4,892,928	\$4,435,572
Ending Fund Balance	\$9,334,986	\$9,576,315	\$9,399,073	\$8,948,287	\$9,081,677	\$6,299,034	\$5,363,596	\$4,892,928	\$4,435,572	\$4,040,339
Unrestricted	\$9,334,986	\$9,576,315	\$9,399,073	\$8,948,287	\$9,081,677	\$6,299,034	\$5,363,596	\$4,892,928	\$4,435,572	\$4,040,339
Days of Working Capital	580	579	552	511	504	340	281	248	218	193
Days of Working Capital Minimum	365	365	365	365	365	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	9.40	7.22	7.21	7.26	7.30	7.38	7.49	7.66	7.88	8.16
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25



APPENDIX C: DETAILED STORM WATER PRO FORMA

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Revenues										
Storm Water Fees	5,211,901	5,372,267	5,534,107	5,697,430	5,862,249	6,028,573	6,196,414	6,365,783	6,536,690	6,709,147
Storm Water Fees - Bad Debt	(1,984)	(2,004)	(2,024)	(2,044)	(2,065)	(2,085)	(2,106)	(2,127)	(2,148)	(2,170)
Cont From - Fund 10 - Storm Water Fee	-	-	-	-	-	-	-	-	-	-
Reviews - LT Management Plans	(1,017)	(1,027)	(1,037)	(1,048)	(1,058)	(1,069)	(1,080)	(1,090)	(1,101)	(1,112)
Reviews - SWPPP Plans	9,508	9,603	9,699	9,796	9,894	9,993	10,093	10,194	10,296	10,399
Fines - SWPPP - Site Citation Infraction	1,224	1,236	1,249	1,261	1,274	1,287	1,299	1,312	1,326	1,339
Miscellaneous Revenue - Storm Water	408	412	416	420	425	429	433	437	442	446
Storm Water Inspection Fees	40,270	40,673	41,080	41,491	41,906	42,325	42,748	43,175	43,607	44,043
Total Operating Revenue	\$5,260,311	\$5,421,161	\$5,583,489	\$5,747,307	\$5,912,624	\$6,079,452	\$6,247,802	\$6,417,684	\$6,589,111	\$6,762,092
Operating Expense										
Personnel Services	(1,091,602)	(1,124,350)	(1,158,081)	(1,192,823)	(1,228,608)	(1,265,466)	(1,303,430)	(1,342,533)	(1,382,809)	(1,424,293)
Supplies and Maintenance	(367,343)	(378,363)	(389,714)	(401,406)	(413,448)	(425,851)	(438,627)	(451,786)	(465,339)	(479,299)
Administrative Fee	(361,944)	(377,981)	(394,165)	(410,497)	(426,979)	(443,611)	(460,395)	(477,332)	(494,423)	(511,669)
Utilities	(9,180)	(9,455)	(9,739)	(10,031)	(10,332)	(10,642)	(10,961)	(11,290)	(11,629)	(11,978)
Contract Services	(541,186)	(557,422)	(574,144)	(591,369)	(609,110)	(627,383)	(646,204)	(665,591)	(685,558)	(706,125)
Equipment Lease and Rentals	(5,000)	(5,150)	(5,305)	(5,464)	(5,628)	(5,796)	(5,970)	(6,149)	(6,334)	(6,524)
Insurance	(21,647)	(22,296)	(22,965)	(23,654)	(24,364)	(25,095)	(25,848)	(26,623)	(27,422)	(28,244)
Charges in Lieu of Property Tax	(29,316)	(30,195)	(31,101)	(32,034)	(32,995)	(33,985)	(35,005)	(36,055)	(37,137)	(38,251)
Depreciation Expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous	(85,586)	(88,154)	(90,798)	(93,522)	(96,328)	(99,218)	(102,194)	(105,260)	(108,418)	(111,670)
Total Operating Expense	(\$2,512,804)	(\$2,593,366)	(\$2,676,012)	(\$2,760,800)	(\$2,847,791)	(\$2,937,047)	(\$3,028,635)	(\$3,122,619)	(\$3,219,068)	(\$3,318,053)
Non-Operating Revenues (Expenses)										
Investment Earnings	50,000	73,983	26,102	59,978	80,921	67,657	56,358	18,631	12,567	27,215
Gain (Loss) on Sale of Capital Assets	-	-	-	-	-	-	-	-	-	-
Impact Fee Expenditures	-	-	-	-	-	-	-	-	-	-
Interest Expense	-	-	-	-	-	-	-	-	-	-
Impact Fee Revenues	75,000	69,603	69,951	70,301	70,653	71,006	71,361	71,718	72,076	72,437
Total Non-Operating Revenue	\$125,000	\$143,586	\$96,054	\$130,279	\$151,574	\$138,663	\$127,719	\$90,349	\$84,643	\$99,652
Total Revenue Available for DS	\$2,872,507	\$2,971,381	\$3,003,531	\$3,116,786	\$3,216,407	\$3,281,068	\$3,346,887	\$3,385,415	\$3,454,686	\$3,543,691
Total DS	(\$504,170)	(\$558,079)	(\$561,979)	(\$1,535,567)	(\$1,538,793)	(\$1,081,919)	(\$1,080,119)	(\$1,082,744)	(\$1,080,244)	(\$1,082,619)
Total Revenue Available for CIP	\$2,368,336	\$2,413,302	\$2,441,552	\$1,581,220	\$1,677,614	\$2,199,149	\$2,266,768	\$2,302,671	\$2,374,442	\$2,461,072
Bond Proceeds	\$2,000,000	\$0	\$13,000,000	\$8,003,254	\$2,265,489	\$0	\$0	\$0	\$0	\$0
Total CIP	(\$5,340,684)	(\$5,423,989)	(\$4,996,746)	(\$5,737,765)	(\$4,640,493)	(\$2,763,670)	(\$4,591,279)	(\$2,514,450)	(\$1,203,432)	(\$2,827,506)
Net Income (Loss) Before Transfers	(\$972,348)	(\$3,010,687)	\$10,444,806	\$3,846,709	(\$697,390)	(\$564,521)	(\$2,324,511)	(\$211,779)	\$1,171,011	(\$366,434)
Change in Net Position	(1,151,919)	(3,192,054)	10,261,626	3,661,696	(884,253)	(753,252)	(2,515,130)	(404,304)	976,561	(562,828)
Beginning Cash Balance	6,084,126	4,932,207	1,740,153	3,998,525	5,394,732	4,510,479	3,757,227	1,242,097	837,793	1,814,353
Ending Fund Balance	4,932,207	1,740,153	12,001,779	7,660,221	4,510,479	3,757,227	1,242,097	837,793	1,814,353	1,251,525
Unrestricted	\$4,932,207	\$1,740,153	\$3,998,525	\$5,394,732	\$4,510,479	\$3,757,227	\$1,242,097	\$837,793	\$1,814,353	\$1,251,525
Days of Working Capital	707	242	538	703	570	461	148	97	203	136
Days of Working Capital Minimum	365	365	365	365	365	365	365	365	365	365
Coverage Ratio (w/Impact Fees)	5.70	5.32	5.34	2.03	2.09	3.03	3.10	3.13	3.20	3.27
Coverage Ratio (w/Impact Fees) Target	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25