



SEWER RATE STUDY

SEWER UTILITY
OREM CITY, UTAH

MARCH 2016



PREPARED BY
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SECTION I: EXECUTIVE SUMMARY

The City of Orem (“City”) commissioned Lewis Young Robertson & Burningham, Inc. (“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 operation and maintenance (O&M) expenses while maintaining bond covenants, ensuring the appropriate debt service coverage ratio, and providing 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 would not have sufficient revenues to fund the needed capital improvements without a rate increase. As a result, City staff, the City Council and consultants evaluated many potential rate scenarios during the study phase of this analysis, with the City ultimately focusing on four scenarios:

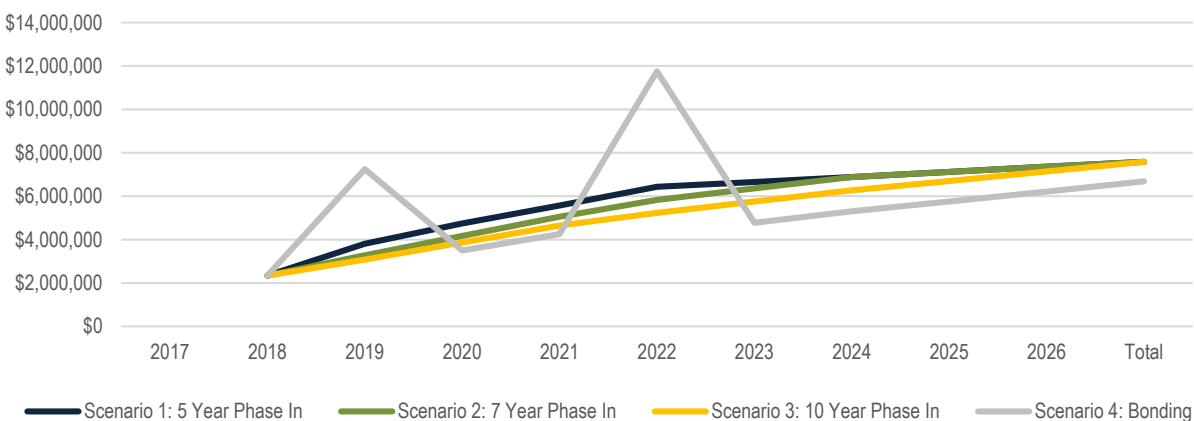
- ☞ **Scenario 1** – Phasing the proposed CIP over a five (5) year period with no new debt;
- ☞ **Scenario 2** – Phasing the proposed CIP over a seven (7) year period with no new debt;
- ☞ **Scenario 3** – Phasing the proposed CIP over a ten (10) year period with no new debt; and,
- ☞ **Scenario 4** – Phasing the proposed CIP over a five (5) year period with new debt.

The rate scenarios shown below are structured to produce a final base rate of \$16.03 within ten years and a usage rate of \$3.66 per 1,000 gallons. The annual rate increase curve for each scenario is adjusted to reflect the changes in the CIP (See **Figure 1.1**), with Scenarios 2-4 funding a reduced CIP in order to allow for a more moderate annual increase in the rates.

TABLE 1.1: ILLUSTRATION OF PROPOSED RATE INCREASE SCENARIOS

	Scenario 1: 5 Year Phase In		Scenario 2: 7 Year Phase In		Scenario 3: 10 Year Phase In		Scenario 4: Bonding	
	Base (per month)	Usage Charge (per 1K gal)	Base (per month)	Usage Charge (per 1K gal)	Usage Charge (per 1K gal)	Usage Charge (per 1K gal)	Base (per month)	Usage Charge (per 1K gal)
2016	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42
2017	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42
2018	\$9.32	\$2.13	\$9.32	\$1.85	\$9.32	\$1.85	\$9.32	\$1.85
2019	\$10.72	\$2.45	\$10.72	\$2.18	\$10.44	\$2.07	\$10.25	\$2.07
2020	\$12.11	\$2.77	\$12.33	\$2.53	\$11.69	\$2.32	\$11.28	\$2.32
2021	\$13.44	\$3.07	\$13.56	\$2.78	\$12.86	\$2.55	\$12.41	\$2.55
2022	\$14.11	\$3.22	\$14.37	\$3.00	\$13.89	\$2.75	\$13.40	\$2.75
2023	\$14.67	\$3.35	\$14.94	\$3.24	\$14.72	\$2.97	\$14.34	\$2.97
2024	\$15.11	\$3.45	\$15.39	\$3.40	\$15.31	\$3.21	\$15.06	\$3.21
2025	\$15.56	\$3.55	\$15.77	\$3.57	\$15.72	\$3.47	\$15.59	\$3.47
2026	\$16.03	\$3.66	\$16.03	\$3.66	\$16.03	\$3.66	\$16.03	\$3.66
10-YR CIP		\$58,522,205		\$55,994,367		\$52,636,668		\$57,824,284
Fund Balance (Year 10)		\$4,428,295		\$4,332,297		\$4,345,164		\$4,174,467

FIGURE 1.1: PROPOSED CIP FUNDING



Each scenario assumes an annual growth of one percent in connections. Annual Operation and Maintenance (“O&M”) expenditures are assumed to increase by three percent annually. The comparison of revenues and expenditures under the proposed rate increases illustrates that the City will continue to maintain the necessary debt service coverage ratios, while providing necessary funding for capital improvement and replacement projects according to the proposed CIP scenarios. While the fund balance is anticipated to increase slightly over time under each scenario, the proportional “Days of Working Capital” will decline as a result of increasing operations and maintenance expenditures. However, the fund balances will achieve the minimum set by the City of maintaining at least 50 percent of O&M expenses in reserve funds by Year 10.

TABLE 1.2: SUMMARY PRO FORMA – SCENARIO 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.11	\$13.44	\$16.03
Usage Charge (per Month)	\$1.42	\$2.13	\$2.45	\$2.77	\$3.07	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,804,902	11,054,200	12,308,935	13,503,638	16,046,719
Total Operating Expense	(4,876,421)	(5,351,532)	(5,709,780)	(6,072,388)	(6,426,359)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,340,665)	(3,808,706)	(4,748,215)	(5,574,372)	(6,435,555)	(2,751,470)
Net Income (Loss) Before Transfers	183,845	90,582	42,522	108,896	88,851	344,044
Change in Net Position after Transfers and Contributions	130,162	36,363	(12,239)	53,587	32,989	285,332
Beginning Fund Balance	2,895,824	3,025,986	3,062,350	3,050,111	3,103,698	4,142,963
Ending Fund Balance (Unrestricted)	\$3,025,986	\$3,062,350	\$3,050,111	\$3,103,698	\$3,136,687	\$4,428,295
Fund Balance as % of O&M	62%	57%	53%	51%	49%	59%
Days of Working Capital	223	206	192	184	176	211
Coverage Ratio	5.18	7.50	9.00	10.50	11.91	14.26

TABLE 1.3: SUMMARY PRO FORMA – SCENARIO 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.33	\$13.56	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.18	\$2.53	\$2.78	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	10,364,482	11,758,654	12,797,428	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,571,837)	(5,962,332)	(6,285,117)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,339,818)	(3,282,893)	(4,170,292)	(5,053,328)	(5,831,885)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	44,184	68,671	189,715	127,554	344,044
Change in Net Position after Transfers and Contributions	131,009	(10,035)	13,909	134,406	71,692	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,016,798	3,030,707	3,165,113	4,046,965
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,016,798	\$3,030,707	\$3,165,113	\$3,236,805	\$4,332,297
Fund Balance as % of O&M	62%	58%	54%	53%	51%	57%
Days of Working Capital	223	209	196	191	185	206
Coverage Ratio	5.18	6.53	8.07	9.76	10.96	14.26

TABLE 1.4: SUMMARY PRO FORMA – SCENARIO 3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.44	\$11.69	\$12.86	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	10,004,348	11,039,511	12,008,068	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,499,810)	(5,818,503)	(6,127,245)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,339,818)	(3,082,893)	(3,870,292)	(4,653,328)	(5,231,885)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	244,184	80,563	14,400	96,066	344,044
Change in Net Position after Transfers and Contributions	131,009	189,965	25,802	(40,909)	40,204	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,216,798	3,242,599	3,201,691	4,059,832
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,216,798	\$3,242,599	\$3,201,691	\$3,241,894	\$4,345,164
Fund Balance as % of O&M	62%	62%	59%	55%	53%	57%
Days of Working Capital	223	222	212	198	190	207
Coverage Ratio	5.18	6.53	7.58	8.79	9.90	14.26



TABLE 1.5: SUMMARY PRO FORMA – SCENARIO 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.25	\$11.28	\$12.41	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	9,950,647	10,922,471	11,878,325	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,489,069)	(5,795,095)	(6,101,297)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(933,396)	(933,396)	(933,396)	(1,499,056)	(1,500,056)
Total CIP	(2,339,818)	(7,243,498)	(3,503,661)	(4,250,862)	(11,756,043)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	244,184	64,838	(16,162)	63,058	344,044
Change in Net Position after Transfers and Contributions	131,009	189,965	10,076	(71,471)	7,196	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,216,798	3,226,874	3,155,403	3,889,135
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,216,798	\$3,226,874	\$3,155,403	\$3,162,599	\$4,174,467
Fund Balance as % of O&M	62%	62%	59%	54%	52%	55%
Days of Working Capital	223	222	212	196	187	199
Coverage Ratio	5.18	4.16	4.78	5.49	3.85	5.65

SECTION II: OVERVIEW OF APPROACH AND ADOPTION OF REVISED RATES

This study analyzes potential rate increase scenarios to meet current and future debt service obligations, while ensuring revenue sufficiency for capital improvements, the funding of depreciation (repair and replacement) and existing bond covenants. The recommendations presented in this study are based on reasonable planning, cost, and demand projections. The proposed rate scenarios are designed to recover the costs necessary to maintain a viable utility, while balancing economic and affordability concerns.

EXISTING RATE STRUCTURE

The existing monthly charge for sewer services consist of a base rate of \$9.32 per connection plus a usage charge of \$1.42 per 1,000 gallons.

GENERAL RATE OBJECTIVES

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

- ☞ First, the City wanted to ensure sufficient revenues to cover all operation and maintenance (O&M) expenses while maintaining bond covenants and the appropriate debt service coverage ratio of at least 1.25x.
- ☞ Second, the City wanted to continue to fund capital improvements in the ten-year window using rate revenues, while minimizing future bonding needs and maintaining a fund balance of 50 percent of annual O&M expenses.
- ☞ Third, the rates should evaluate a policy to maintain the existing rate structure based on a base rate assessment plus a usage fee, with an adjustment for a base fee per unit, rather than a base fee per connection. This would result in a fee assessment for multi-unit establishments based on the number of dwelling units or “doors”. The usage fee would continue to be assessed based on flow, regardless of the number of units.
- ☞ Finally, the proposed rate recommendations should be easy to implement and equitably distribute cost relative to daily and peak demand.

RATE DETERMINATION METHODOLOGY

Based on the above objectives, the sewer 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 the sewer 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 2026 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: REVENUE GROWTH ANALYSIS

SERVICE AREA

The utility rates identified in this document will be assessed to all accounts within the sewer utility service area.

DEMAND UNITS

The demand units in this analysis are connections and projected flows. According to information provided by the City, there were 22,634 system connections in 2015. The City has projected connections based on an annual growth rate of one percent, resulting in a total of 23,789 connections by 2020. This analysis applies the same growth rate through 2026, resulting in a total of 25,252 connections. For the purposes of this analysis, estimated flows are projected at a constant level of 2.5 million units (measured in 1,000 gallon units). Historic flow data shows a declining trend, dropping from 2.66 million units in 2009 to 2.5 million units in 2014 and 2015. Further decline in flows will affect the projected revenue as shown in this report.

TABLE 3.1: CITY-WIDE GROWTH PROJECTIONS

ESUs (FY)	TOTAL CONNECTIONS
2016	22,860
2017	23,089
2018	23,320
2019	23,553
2020	23,789
2021	24,026
2022	24,267
2023	24,509
2024	24,754
2025	25,002
2026	25,252

HISTORIC AND PROJECTED OPERATING REVENUES

Utilizing the growth estimates shown in **Table 3.1**, LYRB forecasted the potential revenues generated from current service charges without any rate increases, as shown below. The City desired to maintain the existing rate structure based on a base rate assessment plus a usage fee. In addition to proposed rate increases, this analysis includes an adjustment for a base fee per unit, rather than a base fee per connection. This would result in a fee assessment for multi-unit establishments based on the number of dwelling units or “doors”. The usage fee would continue to be assessed based on flow, regardless of the number of units. The usage fee would continue to be assessed based on flow, regardless of the number of units. The City has estimated that this structural change in the rate assessment would produce an additional \$800,000 in revenues per year, which is included in the revenue calculation below.

TABLE 3.2: HISTORIC OPERATING REVENUES

	2009	2010	2011	2012	2013	2014	2015
Charges for Services	5,773,255	5,857,655	6,201,588	6,329,891	6,380,841	6,449,844	6,444,975
Other Revenues	286,980	590,402	395,754	481,875	765,667	1,070,862	1,562,186
Total Operating Revenue	\$6,060,235	\$6,448,057	\$6,597,342	\$6,811,766	\$7,146,508	\$7,520,706	\$8,007,161

Source: Orem City Financial Statements

TABLE 3.3: FORECASTED OPERATING REVENUES

Scenario 1: 5 Year Phase In	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.11	\$13.44	\$16.03
Usage Charge (per Month)	\$1.42	\$2.13	\$2.45	\$2.77	\$3.07	\$3.66
Total Operating Revenue	\$7,955,408	\$9,804,902	\$11,054,200	\$12,308,935	\$13,503,638	\$16,046,719
Scenario 2: 7 Year Phase In	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.33	\$13.56	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.18	\$2.53	\$2.78	\$3.66
Total Operating Revenue	\$7,955,408	\$9,089,638	\$10,364,482	\$11,758,654	\$12,797,428	\$16,046,719
Scenario 3: 10 Year Phase In	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.44	\$11.69	\$12.86	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Total Operating Revenue	\$7,955,408	\$9,089,638	\$10,004,348	\$11,039,511	\$12,008,068	\$16,046,719
Scenario 4: Bonding	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.25	\$11.28	\$12.41	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Total Operating Revenue	\$7,955,408	\$9,089,638	\$9,950,647	\$10,922,471	\$11,878,325	\$16,046,719



PROJECTED NON-OPERATING REVENUES

Non-operating revenues are primarily comprised of impact fee revenues and interest revenues. The City currently assesses an impact fee within a recently annexed area of the City. However, revenues from these sources are not considered in this analysis at this time due to the uncertainty of the timing of new growth. Historic and projected total non-operating revenues are shown below. Assumptions regarding annual non-operating revenues do not change under each scenario. The projections assume non-operating revenue will grow at an annual rate of one percent.

TABLE 3.4: HISTORIC NON-OPERATING REVENUES

NON-OPERATING REVENUES (EXPENSES)	2009	2010	2011	2012	2013	2014	2015
Interest Revenue	37,435	18,401	22,015	29,202	16,134	21,437	26,318
Impact Fee Revenues	-	-	-	-	-	-	-
Gain (Loss) on Sale of Capital Assets	14,975	13,998	(26,296)	61,034	(55,327)	2,200	76,399
Donations/Grants	-	-	-	-	-	-	-
Deferred Charges	-	(1,371)	(3,655)	(3,655)	(3,655)	-	-
Total Non-Operating Revenue	\$52,410	\$31,028	(\$7,936)	\$86,581	(\$42,848)	\$23,637	\$102,717

Source: Orem City Financial Statements

TABLE 3.5: FORECASTED NON-OPERATING REVENUES

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Total Non-Operating Revenues (Expenses)	\$39,523	\$39,918	\$40,317	\$40,720	\$41,128	\$43,226

SECTION IV: COST OF SERVICE ANALYSIS

This analysis considers historic revenues and expenses during the period from Fiscal Year (“FY”) 2009 through FY 2015, and forecasts revenues and expenditures through 2026. 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 service 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 are considered fixed as the system does not deal with fluctuation in water flows like a culinary or secondary water system. Projections of the future O&M expenses, excluding the Administrative Fee, are projected to grow at an annual rate of three percent. Historic data shows an average annual growth of less than one percent growth in expenditures from 2009 to 2015. A comparison to the Municipal Cost Index (MCI) and Construction Cost Index (CCI) shows an average annual change in cost components of 2.8 percent and 3.2 percent respectively.¹ Thus, a three percent increase in operations and maintenance expenses appears reasonable for the purposes of forecasting expenses. According to the City, Administrative Expense is set to ten percent of new revenue plus previous year’s total. Therefore, O&M expense is adjusted based on the calculated revenues for each scenario, resulting in a differing O&M forecast, until year ten when this is equalized.

TABLE 4.1: HISTORIC OPERATIONS AND MAINTENANCE EXPENSES

OPERATING EXPENSE	2009	2010	2011	2012	2013	2014	2015
Personal Services	(2,122,801)	(2,055,743)	(2,000,516)	(2,105,684)	(2,028,481)	(1,960,862)	(1,830,390)
Supplies and Maintenance	(567,557)	(557,625)	(597,838)	(636,648)	(713,955)	(793,880)	(714,679)
Administrative Fee*	(804,769)	(841,076)	(862,102)	(854,576)	(884,441)	(857,804)	(648,162)
Utilities	(454,329)	(524,360)	(533,260)	(584,089)	(634,577)	(624,227)	(649,009)
Contract Services	(787,473)	(706,697)	(642,914)	(743,387)	(507,136)	(524,055)	(576,514)
Equipment Lease and Rentals	(826)	(2,546)	(3,975)	(12,060)	(18,402)	(15,600)	(11,996)
Insurance	(67,952)	(68,313)	(68,201)	(102,003)	(102,627)	(112,682)	(112,738)
Changes in Lieu of Property Tax	(95,000)	(97,500)	(100,000)	(52,500)	(50,000)	(50,000)	(52,665)
Miscellaneous	(64,288)	(52,129)	(63,359)	(70,895)	(75,217)	(77,273)	(104,167)
Total Operating Expense	(\$4,964,995)	(\$4,905,989)	(\$4,872,165)	(\$5,161,842)	(\$5,014,836)	(\$5,016,383)	(\$4,700,320)

Source: City of Orem Financial Statements. *According to the City, Administrative Expense set to ten percent of new revenue plus previous year’s total.

TABLE 4.2: PROJECTED OPERATIONS AND MAINTENANCE EXPENSES

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Scenario 1: Total Operating Expense	(4,876,421)	(5,351,532)	(5,709,780)	(6,072,388)	(6,426,359)	(7,564,341)
Scenario 2: Total Operating Expense	(4,876,421)	(5,208,479)	(5,571,837)	(5,962,332)	(6,285,117)	(7,564,341)
Scenario 3: Total Operating Expense	(4,876,421)	(5,208,479)	(5,499,810)	(5,818,503)	(6,127,245)	(7,564,341)
Scenario 4: Total Operating Expense	(\$4,876,421)	(\$5,208,479)	(\$5,489,069)	(\$5,795,095)	(\$6,101,297)	(\$7,564,341)

CAPITAL PROJECT COSTS

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 4.3** summarizes the total proposed capital improvement estimated construction costs. The City’s Master Plan provides a detail of the proposed capital improvement plan (CIP). The sum of capital costs for the 10 year period fluctuate for each scenario due to construction timing. Scenario 4, which includes bonding, allows for projects to be built earlier, reducing the amount of inflation that is accumulated over time. As is shown in the five year totals, Scenario 4 funds a larger portion of the CIP within the 5 year window.

¹ Source: <http://americancityandcounty.com/mciarchive/#Archive>, Accessed January 2016. Based on average from 2000-2015.



TABLE 4.3: SUMMARY OF CAPITAL PROJECT COSTS

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	5 YEAR TOTAL
Scenario 1: 5 Year Phase In	2,340,665	3,808,706	4,748,215	5,574,372	6,435,555	\$22,907,513
Scenario 2: 7 Year Phase In	2,339,818	3,282,893	4,170,292	5,053,328	5,831,885	\$20,678,216
Scenario 3: 10 Year Phase In	2,339,818	3,082,893	3,870,292	4,653,328	5,231,885	\$19,178,216
Scenario 4: Bonding	2,339,818	7,243,498	3,503,661	4,250,862	11,756,043	\$29,093,882
	Year 6	Year 7	Year 8	Year 9	Year 10	10 Year Total
Scenario 1: 5 Year Phase In	6,656,442	6,884,902	7,121,196	7,365,592	7,586,560	58,522,205
Scenario 2: 7 Year Phase In	6,357,901	6,884,902	7,121,196	7,365,592	7,586,560	55,994,367
Scenario 3: 10 Year Phase In	5,757,901	6,271,586	6,702,834	7,139,571	7,586,560	52,636,668
Scenario 4: Bonding	\$4,774,233	\$5,304,597	\$5,756,898	\$6,213,169	\$6,681,504	\$57,824,284

FUNDING OF DEPRECIATION (REPAIR & 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 has funded its existing capital infrastructure through a combination of different revenue sources, including rate revenues and the issuance of debt. There is one piece of outstanding debt applicable to this analysis: the 2010 Water Quality Revenue Bonds, of which 100 percent is related to sewer. The proceeds of the bonds were used to construct and expand facilities at the Sewer Plant.

TABLE 4.4: OUTSTANDING DEBT

DEBT SERVICE	2009	2010	2011	2012	2013	2014	2015	2016	2017
2010	-	-	-	-	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)
Debt Service	2018	2019	2020	2021	2022	2023	2024	2025	2026
2010	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)

Scenario 4 assumes the City will issue additional bonds in the planning horizon to fund future capital needs. It is anticipated that two pieces of debt would be required to mitigate annual rate increases while funding the proposed CIP. The following debt assumptions are used for Scenario 4.

TABLE 4.5: DEBT ASSUMPTIONS

	Series 2018	Series 2021
Proceeds	\$4,500,000	\$7,500,000
COI	2.50%	2.50%
Coupon	4.00%	4.00%

The proposed bonds are based on level debt over 20 years. The proposed Series 2018 would mature in 2037 and the proposed Series 2021 would mature in 2040.

TABLE 4.6: FORECAST OF FUTURE DEBT SERVICE PAYMENTS

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2010	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)	(595,000)	(595,000)
Proposed: Series 2018	-	(339,396)	(339,396)	(339,396)	(339,396)	(339,396)	(339,396)	(339,396)	(339,396)	(339,396)
Proposed: Series 2021	-	-	-	-	(565,660)	(565,660)	(565,660)	(565,660)	(565,660)	(565,660)
Total DS	(\$594,000)	(\$933,396)	(\$933,396)	(\$933,396)	(\$1,499,056)	(\$1,499,056)	(\$1,499,056)	(\$1,500,056)	(\$1,500,056)	(\$1,500,056)

SECTION V: RATE DESIGN ANALYSIS

PROPOSED RATE STRUCTURE SCENARIOS

The primary objectives of the rate analysis was to ensure sufficient revenues to cover all operation and maintenance (O&M) expenses while maintaining bond covenants and the appropriate debt service coverage ratio. The City also wanted to ensure the recommended rates allowed for appropriate funding of capital improvements in the five-year window.

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. As a result, City staff, the City Council and consultants evaluated many potential rate scenarios during the study phase of this analysis, with the City ultimately focusing on four scenarios:

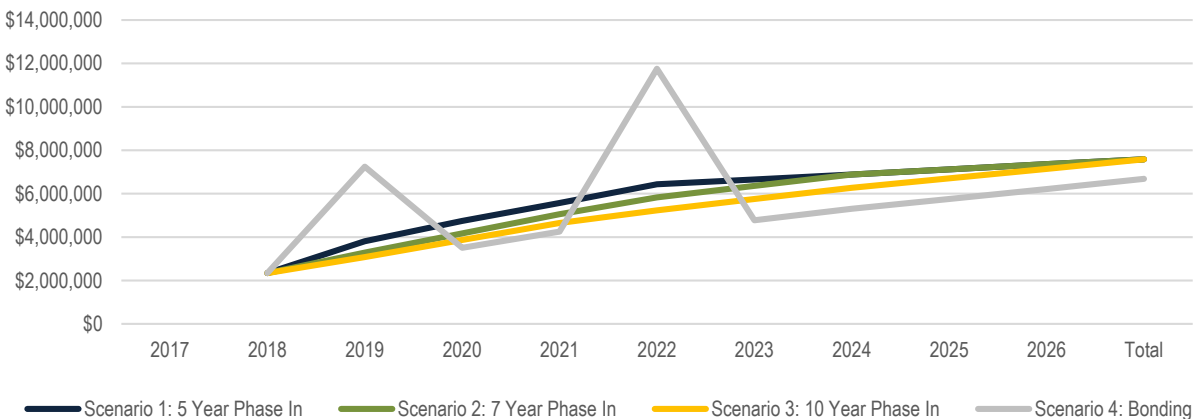
- ☞ **Scenario 1** – Phasing the proposed CIP over a five (5) year period with no new debt;
- ☞ **Scenario 2** – Phasing the proposed CIP over a seven (7) year period with no new debt;
- ☞ **Scenario 3** – Phasing the proposed CIP over a ten (10) year period with no new debt; and,
- ☞ **Scenario 4** – Phasing the proposed CIP over a five (5) year period with new debt.

The rate scenarios shown below are structured to produce a final base rate of \$16.03 within ten years and a usage rate of \$3.66 per 1,000 gallons. The annual rate increase curve for each scenario is adjusted to reflect the changes in the CIP (See **Figure 5.1**), with Scenarios 2-4 funding a reduced CIP in order to allow for a more moderate annual increase in the rates.

TABLE 5.1: ILLUSTRATION OF PROPOSED RATE INCREASE SCENARIOS

	Scenario 1: 5 Year Phase In		Scenario 2: 7 Year Phase In		Scenario 3: 10 Year Phase In		Scenario 4: Bonding	
	Base (per month)	Usage Charge (per 1K gal)	Base (per month)	Usage Charge (per 1K gal)	Usage Charge (per 1K gal)	Usage Charge (per 1K gal)	Base (per month)	Usage Charge (per 1K gal)
2016	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42
2017	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42	\$9.32	\$1.42
2018	\$9.32	\$2.13	\$9.32	\$1.85	\$9.32	\$1.85	\$9.32	\$1.85
2019	\$10.72	\$2.45	\$10.72	\$2.18	\$10.44	\$2.07	\$10.25	\$2.07
2020	\$12.11	\$2.77	\$12.33	\$2.53	\$11.69	\$2.32	\$11.28	\$2.32
2021	\$13.44	\$3.07	\$13.56	\$2.78	\$12.86	\$2.55	\$12.41	\$2.55
2022	\$14.11	\$3.22	\$14.37	\$3.00	\$13.89	\$2.75	\$13.40	\$2.75
2023	\$14.67	\$3.35	\$14.94	\$3.24	\$14.72	\$2.97	\$14.34	\$2.97
2024	\$15.11	\$3.45	\$15.39	\$3.40	\$15.31	\$3.21	\$15.06	\$3.21
2025	\$15.56	\$3.55	\$15.77	\$3.57	\$15.72	\$3.47	\$15.59	\$3.47
2026	\$16.03	\$3.66	\$16.03	\$3.66	\$16.03	\$3.66	\$16.03	\$3.66
10-YR CIP		\$58,522,205		\$55,994,367		\$52,636,668		\$57,824,284
Fund Balance (Year 10)		\$4,428,295		\$4,332,297		\$4,345,164		\$4,174,467

FIGURE 5.1: PROPOSED CIP FUNDING



Each scenario assumes an annual growth of one percent in connections. Annual Operation and Maintenance (“O&M”) expenditures are assumed to increase by three percent annually. The comparison of revenues and expenditures under the proposed rate increases illustrates that the City will continue to maintain the necessary debt service coverage ratios, while providing necessary funding for capital improvement and replacement projects according to the proposed CIP scenarios. While the fund balance is anticipated to increase slightly over time under each scenario, the proportional “Days of Working Capital” will decline as a result of increasing operations and maintenance expenditures. However, the fund balances will achieve the minimum set by the City of maintaining at least 50 percent of O&M expenses in reserve funds by Year 10.

TABLE 5.2: SUMMARY PRO FORMA – SCENARIO 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.11	\$13.44	\$16.03
Usage Charge (per Month)	\$1.42	\$2.13	\$2.45	\$2.77	\$3.07	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,804,902	11,054,200	12,308,935	13,503,638	16,046,719
Total Operating Expense	(4,876,421)	(5,351,532)	(5,709,780)	(6,072,388)	(6,426,359)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,340,665)	(3,808,706)	(4,748,215)	(5,574,372)	(6,435,555)	(2,751,470)
Net Income (Loss) Before Transfers	183,845	90,582	42,522	108,896	88,851	344,044
Change in Net Position after Transfers and Contributions	130,162	36,363	(12,239)	53,587	32,989	285,332
Beginning Fund Balance	2,895,824	3,025,986	3,062,350	3,050,111	3,103,698	4,142,963
Ending Fund Balance (Unrestricted)	\$3,025,986	\$3,062,350	\$3,050,111	\$3,103,698	\$3,136,687	\$4,428,295
Fund Balance as % of O&M	62%	57%	53%	51%	49%	59%
Days of Working Capital	223	206	192	184	176	211
Coverage Ratio	5.18	7.50	9.00	10.50	11.91	14.26

TABLE 5.3: SUMMARY PRO FORMA – SCENARIO 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.72	\$12.33	\$13.56	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.18	\$2.53	\$2.78	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	10,364,482	11,758,654	12,797,428	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,571,837)	(5,962,332)	(6,285,117)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,339,818)	(3,282,893)	(4,170,292)	(5,053,328)	(5,831,885)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	44,184	68,671	189,715	127,554	344,044
Change in Net Position after Transfers and Contributions	131,009	(10,035)	13,909	134,406	71,692	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,016,798	3,030,707	3,165,113	4,046,965
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,016,798	\$3,030,707	\$3,165,113	\$3,236,805	\$4,332,297
Fund Balance as % of O&M	62%	58%	54%	53%	51%	57%
Days of Working Capital	223	209	196	191	185	206
Coverage Ratio	5.18	6.53	8.07	9.76	10.96	14.26

TABLE 5.4: SUMMARY PRO FORMA – SCENARIO 3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.44	\$11.69	\$12.86	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	10,004,348	11,039,511	12,008,068	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,499,810)	(5,818,503)	(6,127,245)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(594,000)	(594,000)	(594,000)	(594,000)	(595,000)
Total CIP	(2,339,818)	(3,082,893)	(3,870,292)	(4,653,328)	(5,231,885)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	244,184	80,563	14,400	96,066	344,044
Change in Net Position after Transfers and Contributions	131,009	189,965	25,802	(40,909)	40,204	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,216,798	3,242,599	3,201,691	4,059,832
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,216,798	\$3,242,599	\$3,201,691	\$3,241,894	\$4,345,164
Fund Balance as % of O&M	62%	62%	59%	55%	53%	57%
Days of Working Capital	223	222	212	198	190	207
Coverage Ratio	5.18	6.53	7.58	8.79	9.90	14.26



TABLE 5.5: SUMMARY PRO FORMA – SCENARIO 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10
Base Rate (per Month)	\$9.32	\$9.32	\$10.25	\$11.28	\$12.41	\$16.03
Usage Charge (per Month)	\$1.42	\$1.85	\$2.07	\$2.32	\$2.55	\$3.66
Calculated Connections	23,089	23,320	23,553	23,789	24,026	25,252
Total Operating Revenue	7,955,408	9,089,638	9,950,647	10,922,471	11,878,325	16,046,719
Total Operating Expense	(4,876,421)	(5,208,479)	(5,489,069)	(5,795,095)	(6,101,297)	(7,564,341)
Total Non-Operating Revenue	39,523	39,918	40,317	40,720	41,128	43,226
Total DS	(594,000)	(933,396)	(933,396)	(933,396)	(1,499,056)	(1,500,056)
Total CIP	(2,339,818)	(7,243,498)	(3,503,661)	(4,250,862)	(11,756,043)	(2,751,470)
Net Income (Loss) Before Transfers	184,691	244,184	64,838	(16,162)	63,058	344,044
Change in Net Position after Transfers and Contributions	131,009	189,965	10,076	(71,471)	7,196	285,332
Beginning Fund Balance	2,895,824	3,026,833	3,216,798	3,226,874	3,155,403	3,889,135
Ending Fund Balance (Unrestricted)	\$3,026,833	\$3,216,798	\$3,226,874	\$3,155,403	\$3,162,599	\$4,174,467
Fund Balance as % of O&M	62%	62%	59%	54%	52%	55%
Days of Working Capital	223	222	212	196	187	199
Coverage Ratio	5.18	4.16	4.78	5.49	3.85	5.65

SECTION VI: EVALUATION OF RATE OBJECTIVES

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

- ☞ First, the City wanted to ensure sufficient revenues to cover all operation and maintenance (O&M) expenses while maintaining bond covenants and the appropriate debt service coverage ratio of at least 1.25x.
- ☞ Second, the City wanted to continue to fund capital improvements in the ten-year window using rate revenues, while minimizing future bonding needs and maintaining a fund balance of 50 percent of annual O&M expenses.
- ☞ Third, the rates should evaluate a policy to maintain the existing rate structure based on a base rate assessment plus a usage fee, with an adjustment for a base fee per unit, rather than a base fee per connection. This would result in a fee assessment for multi-unit establishments based on the number of dwelling units or “doors”. The usage fee would continue to be assessed based on flow, regardless of the number of units.
- ☞ Finally, the proposed rate recommendations should be easy to implement and equitably distribute cost relative to demand.

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 maintain the necessary debt service coverage ratios, while providing necessary funding for capital improvement and replacement projects according to the proposed CIP scenarios. While the fund balance is anticipated to increase slightly over time under each scenario, the proportional “Days of Working Capital” will decline as a result of increasing operations and maintenance expenditures. However, the fund balances will achieve the minimum set by the City of maintaining at least 50 percent of O&M expenses in reserve funds by Year 10.

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.

Rate Structure: The adopted rate maintains the existing rate structure with a fee assessment per unit or door.

Equity and Simplicity: The adopted rates are simple to understand and the calculation follows a reasonable methodology by which the rates are assessed. Currently, rates are assessed base fee per connection plus a usage fee. This is intended to assess a fee that is directly related to demand, i.e. wastewater flows. In order to more equitably distribute the base fee assessment, this analysis included an adjustment for a base fee per unit, rather than a base fee per connection. This would result in a fee assessment for multi-unit establishments based on the number of dwelling units or “doors” to more accurately account for the number of residential units. The usage fee would continue to be assessed based on flow, regardless of the number of units.

CUSTOMER IMPACT AND AFFORDABILITY

The City must collect, through monthly rates, the costs of running efficient and effective utilities while making certain that the rates are affordable to the customers to whom the service is provided. The maximum proposed rates by year ten register at 2.23 percent of current median household incomes (MHI), including proposed changes to the water utility rates. An affordability index of 1.6 - 2.6 percent of MHI is used as a benchmark in this analysis, which is the affordability index for a combined annual water and sewer bill for an AA to an A rated sewer or water utility bond. The proposed rates fall within this affordability threshold.² It is important to note that the table below includes the full increase to the sewer and water rates at the end of the pro forma (Fiscal Year 2026) compared to the unadjusted 2015 MHI. Thus, this illustration represents a conservative estimate of affordability.

TABLE 6.1: AFFORDABILITY OF ADOPTED RATES AT END OF TEN YEAR PERIOD

Orem 2015 Median Household Income	\$54,048
Estimate of Annual Sewer Bill	\$544
Estimate of Annual Water Bill	\$663
Total Combined Water & Sewer Annual Bill	\$1,207
% of MHI	2.23%

Source: U.S. Census Bureau 2008-2012 ACS Survey 5-Year Estimates, Selected Economic Characteristics
Estimate of annual bill based on typical single-family dwelling.

² See “2015 Water and Sewer Medians”, December 10, 2014, Fitch Ratings.



APPENDIX A: DETAILED PRO FORMAS



Orem City

Utility Rate Study

Sanitary Sewer

Scenario 1: 5 Year CIP No Bond

		Year 1	Year 2	Year 3	Year 4	Year 5						
		0.5%	27.7%	14.6%	12.8%	10.8%	5.1%	4.2%	3.3%	3.2%	3.3%	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Charges for Services	\$6,444,975	\$6,619,986	\$6,650,408	\$8,494,852	\$9,739,050	\$10,988,633	\$12,178,133	\$12,800,347	\$13,343,477	\$13,778,100	\$14,218,840	\$14,694,408
Estimated Increase from Door to Door Revs			\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Other Revenues (Including Connection Fees)	\$1,562,186	\$500,000	\$505,000	\$510,050	\$515,151	\$520,302	\$525,505	\$530,760	\$536,068	\$541,428	\$546,843	\$552,311
Total Operating Revenue	\$8,007,161	\$7,119,986	\$7,955,408	\$9,804,902	\$11,054,200	\$12,308,935	\$13,503,638	\$14,131,107	\$14,679,544	\$15,119,528	\$15,565,683	\$16,046,719
Operating Expense												
Personal Services	(\$1,830,390)	(\$1,885,302)	(\$1,941,861)	(\$2,000,117)	(\$2,060,120)	(\$2,121,924)	(\$2,185,581)	(\$2,251,149)	(\$2,318,683)	(\$2,388,244)	(\$2,459,891)	(\$2,533,688)
Supplies and Maintenance	(\$714,679)	(\$736,119)	(\$665,041)	(\$849,485)	(\$973,905)	(\$1,098,863)	(\$1,217,813)	(\$1,280,035)	(\$1,334,348)	(\$1,377,810)	(\$1,421,884)	(\$1,469,441)
Administrative Fee	(\$648,162)	(\$667,607)	(\$670,649)	(\$855,093)	(\$979,513)	(\$1,104,472)	(\$1,223,422)	(\$1,285,643)	(\$1,339,956)	(\$1,383,418)	(\$1,427,492)	(\$1,475,049)
Utilities	(\$649,009)	(\$668,479)	(\$688,534)	(\$709,190)	(\$730,465)	(\$752,379)	(\$774,951)	(\$798,199)	(\$822,145)	(\$846,810)	(\$872,214)	(\$898,380)
Contract Services	(\$576,514)	(\$593,809)	(\$611,624)	(\$629,972)	(\$648,872)	(\$668,338)	(\$688,388)	(\$709,040)	(\$730,311)	(\$752,220)	(\$774,787)	(\$798,030)
Equipment Lease and Rentals	(\$11,996)	(\$12,356)	(\$12,727)	(\$13,108)	(\$13,502)	(\$13,907)	(\$14,324)	(\$14,754)	(\$15,196)	(\$15,652)	(\$16,122)	(\$16,605)
Insurance	(\$112,738)	(\$116,120)	(\$119,604)	(\$123,192)	(\$126,888)	(\$130,694)	(\$134,615)	(\$138,654)	(\$142,813)	(\$147,098)	(\$151,510)	(\$156,056)
Changes in Lieu of Property Tax	(\$52,665)	(\$54,245)	(\$55,872)	(\$57,548)	(\$59,275)	(\$61,053)	(\$62,885)	(\$64,771)	(\$66,714)	(\$68,716)	(\$70,777)	(\$72,901)
Miscellaneous	(\$104,167)	(\$107,292)	(\$110,511)	(\$113,826)	(\$117,241)	(\$120,758)	(\$124,381)	(\$128,112)	(\$131,956)	(\$135,914)	(\$139,992)	(\$144,191)
Total Operating Expense	(\$4,700,320)	(\$4,841,330)	(\$4,876,421)	(\$5,351,532)	(\$5,709,780)	(\$6,072,388)	(\$6,426,359)	(\$6,670,356)	(\$6,902,122)	(\$7,115,881)	(\$7,334,669)	(\$7,564,341)
Net Operating Income (Loss)	\$3,306,841	\$2,278,657	\$3,078,986	\$4,453,370	\$5,344,420	\$6,236,548	\$7,077,279	\$7,460,751	\$7,777,422	\$8,003,647	\$8,231,014	\$8,482,378
Total Non Operating Revenue	\$102,717	\$39,132	\$39,523	\$39,918	\$40,317	\$40,720	\$41,128	\$41,539	\$41,954	\$42,374	\$42,798	\$43,226
Total Revenue Available for DS	\$3,409,558	\$2,317,788	\$3,118,509	\$4,493,288	\$5,384,737	\$6,277,268	\$7,118,407	\$7,502,290	\$7,819,377	\$8,046,021	\$8,273,811	\$8,525,603
Debt Service												
1994	(\$246,330)	-	-	-	-	-	-	-	-	-	-	-
2005A	-	-	-	-	-	-	-	-	-	-	-	-
2005B	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-
2010	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
2013 Refunding of 2005A	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2018	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021	-	-	-	-	-	-	-	-	-	-	-	-
Total DS	(\$840,330)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
Total Revenue Available for CIP	\$2,569,228	\$1,723,788	\$2,524,509	\$3,899,288	\$4,790,737	\$5,683,268	\$6,524,407	\$6,908,290	\$7,225,377	\$7,451,021	\$7,678,811	\$7,930,603
Total CIP	-	-	(\$2,340,665)	(\$3,808,706)	(\$4,748,215)	(\$5,574,372)	(\$6,435,555)	(\$6,656,442)	(\$6,884,902)	(\$7,121,196)	(\$7,365,592)	(\$7,586,560)
Proposed: Series 2018 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Total Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Net Income (Loss) Before Transfers	\$2,569,228	\$1,723,788	\$183,845	\$90,582	\$42,522	\$108,896	\$88,851	\$251,848	\$340,474	\$329,824	\$313,220	\$344,044
Contributions from Outside Sources	\$112,960	\$88,692	\$89,579	\$90,475	\$91,380	\$92,294	\$93,217	\$94,149	\$95,090	\$96,041	\$97,002	\$97,972
Contributions from Government Funds	-	-	-	-	-	-	-	-	-	-	-	-
Transfers In	-	-	-	-	-	-	-	-	-	-	-	-
Transfers Out	(\$190,205)	(\$141,843)	(\$143,262)	(\$144,694)	(\$146,141)	(\$147,603)	(\$149,079)	(\$150,569)	(\$152,075)	(\$153,596)	(\$155,132)	(\$156,683)
Change in Net Position	\$2,491,983	\$130,162	\$36,363	(\$12,239)	\$53,587	\$32,989	\$195,428	\$283,489	\$272,270	\$255,089	\$285,332	
Beginning Cash Balance		\$2,895,824	\$3,025,986	\$3,062,350	\$3,050,111	\$3,103,698	\$3,136,687	\$3,136,687	\$3,332,114	\$3,615,604	\$3,887,873	\$4,142,963
Ending Fund Balance		\$3,025,986	\$3,062,350	\$3,050,111	\$3,103,698	\$3,136,687	\$3,332,114	\$3,615,604	\$3,887,873	\$4,142,963	\$4,428,295	
General Fund Restricted (Bond Proceeds)		-	-	-	-	-	-	-	-	-	-	-
Unrestricted	\$2,895,824	\$3,025,986	\$3,062,350	\$3,050,111	\$3,103,698	\$3,136,687	\$3,332,114	\$3,615,604	\$3,887,873	\$4,142,963	\$4,428,295	
Unrestricted Days of Working Capital	-	215	223	206	192	184	176	180	189	197	203	211
Coverage Ratio (w/Impact Fees)		5.18	7.50	9.00	10.50	11.91	12.56	13.09	13.45	13.83	14.26	
Coverage Ratio (w/o Impact Fees)		5.18	7.50	9.00	10.50	11.91	12.56	13.09	13.45	13.83	14.26	



Orem City

Utility Rate Study

Sanitary Sewer

Scenario 2: 7 Year CIP No Bond

		Year 1	Year 2	Year 3	Year 4	Year 5						
		0.5%	17.0%	16.3%	15.3%	9.9%	7.3%	6.7%	4.5%	4.4%	2.5%	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Charges for Services	\$6,444,975	\$6,619,986	\$6,650,408	\$7,779,588	\$9,049,332	\$10,438,352	\$11,471,923	\$12,314,066	\$13,141,891	\$13,733,549	\$14,332,935	\$14,694,408
Estimated Increase from Door to Door Revs			\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Other Revenues (Including Connection Fees)	\$1,562,186	\$500,000	\$505,000	\$510,050	\$515,151	\$520,302	\$525,505	\$530,760	\$536,068	\$541,428	\$546,843	\$552,311
Total Operating Revenue	\$8,007,161	\$7,119,986	\$7,955,408	\$9,089,638	\$10,364,482	\$11,758,654	\$12,797,428	\$13,644,827	\$14,477,958	\$15,074,977	\$15,679,778	\$16,046,719
Operating Expense												
Personal Services	(\$1,830,390)	(\$1,885,302)	(\$1,941,861)	(\$2,000,117)	(\$2,060,120)	(\$2,121,924)	(\$2,185,581)	(\$2,251,149)	(\$2,318,683)	(\$2,388,244)	(\$2,459,891)	(\$2,533,688)
Supplies and Maintenance	(\$714,679)	(\$736,119)	(\$665,041)	(\$777,959)	(\$904,933)	(\$1,043,835)	(\$1,147,192)	(\$1,231,407)	(\$1,314,189)	(\$1,373,355)	(\$1,433,294)	(\$1,469,441)
Administrative Fee	(\$648,162)	(\$667,607)	(\$670,649)	(\$783,567)	(\$910,541)	(\$1,049,443)	(\$1,152,801)	(\$1,237,015)	(\$1,319,797)	(\$1,378,963)	(\$1,438,902)	(\$1,475,049)
Utilities	(\$649,009)	(\$668,479)	(\$688,534)	(\$709,190)	(\$730,465)	(\$752,379)	(\$774,951)	(\$798,199)	(\$822,145)	(\$846,810)	(\$872,214)	(\$898,380)
Contract Services	(\$576,514)	(\$593,809)	(\$611,624)	(\$629,972)	(\$648,872)	(\$668,338)	(\$688,388)	(\$709,040)	(\$730,311)	(\$752,220)	(\$774,787)	(\$798,030)
Equipment Lease and Rentals	(\$11,996)	(\$12,356)	(\$12,727)	(\$13,108)	(\$13,502)	(\$13,907)	(\$14,324)	(\$14,754)	(\$15,196)	(\$15,652)	(\$16,122)	(\$16,605)
Insurance	(\$112,738)	(\$116,120)	(\$119,604)	(\$123,192)	(\$126,888)	(\$130,694)	(\$134,615)	(\$138,654)	(\$142,813)	(\$147,098)	(\$151,510)	(\$156,056)
Changes in Lieu of Property Tax	(\$52,665)	(\$54,245)	(\$55,872)	(\$57,548)	(\$59,275)	(\$61,053)	(\$62,885)	(\$64,771)	(\$66,714)	(\$68,716)	(\$70,777)	(\$72,901)
Miscellaneous	(\$104,167)	(\$107,292)	(\$110,511)	(\$113,826)	(\$117,241)	(\$120,758)	(\$124,381)	(\$128,112)	(\$131,956)	(\$135,914)	(\$139,992)	(\$144,191)
Total Operating Expense	(\$4,700,320)	(\$4,841,330)	(\$4,876,421)	(\$5,208,479)	(\$5,571,837)	(\$5,962,332)	(\$6,285,117)	(\$6,573,100)	(\$6,861,805)	(\$7,106,971)	(\$7,357,488)	(\$7,564,341)
Net Operating Income (Loss)	\$3,306,841	\$2,278,657	\$3,078,986	\$3,881,159	\$4,792,645	\$5,796,323	\$6,512,311	\$7,071,727	\$7,616,153	\$7,968,006	\$8,322,290	\$8,482,378
Total Non Operating Revenue	\$102,717	\$39,132	\$39,523	\$39,918	\$40,317	\$40,720	\$41,128	\$41,539	\$41,954	\$42,374	\$42,798	\$43,226
Total Revenue Available for DS	\$3,409,558	\$2,317,788	\$3,118,509	\$3,921,077	\$4,832,963	\$5,837,043	\$6,553,438	\$7,113,266	\$7,658,108	\$8,010,380	\$8,365,088	\$8,525,603
Debt Service												
1994	(\$246,330)	-	-	-	-	-	-	-	-	-	-	-
2005A	-	-	-	-	-	-	-	-	-	-	-	-
2005B	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-
2010	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
2013 Refunding of 2005A	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2018	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021	-	-	-	-	-	-	-	-	-	-	-	-
Total DS	(\$840,330)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
Total Revenue Available for CIP	\$2,569,228	\$1,723,788	\$2,524,509	\$3,327,077	\$4,238,963	\$5,243,043	\$5,959,438	\$6,519,266	\$7,064,108	\$7,415,380	\$7,770,088	\$7,930,603
Total CIP	-	-	(\$2,339,818)	(\$3,282,893)	(\$4,170,292)	(\$5,053,328)	(\$5,831,885)	(\$6,357,901)	(\$6,884,902)	(\$7,121,196)	(\$7,365,592)	(\$7,586,560)
Proposed: Series 2018 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Total Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Net Income (Loss) Before Transfers	\$2,569,228	\$1,723,788	\$184,691	\$44,184	\$68,671	\$189,715	\$127,554	\$161,365	\$179,205	\$294,184	\$404,496	\$344,044
Contributions from Outside Sources	\$112,960	\$88,692	\$89,579	\$90,475	\$91,380	\$92,294	\$93,217	\$94,149	\$95,090	\$96,041	\$97,002	\$97,972
Contributions from Government Funds	-	-	-	-	-	-	-	-	-	-	-	-
Transfers In	-	-	-	-	-	-	-	-	-	-	-	-
Transfers Out	(\$190,205)	(\$141,843)	(\$143,262)	(\$144,694)	(\$146,141)	(\$147,603)	(\$149,079)	(\$150,569)	(\$152,075)	(\$153,596)	(\$155,132)	(\$156,683)
Change in Net Position	\$2,491,983	\$131,009	(\$10,035)	\$13,909	\$134,406	\$71,692	\$104,945	\$122,220	\$236,629	\$346,366	\$285,332	
Beginning Cash Balance		\$2,895,824	\$3,026,833	\$3,016,798	\$3,016,798	\$3,030,707	\$3,165,113	\$3,236,805	\$3,341,749	\$3,463,970	\$3,700,599	\$4,046,965
Ending Fund Balance		\$3,026,833	\$3,016,798	\$3,030,707	\$3,165,113	\$3,236,805	\$3,341,749	\$3,463,970	\$3,700,599	\$4,046,965	\$4,332,297	\$4,332,297
General Fund Restricted (Bond Proceeds)		-	-	-	-	-	-	-	-	-	-	-
Unrestricted	\$2,895,824	\$3,026,833	\$3,016,798	\$3,030,707	\$3,165,113	\$3,236,805	\$3,341,749	\$3,463,970	\$3,700,599	\$4,046,965	\$4,332,297	
Unrestricted Days of Working Capital	-	215	223	209	196	191	185	183	182	187	198	206
Coverage Ratio (w/Impact Fees)		5.18	6.53	8.07	9.76	10.96	11.91	12.82	13.39	13.99	14.26	
Coverage Ratio (w/o Impact Fees)		5.18	6.53	8.07	9.76	10.96	11.91	12.82	13.39	13.99	14.26	



Orem City

Utility Rate Study

Sanitary Sewer

Scenario 3: 10 Year CIP No Bond

		Year 1	Year 2	Year 3	Year 4	Year 5						
		0.5%	17.0%	11.7%	11.9%	9.9%	8.0%	7.4%	6.8%	6.3%	4.5%	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Charges for Services	\$6,444,975	\$6,619,986	\$6,650,408	\$7,779,588	\$8,689,197	\$9,719,209	\$10,682,563	\$11,535,662	\$12,387,468	\$13,224,428	\$14,062,483	\$14,694,408
Estimated Increase from Door to Door Revs			\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Other Revenues (Including Connection Fees)	\$1,562,186	\$500,000	\$505,000	\$510,050	\$515,151	\$520,302	\$525,505	\$530,760	\$536,068	\$541,428	\$546,843	\$552,311
Total Operating Revenue	\$8,007,161	\$7,119,986	\$7,955,408	\$9,089,638	\$10,004,348	\$11,039,511	\$12,008,068	\$12,866,422	\$13,723,535	\$14,565,856	\$15,409,326	\$16,046,719
Operating Expense												
Personal Services	(\$1,830,390)	(\$1,885,302)	(\$1,941,861)	(\$2,000,117)	(\$2,060,120)	(\$2,121,924)	(\$2,185,581)	(\$2,251,149)	(\$2,318,683)	(\$2,388,244)	(\$2,459,891)	(\$2,533,688)
Supplies and Maintenance	(\$714,679)	(\$736,119)	(\$665,041)	(\$777,959)	(\$868,920)	(\$971,921)	(\$1,068,256)	(\$1,153,566)	(\$1,238,747)	(\$1,322,443)	(\$1,406,248)	(\$1,469,441)
Administrative Fee	(\$648,162)	(\$667,607)	(\$670,649)	(\$783,567)	(\$874,528)	(\$977,529)	(\$1,073,865)	(\$1,159,174)	(\$1,244,355)	(\$1,328,051)	(\$1,411,857)	(\$1,475,049)
Utilities	(\$668,009)	(\$668,479)	(\$688,534)	(\$709,190)	(\$730,465)	(\$752,379)	(\$774,951)	(\$798,199)	(\$822,145)	(\$846,810)	(\$872,214)	(\$898,380)
Contract Services	(\$576,514)	(\$593,809)	(\$611,624)	(\$629,972)	(\$648,872)	(\$668,338)	(\$688,388)	(\$709,040)	(\$730,311)	(\$752,220)	(\$774,787)	(\$798,030)
Equipment Lease and Rentals	(\$11,996)	(\$12,356)	(\$12,727)	(\$13,108)	(\$13,502)	(\$13,907)	(\$14,324)	(\$14,754)	(\$15,196)	(\$15,652)	(\$16,122)	(\$16,605)
Insurance	(\$112,738)	(\$116,120)	(\$119,604)	(\$123,192)	(\$126,888)	(\$130,694)	(\$134,615)	(\$138,654)	(\$142,813)	(\$147,098)	(\$151,510)	(\$156,056)
Changes in Lieu of Property Tax	(\$52,665)	(\$54,245)	(\$55,872)	(\$57,548)	(\$59,275)	(\$61,053)	(\$62,885)	(\$64,771)	(\$66,714)	(\$68,716)	(\$70,777)	(\$72,901)
Miscellaneous	(\$104,167)	(\$107,292)	(\$110,511)	(\$113,826)	(\$117,241)	(\$120,758)	(\$124,381)	(\$128,112)	(\$131,956)	(\$135,914)	(\$139,992)	(\$144,191)
Total Operating Expense	(\$4,700,320)	(\$4,841,330)	(\$4,876,421)	(\$5,208,479)	(\$5,499,810)	(\$5,818,503)	(\$6,127,245)	(\$6,417,419)	(\$6,710,920)	(\$7,005,147)	(\$7,303,398)	(\$7,564,341)
Net Operating Income (Loss)	\$3,306,841	\$2,278,657	\$3,078,986	\$3,881,159	\$4,504,538	\$5,221,008	\$5,880,823	\$6,449,003	\$7,012,615	\$7,560,709	\$8,105,928	\$8,482,378
Total Non Operating Revenue	\$102,717	\$39,132	\$39,523	\$39,918	\$40,317	\$40,720	\$41,128	\$41,539	\$41,954	\$42,374	\$42,798	\$43,226
Total Revenue Available for DS	\$3,409,558	\$2,317,788	\$3,118,509	\$3,921,077	\$4,544,855	\$5,261,728	\$5,921,950	\$6,490,542	\$7,054,569	\$7,603,083	\$8,148,726	\$8,525,603
Debt Service												
1994	(\$246,330)	-	-	-	-	-	-	-	-	-	-	-
2005A	-	-	-	-	-	-	-	-	-	-	-	-
2005B	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-
2010	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
2013 Refunding of 2005A	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2018	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021	-	-	-	-	-	-	-	-	-	-	-	-
Total DS	(\$840,330)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
Total Revenue Available for CIP	\$2,569,228	\$1,723,788	\$2,524,509	\$3,327,077	\$3,950,855	\$4,667,728	\$5,327,950	\$5,896,542	\$6,460,569	\$7,008,083	\$7,553,726	\$7,930,603
Total CIP	-	-	(\$2,339,818)	(\$3,082,893)	(\$3,870,292)	(\$4,653,328)	(\$5,231,885)	(\$5,757,901)	(\$6,271,586)	(\$6,702,834)	(\$7,139,571)	(\$7,586,560)
Proposed: Series 2018 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2021 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Total Bond Proceeds	-	-	-	-	-	-	-	-	-	-	-	-
Net Income (Loss) Before Transfers	\$2,569,228	\$1,723,788	\$184,691	\$244,184	\$80,563	\$14,400	\$96,066	\$138,642	\$188,983	\$305,249	\$414,154	\$344,044
Contributions from Outside Sources	\$112,960	\$88,692	\$89,579	\$90,475	\$91,380	\$92,294	\$93,217	\$94,149	\$95,090	\$96,041	\$97,002	\$97,972
Contributions from Government Funds	-	-	-	-	-	-	-	-	-	-	-	-
Transfers In	-	-	-	-	-	-	-	-	-	-	-	-
Transfers Out	(\$190,205)	(\$141,843)	(\$143,262)	(\$144,694)	(\$146,141)	(\$147,603)	(\$149,079)	(\$150,569)	(\$152,075)	(\$153,596)	(\$155,132)	(\$156,683)
Change in Net Position	\$2,491,983	\$131,009	\$189,965	\$25,802	(\$40,909)	\$40,204	\$82,221	\$131,998	\$247,694	\$356,024	\$414,154	\$472,367
Beginning Cash Balance		\$2,895,824	\$3,026,833	\$3,216,798	\$3,242,599	\$3,201,691	\$3,241,894	\$3,241,894	\$3,324,115	\$3,456,114	\$3,703,808	\$4,059,832
Ending Fund Balance		\$3,026,833	\$3,216,798	\$3,242,599	\$3,201,691	\$3,241,894	\$3,241,894	\$3,324,115	\$3,456,114	\$3,703,808	\$4,059,832	\$4,345,164
General Fund Restricted (Bond Proceeds)		-	-	-	-	-	-	-	-	-	-	-
Unrestricted	\$2,895,824	\$3,026,833	\$3,216,798	\$3,242,599	\$3,201,691	\$3,241,894	\$3,241,894	\$3,324,115	\$3,456,114	\$3,703,808	\$4,059,832	\$4,345,164
Unrestricted Days of Working Capital	-	215	223	222	212	198	190	186	185	190	200	207
Coverage Ratio (w/Impact Fees)			5.18	6.53	7.58	8.79	9.90	10.86	11.81	12.71	13.62	14.26
Coverage Ratio (w/o Impact Fees)			5.18	6.53	7.58	8.79	9.90	10.86	11.81	12.71	13.62	14.26



Orem City

Utility Rate Study

Sanitary Sewer

Scenario 4: Bonding

		Year 1	Year 2	Year 3	Year 4	Year 5						
		0.5%	17.0%	11.0%	11.2%	9.9%	8.0%	7.7%	7.1%	6.6%	4.8%	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Charges for Services	\$6,444,975	\$6,619,986	\$6,650,408	\$7,779,588	\$8,635,496	\$9,602,169	\$10,552,820	\$11,392,974	\$12,275,705	\$13,150,164	\$14,023,480	\$14,694,408
Estimated Increase from Door to Door Revs			\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Other Revenues (Including Connection Fees)	\$1,562,186	\$500,000	\$505,000	\$510,050	\$515,151	\$520,302	\$525,505	\$530,760	\$536,068	\$541,428	\$546,843	\$552,311
Total Operating Revenue	\$8,007,161	\$7,119,986	\$7,955,408	\$9,089,638	\$9,950,647	\$10,922,471	\$11,878,325	\$12,723,734	\$13,611,773	\$14,491,592	\$15,370,322	\$16,046,719
Operating Expense												
Personal Services	(\$1,830,390)	(\$1,885,302)	(\$1,941,861)	(\$2,000,117)	(\$2,060,120)	(\$2,121,924)	(\$2,185,581)	(\$2,251,149)	(\$2,318,683)	(\$2,388,244)	(\$2,459,891)	(\$2,533,688)
Supplies and Maintenance	(\$714,679)	(\$736,119)	(\$665,041)	(\$777,959)	(\$863,550)	(\$960,217)	(\$1,055,282)	(\$1,139,297)	(\$1,227,570)	(\$1,315,016)	(\$1,402,348)	(\$1,469,441)
Administrative Fee	(\$648,162)	(\$667,607)	(\$670,649)	(\$783,567)	(\$869,158)	(\$965,825)	(\$1,060,890)	(\$1,144,906)	(\$1,233,179)	(\$1,320,625)	(\$1,407,956)	(\$1,475,049)
Utilities	(\$649,009)	(\$668,479)	(\$688,534)	(\$709,190)	(\$730,465)	(\$752,379)	(\$774,951)	(\$798,199)	(\$822,145)	(\$846,810)	(\$872,214)	(\$898,380)
Contract Services	(\$576,514)	(\$593,809)	(\$611,624)	(\$629,972)	(\$648,872)	(\$668,338)	(\$688,388)	(\$709,040)	(\$730,311)	(\$752,220)	(\$774,787)	(\$798,030)
Equipment Lease and Rentals	(\$11,996)	(\$12,356)	(\$12,727)	(\$13,108)	(\$13,502)	(\$13,907)	(\$14,324)	(\$14,754)	(\$15,196)	(\$15,652)	(\$16,122)	(\$16,605)
Insurance	(\$112,738)	(\$116,120)	(\$119,604)	(\$123,192)	(\$126,888)	(\$130,694)	(\$134,615)	(\$138,654)	(\$142,813)	(\$147,098)	(\$151,510)	(\$156,056)
Changes in Lieu of Property Tax	(\$52,665)	(\$54,245)	(\$55,872)	(\$57,548)	(\$59,275)	(\$61,053)	(\$62,885)	(\$64,771)	(\$66,714)	(\$68,716)	(\$70,777)	(\$72,901)
Miscellaneous	(\$104,167)	(\$107,292)	(\$110,511)	(\$113,826)	(\$117,241)	(\$120,758)	(\$124,381)	(\$128,112)	(\$131,956)	(\$135,914)	(\$139,992)	(\$144,191)
Total Operating Expense	(\$4,700,320)	(\$4,841,330)	(\$4,876,421)	(\$5,208,479)	(\$5,489,069)	(\$5,795,095)	(\$6,101,297)	(\$6,388,881)	(\$6,688,568)	(\$6,990,294)	(\$7,295,597)	(\$7,564,341)
Net Operating Income (Loss)	\$3,306,841	\$2,278,657	\$3,078,986	\$3,881,159	\$4,461,577	\$5,127,376	\$5,777,029	\$6,334,853	\$6,923,205	\$7,501,298	\$8,074,726	\$8,482,378
Total Non Operating Revenue	\$102,717	\$39,132	\$39,523	\$39,918	\$40,317	\$40,720	\$41,128	\$41,539	\$41,954	\$42,374	\$42,798	\$43,226
Total Revenue Available for DS	\$3,409,558	\$2,317,788	\$3,118,509	\$3,921,077	\$4,501,894	\$5,168,097	\$5,818,156	\$6,376,392	\$6,965,159	\$7,543,672	\$8,117,523	\$8,525,603
Debt Service												
1994	(\$246,330)	-	-	-	-	-	-	-	-	-	-	-
2005A	-	-	-	-	-	-	-	-	-	-	-	-
2005B	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-
2010	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$594,000)	(\$595,000)	(\$595,000)	(\$595,000)
2013 Refunding of 2005A	-	-	-	-	-	-	-	-	-	-	-	-
Proposed: Series 2018	-	-	-	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)	(\$339,396)
Proposed: Series 2021	-	-	-	-	-	-	(\$565,660)	(\$565,660)	(\$565,660)	(\$565,660)	(\$565,660)	(\$565,660)
Total DS	(\$840,330)	(\$594,000)	(\$594,000)	(\$933,396)	(\$933,396)	(\$933,396)	(\$1,499,056)	(\$1,499,056)	(\$1,499,056)	(\$1,500,056)	(\$1,500,056)	(\$1,500,056)
Total Revenue Available for CIP	\$2,569,228	\$1,723,788	\$2,524,509	\$2,987,681	\$3,568,499	\$4,234,701	\$4,319,101	\$4,877,336	\$5,466,104	\$6,043,617	\$6,617,468	\$7,025,548
Total CIP	-	-	(\$2,339,818)	(\$7,243,498)	(\$3,503,661)	(\$4,250,862)	(\$11,756,043)	(\$4,774,233)	(\$5,304,597)	(\$5,756,898)	(\$6,213,169)	(\$6,681,504)
Proposed: Series 2018 Proceeds	-	-	-	\$4,500,000	-	-	-	-	-	-	-	-
Proposed: Series 2021 Proceeds	-	-	-	-	-	-	\$7,500,000	-	-	-	-	-
Total Bond Proceeds	-	-	-	\$4,500,000	-	-	\$7,500,000	-	-	-	-	-
Net Income (Loss) Before Transfers	\$2,569,228	\$1,723,788	\$184,691	\$244,184	\$64,838	(\$16,162)	\$63,058	\$103,103	\$161,506	\$286,719	\$404,298	\$344,044
Contributions from Outside Sources	\$112,960	\$88,692	\$89,579	\$90,475	\$91,380	\$92,294	\$93,217	\$94,149	\$95,090	\$96,041	\$97,002	\$97,972
Contributions from Government Funds	-	-	-	-	-	-	-	-	-	-	-	-
Transfers In	-	-	-	-	-	-	-	-	-	-	-	-
Transfers Out	(\$190,205)	(\$141,843)	(\$143,262)	(\$144,694)	(\$146,141)	(\$147,603)	(\$149,079)	(\$150,569)	(\$152,075)	(\$153,596)	(\$155,132)	(\$156,683)
Change in Net Position	\$2,491,983	-	\$131,009	\$189,965	\$10,076	(\$71,471)	\$7,196	\$46,682	\$104,522	\$229,164	\$346,168	\$285,332
Beginning Cash Balance			\$2,895,824	\$3,026,833	\$3,216,798	\$3,226,874	\$3,155,403	\$3,162,599	\$3,209,281	\$3,313,803	\$3,542,967	\$3,889,135
Ending Fund Balance			\$3,026,833	\$3,216,798	\$3,226,874	\$3,155,403	\$3,162,599	\$3,209,281	\$3,313,803	\$3,542,967	\$3,889,135	\$4,174,467
General Fund Restricted (Bond Proceeds)			-	-	-	-	-	-	-	-	-	-
Unrestricted	\$2,895,824	\$3,026,833	\$3,216,798	\$3,226,874	\$3,155,403	\$3,162,599	\$3,209,281	\$3,313,803	\$3,542,967	\$3,889,135	\$4,174,467	\$4,174,467
Unrestricted Days of Working Capital	-	215	223	222	212	196	187	181	178	182	192	199
Coverage Ratio (w/Impact Fees)			5.18	4.16	4.78	5.49	3.85	4.23	4.62	5.00	5.38	5.65
Coverage Ratio (w/o Impact Fees)			5.18	4.16	4.78	5.49	3.85	4.23	4.62	5.00	5.38	5.65