

October 20, 2020

2020 Sewer Rate Study:

# The City of Salida, CO



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**Prepared by:**

Ehlers  
N21W23350 Ridgeview  
Parkway West, Suite 100  
Waukesha, WI 53188

**Advisors:**

Brian Roemer  
Municipal Advisor  
James Mann  
Principal/Senior Municipal Advisor

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## Executive Summary

### KEY FINDINGS

- The Sewer Utility's (the "Utility") last rate increase was effective for January 2020.
- As of December 31, 2019, the Utility has a cash balance of \$3,308,556 with \$986,683 in funds designated as restricted and \$2,321,873 unrestricted.
- Presently, residential customers pay a monthly service (fixed) charge (which includes 2,000 gallons of usage) and a volumetric rate per 1,000 gallons.
- Commercial customers pay a monthly service (fixed) charge based on meter size (which does not include 2,000 gallons of usage) and a volumetric rate per 1,000 gallons.
- Sewer usage is determined by the customer's water usage unless otherwise noted.
- As of 12/31/2019 the Sewer Utility had \$10,661,388 in debt outstanding.

Further description and analysis of these findings are found in this Executive Summary, the Study and its Sections.

### RECOMMENDATIONS

- We recommend the Utility continue to charge users a fixed and volumetric rate each billing period (monthly).
- To fund its Capital Improvement Plan ("CIP"), we recommend the Utility use debt and cash financing.
- Based on our projections,
  - The City will need to increase sewer rates in order to close on the Clean Water Fund Loan
  - if the City adopts the recommended rates, the sewer rate revenue generated will adequately meet the Utility's revenue needs to fund all the Utility's known financial obligations as depicted in this study.
- The typical residential customer at average consumption will experience a 69.3% (\$17.37) increase to their total quarterly bill at the recommended rates. This increase is depicted as phased-in over a ten-year period.
- As part of the Long-Range Cash Flow Analysis, Section 3, additional inflationary increases are depicted to maintain with an assumed increase in O&M expense.

Based on historical performance and the results of the Study, we recommend the City adopt the proposed rate schedule as shown in Section 2 Table 13. These rate adjustments' impact on the average residential user is a 69.3% monthly increase to their bill. Further illustration of the impact on other customer classes is seen in Section 2, Table 17. We also



recommend that these changes be adopted 1) congruent with the meter read cycle for ease of administration and 2) as soon as practical to expedite the recovery of the Utility's financial obligations.

Regarding future CIP needs as described in this Executive Summary, it is recommended the City use cash to finance the projects. However, planned future projects can be altered/removed and market conditions can change; and upon occurrence, future recommendations of debt financing may need to be revised. Other future capital improvements not listed within the study are outside the scope of the future recommended rate increases and debt instruments presented. Another rate study should be completed if additional future capital projects are added to the CIP. Lastly, the Utility should continue to monitor the need for future capital improvements and its ability to cash or debt finance their costs, adjusting the rate structure as needed through benchmarked reserves.

It is recommended that the City continue to annually monitor the sewer rates and evaluate the need to adopt future rate increases shown in Section 3, the Long-Range Cash Flow Analysis, to maintain financial health. Due to changes in customer count, usage, and capital planning, the recommended schedule to follow for completing rate studies is every three to five years. It is also further recommended that the City monitor existing and targeted cash balances within the Sewer Fund to bring them to a minimum recommended threshold. The minimum recommended threshold for unrestricted cash balance is equal to 150 days of unrestricted cash available for budgeted operations expenses as recommended for government-owned utilities by the major rating agencies. This will allow the utility to have reserves available to meet expenses, cope with emergencies and navigate any business interruptions.

Further depiction of the calculation and derivation of these recommendations are found in Sections 2 and 3. The proceeding Sections reveal the results of the Study, Long-Range Cash Flow Analysis and financing of the CIP.

## **Introduction and Overview**

The City engaged Ehlers in 2020 to perform a Sewer Rate Study (the "Study"). The primary goal of the study is to make recommendations for self-sufficient user rates to meet all operating and capital expenses of the Utility.

Along with the Study, the City has engaged Ehlers to complete a long-range cash flow analysis for the Utility which develops recommendations for future rate increases required to support the Utility's CIP, and projected increases to the sewer operating budget. Lastly, the study develops recommendations about how to pay for capital projects in each year through a combination of debt instruments and available cash. This Executive Summary



identifies the findings, recognizes the methodology used, and reviews the results of the Study completed for the City.

## RATE SETTING OBJECTIVES

When designing rates, we consider many generally accepted practices and industry standards. The subsequent guidelines were followed in completing the rate design portion of the Study.

- Rates should be fair and equitable to all customers
- Rates should be easy to administer and to understand
- Rates should be defensible

## KEY ASSUMPTIONS

- The study develops recommended user rates based on a 2020 test year.
- The recommended rates follow the City's Code of Ordinances Chapter 13 including
  - Section 3-30(c): Wastewater charges for all users of the City's wastewater system shall consist of a fixed service charge and a volume charge, described as follows, which is based upon the quantity of water delivered to the customer, all as prescribed by separate resolution of the City Council, as may be amended from time to time.
- The study was completed using the Utility-Basis to determine a revenue requirement, explained further in the "Study Methodology" Section.
- 2020 flow projections are based on historical averages. Customer counts and usage beyond 2020 were used from furnished City projections.
- Operating expenses beyond the 2020 budget were projected at 3% increases per year.

## STUDY PURPOSE

Several goals were established for the Study, including:

1. Assess financial performance trends in recent past.
2. Develop user rates at a level where the Utility is self-sufficient, meaning it is generating adequate revenues from user rates to pay for all outstanding financial obligations.
3. Develop user rates at a level where the Utility is building adequate cash to maintain certain benchmarked levels and fund future CIP projects.
4. Incorporate the City's CIP for the Sewer utility.



5. Develop a rate structure that is fair and equitable for all customer classes.

## STUDY METHODOLOGY AND USER RATE PERFORMANCE

Rate development and planning require projections of future revenue needs. To establish those revenue needs, there are two generally accepted methodologies, the cash and utility-based methods. Under the utility-based method, a revenue requirement is established for a test year using several components. These components include: The Utility's budgeted operation and maintenance expenses, transfers, depreciation, and a "fair" return on rate base. Conversely, the cash-based method looks at the Utility's budgeted operation and maintenance expenses, transfers, debt service and cash funded capital. The components added together net of other revenues not generated through user rates serve as the requirement that should be recovered through user rates. This study was performed on a utility basis since the system has system development fees which are designed to have growth pay for growth looking at the utilities capital needs. Therefore, the proposed rates are designed to recover the current operating and aging infrastructure replacement needs. Due to the utility's large depreciation expense the utility did not need to have a ROR above zero.

When financially evaluating a utility, there are several benchmarks to consider. According to rating agencies and underwriters, a utility's available cash is a high indicator of financial stability in that strong liquidity provides a cushion against a limited ability to raise rates quickly to address unanticipated disruptions or capital needs. Existing user rates revenue will be inadequate to maintain debt coverage as covenanted in the outstanding and projected revenue bonds for the utility and ultimately pay for future capital improvements expenditures. On a cash basis, the current revenues are adequate to fund only Operating and Maintenance expenses and Outstanding Debt but will need an increase as the debt burden increases. Table 2 in Section 1 of the Sewer Rate Study depicts how rates have been performing compared to the required revenues under both approaches. The rate recommendations developed were to recover the revenue requirements for the test year 2020.

## IMPLEMENTATION OF FUTURE PROJECTS

The City has identified a CIP that will provide for reinvestment and maintenance of the Utility infrastructure. The major projects in the CIP include:

- Infrastructure Upgrades and Replacements: \$1.75M over the five years depicted
- Phosphorus Removal: \$0.56M over the five years depicted

We have only included future CIP costs that were known or estimated. We recommend updating the Study if the City intends to add or adjust projects. No projected depicted are attributable to growth as projects are added that would be attributable to growth the



System Development Fees should be updated. In addition, the Poncha Springs Interceptor is not considered for this Study due to the current status of this project's consideration. For more detail on this project and its relation to this Study see ALTERNATIVES & OTHER CONSIDERATIONS Section below.

## **PROJECTED FUTURE DEBT CONSIDERATIONS**

To the extent debt instruments are depicted, it was assumed that the City would issue debt instruments for future projects with useful lives of greater than 20 years. However, given the furnished CIP and the Cash Position the Utility finds itself, all of the CIP is depicted as funded with cash. Consideration should be given to any debt issuance recommended after 2020, at the time planning to finance the projects, as other debt instruments may be more attractive to the Utility at that time.

## **ALTERNATIVES & OTHER CONSIDERATIONS**

It is our understanding that the City will be reconstructing the Poncha Springs interceptor in the next ten years. In addition, the City hopes to fairly and equitably allocate the costs of that project by both outside versus inside users and growth versus existing usage. As the City contemplates how to fund various phases of the Poncha Springs interceptor the City should isolate user rate charge schedule between Poncha Springs (and other outside customers as necessary) and inside customers. This would recognize that various users, inside and outside, use components of the system differently. In order to properly allocate the costs of the system the City should:

1. determine portions of customers that use and do not use various components of the system;
2. segregate the customer classes by inside and outside to be able to isolate billable data (customer count and usage);
3. similar to the commercial class have other customer classes segregated by meter size

Should the utility identify growth portions attributable to the sizing of the Poncha Springs Interceptor the System Development Fees should be updated. With no direct furnished growth capital items, the System Development Fees were not considered. Please reference Appendix A for our Preliminary Analysis of the Impact of the Poncha Springs Interceptor.

## **ACKNOWLEDGEMENTS**

Utility rate studies are a cooperative effort. We would like to acknowledge the following City staff members for their contributions towards this study: Aimee Tihonovich, Finance Director; David Lady, Director of Public Works; Drew Nelson, City Administrator; and Renee Thornoff, Staff Accountant.



## 2020 Sewer Rate Study

### Section 1 — Historical Performance

City of Salida, CO

# Table 1

## Sewer Rate Performance

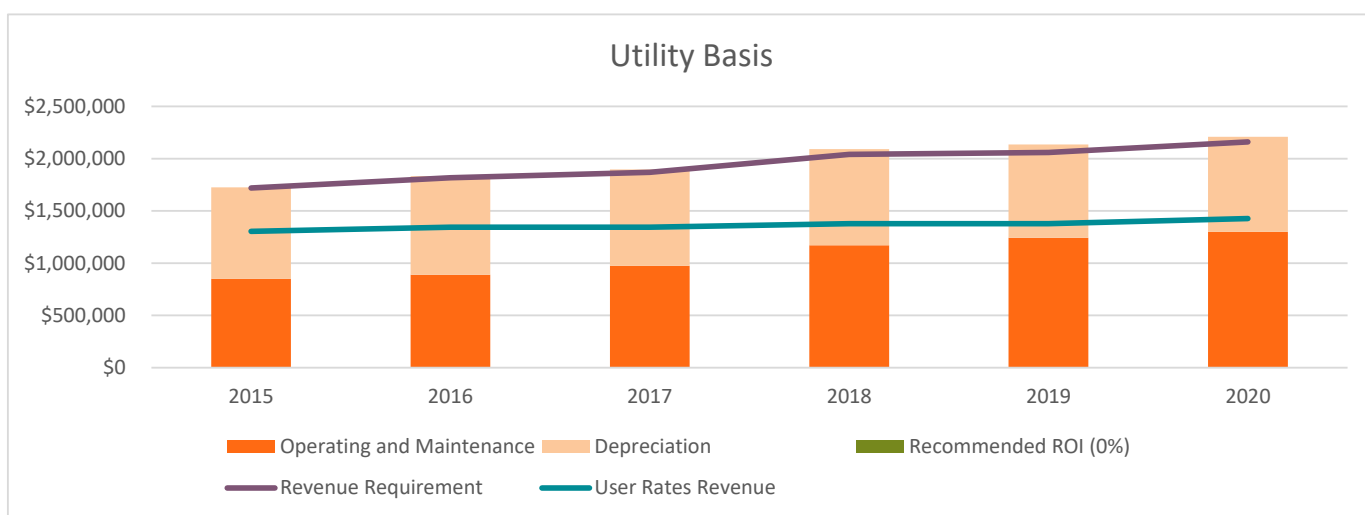
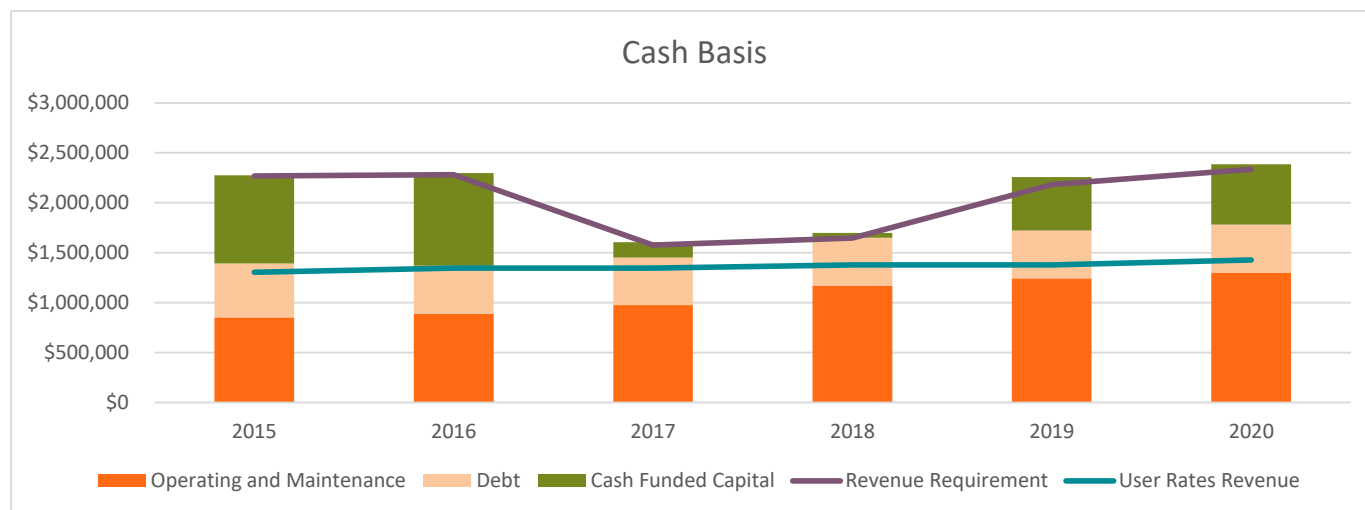
City of Salida, CO

Revenue Requirement		Shown with no increase				Est	Budget
Component	Description	2015	2016	2017	2018	2019	2020
<b>Cash Basis</b>							
1	Operating and Maintenance	\$851,487	\$889,167	\$976,113	\$1,171,336	\$1,242,771	\$1,300,200
2	Debt	\$541,178	\$479,832	\$475,737	\$479,208	\$479,178	\$480,405
3	Cash Funded Capital	\$882,093	\$928,272	\$152,721	\$47,251	\$535,644	\$605,000
Less:							
	Other Revenue	\$1	\$250	\$489	\$340	\$162	\$0
	Interest Income	\$7,032	\$15,145	\$27,203	\$50,068	\$75,547	\$50,000
	Revenue Requirement (Costs less Other Income)	\$2,267,725	\$2,281,876	\$1,576,879	\$1,647,387	\$2,181,883	\$2,335,605
	User Rates Revenue	\$1,304,100	\$1,345,055	\$1,345,095	\$1,377,458	\$1,378,100	\$1,427,000
	Rate Adequacy	(\$963,625)	(\$936,821)	(\$231,784)	(\$269,929)	(\$803,783)	(\$908,605)
	Dev. Fees	\$1,217,203	\$697,682	\$470,919	\$826,859	\$677,548	\$450,000
<b>Utility Basis</b>							
1	Operating and Maintenance	\$851,487	\$889,167	\$976,113	\$1,171,336	\$1,242,771	\$1,300,200
2	Depreciation	\$874,374	\$942,982	\$921,085	\$919,382	\$892,838	\$909,433
	NIRB	\$19,211,883	\$19,030,484	\$18,879,325	\$18,066,293	\$17,458,482	\$17,119,371
3	Recommended ROI (0%)	\$0	\$0	\$0	\$0	\$0	\$0
Less:							
	Other Revenue	\$1	\$250	\$489	\$340	\$162	\$0
	Interest Income	\$7,032	\$15,145	\$27,203	\$50,068	\$75,547	\$50,000
	Revenue Requirement (Costs less Other Income)	\$1,718,828	\$1,816,754	\$1,869,506	\$2,040,310	\$2,059,900	\$2,159,633
	User Rates Revenue	\$1,304,100	\$1,345,055	\$1,345,095	\$1,377,458	\$1,378,100	\$1,427,000
	Rate Adequacy	(\$414,728)	(\$471,699)	(\$524,411)	(\$662,852)	(\$681,800)	(\$732,633)



## Table 2 Sewer Utility Rate Performance Charts

City of Salida, CO



**Table 3**  
**Sewer Utility Schedule of Revenue Debt Outstanding**

*City of Salida, CO*

NAME	Water and Sewer Revenue Bonds Series 2013			Existing Revenue Sewer Debt Summary					
DATED AMT MAT RATE	3/27/2013 \$12,103,000 3/27 & 9/27 2.50%								
YEAR	Principal	Rate	Interest	TOTAL PRIN	TOTAL INT	TOTAL P & I	PRINC OUTSTND	PRINC %PAID	YEAR
2019	209,915	2.50%	270,490	209,915	270,490	480,405	10,662,139	1.93%	2019
2020	215,195	2.50%	265,210	215,195	265,210	480,405	10,446,944	3.91%	2020
2021	220,609	2.50%	259,796	220,609	259,796	480,405	10,226,335	5.94%	2021
2022	226,159	2.50%	254,246	226,159	254,246	480,405	10,000,177	8.02%	2022
2023	231,848	2.50%	248,557	231,848	248,557	480,405	9,768,329	10.15%	2023
2024	237,680	2.50%	242,725	237,680	242,725	480,405	9,530,648	12.34%	2024
2025	243,659	2.50%	236,745	243,659	236,745	480,405	9,286,989	14.58%	2025
2026	249,789	2.50%	230,616	249,789	230,616	480,405	9,037,200	16.88%	2026
2027	256,073	2.50%	224,332	256,073	224,332	480,405	8,781,127	19.23%	2027
2028	262,515	2.50%	217,890	262,515	217,890	480,405	8,518,612	21.65%	2028
2029	269,119	2.50%	211,286	269,119	211,286	480,405	8,249,494	24.12%	2029
2030	275,889	2.50%	204,516	275,889	204,516	480,405	7,973,605	26.66%	2030
2031	282,829	2.50%	197,576	282,829	197,576	480,405	7,690,776	29.26%	2031
2032	289,944	2.50%	190,461	289,944	190,461	480,405	7,400,833	31.93%	2032
2033	297,238	2.50%	183,167	297,238	183,167	480,405	7,103,595	34.66%	2033
2034	304,715	2.50%	175,690	304,715	175,690	480,405	6,798,880	37.46%	2034
2035	312,381	2.50%	168,024	312,381	168,024	480,405	6,486,499	40.34%	2035
2036	320,239	2.50%	160,166	320,239	160,166	480,405	6,166,260	43.28%	2036
2037	328,295	2.50%	152,110	328,295	152,110	480,405	5,837,966	46.30%	2037
2038	336,554	2.50%	143,851	336,554	143,851	480,405	5,501,412	49.40%	2038
2039	345,020	2.50%	135,385	345,020	135,385	480,405	5,156,392	52.57%	2039
2040	353,699	2.50%	126,706	353,699	126,706	480,405	4,802,693	55.83%	2040
2041	362,597	2.50%	117,808	362,597	117,808	480,405	4,440,096	59.16%	2041
2042	371,719	2.50%	108,686	371,719	108,686	480,405	4,068,377	62.58%	2042
2043	381,070	2.50%	99,335	381,070	99,335	480,405	3,687,307	66.08%	2043
2044	390,656	2.50%	89,749	390,656	89,749	480,405	3,296,651	69.68%	2044
2045	400,483	2.50%	79,921	400,483	79,921	480,405	2,896,168	73.36%	2045
2046	410,558	2.50%	69,847	410,558	69,847	480,405	2,485,609	77.14%	2046
2047	420,886	2.50%	59,519	420,886	59,519	480,405	2,064,723	81.01%	2047
2048	431,474	2.50%	48,931	431,474	48,931	480,405	1,633,249	84.98%	2048
2049	442,328	2.50%	38,077	442,328	38,077	480,405	1,190,921	89.05%	2049
2050	453,456	2.50%	26,949	453,456	26,949	480,405	737,465	93.22%	2050
2051	464,863	2.50%	15,542	464,863	15,542	480,405	272,602	97.49%	2051
2052	272,602	2.50%	3,848	272,602	3,848	276,449	0	100.00%	2052
<b>TOTALS</b>	<b>10,872,054</b>		<b>5,257,759</b>	<b>10,872,054</b>	<b>5,257,759</b>	<b>16,129,813</b>			

**Notes:**

## Table 4 Sewer Utility Cash Flow Analysis - Historical 2015-2019

*City of Salida, CO*

	Actual				Estimated
	2015	2016	2017	2018	2019
<b>Revenues</b>					
Total Revenues from User Rates	\$1,304,100	\$1,345,055	\$1,345,095	\$1,377,458	\$1,378,100
Other Revenues					
Interest Income	\$7,032	\$15,145	\$27,203	\$50,068	\$75,547
Other Income	\$1	\$250	\$489	\$340	\$162
Total Other Revenues	\$7,033	\$15,395	\$27,692	\$50,408	\$75,709
<b>Total Revenues</b>	<b>\$1,311,133</b>	<b>\$1,360,450</b>	<b>\$1,372,787</b>	<b>\$1,427,866</b>	<b>\$1,453,809</b>
<b>Expenses</b>					
Operating and Maintenance	\$851,487	\$889,167	\$976,113	\$1,171,336	\$1,242,771
PILOT Payment	\$0	\$0	\$0	\$0	\$0
Net Before Debt Service and Capital Expenditures	\$459,646	\$471,283	\$396,674	\$256,530	\$211,038
Debt Service					
Existing Debt P&I <sup>1</sup>	\$541,178	\$479,832	\$475,737	\$479,208	\$479,178
New (2020-2029) Debt Service P&I					
Total Debt Service	\$541,178	\$479,832	\$475,737	\$479,208	\$479,178
Transfer In (Out)/Cap. Contrib./Misc.	\$738,100	\$697,681	\$490,732	\$811,985	\$657,730
Capital Improvements	\$882,093	\$928,272	\$152,721	\$47,251	\$535,644
Bonds Issued/Grants/Aid	\$0	\$0	\$0	\$0	\$0
Reconcile to Audit	\$467,149	(\$67,657)	(\$35,852)	(\$13,139)	\$303,664
<b>Net Annual Cash Flow</b>	<b>\$241,624</b>	<b>(\$306,797)</b>	<b>\$223,096</b>	<b>\$528,917</b>	<b>\$157,611</b>
<u>Restricted and Unrestricted Cash Balance:</u>					
Balance at first of year		\$2,705,729	\$2,398,932	\$2,622,028	\$3,150,945
Net Annual Cash Flow Addition/(subtraction)		(\$306,797)	\$223,096	\$528,917	\$157,611
Balance at end of year	\$2,705,729	\$2,398,932	\$2,622,028	\$3,150,945	\$3,308,556

**Notes:**

## Table 5

### Sewer Utility Financial Benchmarking Analysis

City of Salida, CO

	2015	2016	Actual 2017	2018	2019	Est. 2020
<b>Target minimum cash balance</b>						
Target minimum working capital - Ehlers <sup>1</sup>	924,416	963,794	1,064,876	1,100,563	1,130,505	1,150,008
Actual Days Cash Available - Moody's <sup>2</sup>	933	985	980	982	682	523
Target minimum working capital - S&P <sup>3</sup>	933	985	980	982	682	523
Actual working capital-cash balance	2,705,729	2,398,932	2,622,028	3,150,945	3,308,556	2,849,951
Over (Under) Ehlers target	1,781,314	1,435,139	1,557,152	2,050,382	2,178,051	1,699,943
Over (Under) Moody's target (150 days)	783	835	830	832	532	373
Over (Under) Ehlers target (150 days)	783	835	830	832	532	373

**Notes:**

- 1) Target capital equals 6 mos of next year's operating expenses, including depreciation, plus 100% of debt.
- 2) Moody's Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation
- 3) S&P Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation; include designated reserve funds: ERFs, RSFs, etc

**Rate of Return**

Average Utility Plant in Service	24,834,679	25,528,144	26,298,072	26,391,741	26,676,768	27,247,090
Less: Utility Plant Accumulated Depreciation	5,622,796	6,497,660	7,418,747	8,325,448	9,218,286	10,127,719
Average Net Investment Rate Base (NIRB)	19,211,883	19,030,484	18,879,325	18,066,293	17,458,482	17,119,371
Net Operating Income	(421,760)	(486,844)	(551,614)	(712,920)	(757,347)	(782,633)
ROR	-2.20%	-2.56%	-2.92%	-3.95%	-4.34%	-4.57%

**Cost Recovery**

Operating Revenues	1,304,101	1,345,305	1,345,584	1,377,798	1,378,262	1,427,000
Operating Expenses incl. Depr & Amortization	1,725,861	1,832,149	1,897,198	2,090,718	2,135,609	2,209,633
Cost Recovery	0.76	0.73	0.71	0.66	0.65	0.65
Cost Recovery w/o Depr.	1.53	1.51	1.38	1.18	1.11	1.10

**Notes:**

This operating ratio indicates whether operating revenues (mostly charges to customers) were sufficient to cover operations and capital (in the form of depreciation) for the water and/or wastewater utility in the fiscal year. A ratio of less than 1 could be a sign of financial concern. In general, this ratio should be higher than 1 to accommodate future capital investments.

**Leverage**

Total Long-Term Debt	11,471,101	11,276,153	11,076,301	10,871,422	10,661,388	10,446,944
Total Net Assets	24,834,679	25,528,144	26,298,072	26,391,741	26,676,768	27,247,090
Debt-to Equity Ratio	0.46	0.44	0.42	0.41	0.40	0.38

**Notes:**

This indicator measures the existing level of leveraging of assets, and is used by funders and bond rating agencies to evaluate the risk of providing additional loans to the utility. The ratio indicates the amount of long-term debt that exists for every \$1 of assets (fund equity). A utility with a ratio greater than 1.0 has more long-term debt than equity in the system's assets. There are no natural benchmarks for this indicator, and funders and bond rating agencies will assess this ratio in various ways. In general, the higher this ratio, the more likely the utility will be considered to be over-leveraged and the more difficult it will be for the utility to obtain additional loans. For this ratio, Net Assets are equal to the Net Investment Rate Base of the utility.

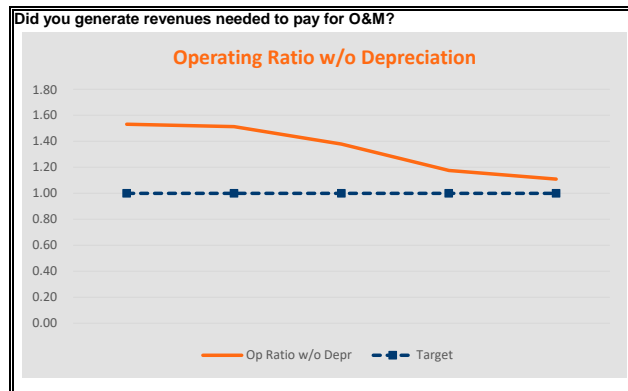
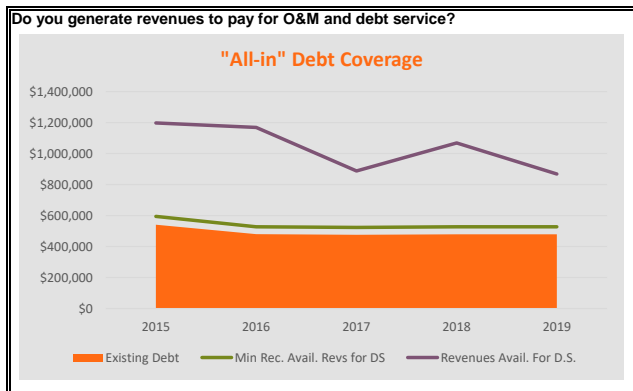
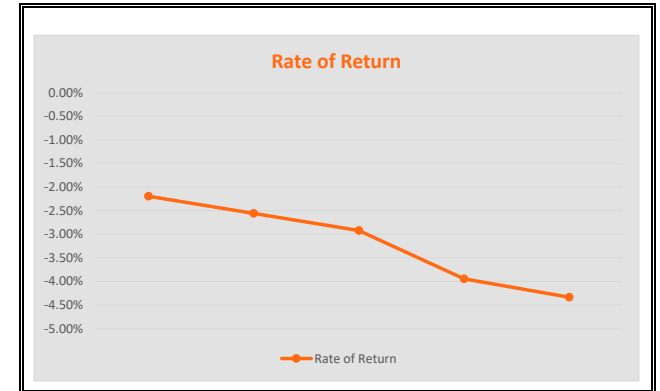
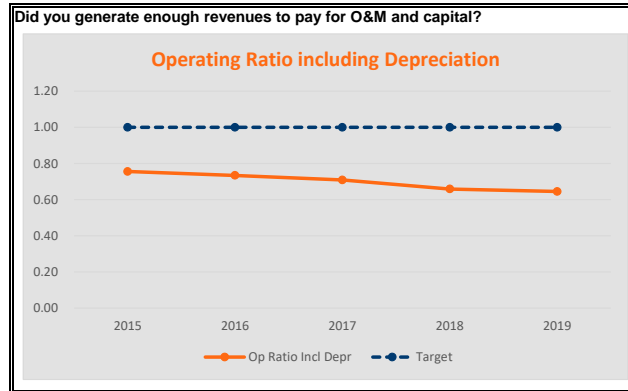
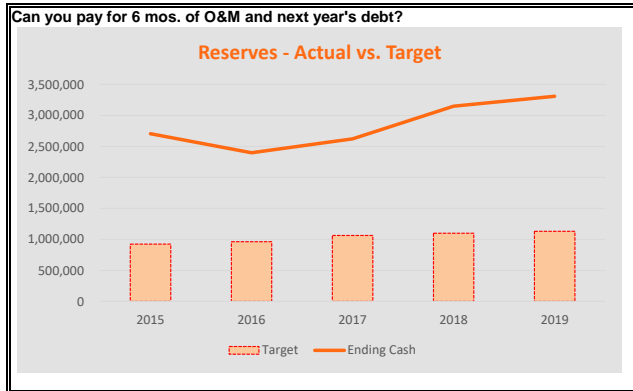
**Condition of Assets:**

Accumulated Depreciation Expense	5,622,796	6,497,660	7,418,747	8,325,448	9,218,286	10,127,719
Average Total Plant in Service	24,834,679	25,528,144	26,298,072	26,391,741	26,676,768	27,247,090
Asset Depreciation	18.46%	20.29%	22.00%	23.98%	25.68%	27.10%

**Notes:**

This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy of this indicator relies heavily on the accuracy of the depreciation schedule, and historic pricing likely distorts this indicator (newer utilities may be slightly disadvantaged as a result).

**Table 6**  
**Sewer Utility Financial Health Charts**  
*City of Salida, CO*



**Table 3**  
**Sewer Utility Schedule of Revenue Debt Outstanding**

*City of Salida, CO*

NAME	Water and Sewer Revenue Bonds Series 2013			Existing Revenue Sewer Debt Summary					
DATED AMT MAT RATE	3/27/2013 \$12,103,000 3/27 & 9/27 2.50%								
YEAR	Principal	Rate	Interest	TOTAL PRIN	TOTAL INT	TOTAL P & I	PRINC OUTSTND	PRINC %PAID	YEAR
2019	209,915	2.50%	270,490	209,915	270,490	480,405	10,662,139	1.93%	2019
2020	215,195	2.50%	265,210	215,195	265,210	480,405	10,446,944	3.91%	2020
2021	220,609	2.50%	259,796	220,609	259,796	480,405	10,226,335	5.94%	2021
2022	226,159	2.50%	254,246	226,159	254,246	480,405	10,000,177	8.02%	2022
2023	231,848	2.50%	248,557	231,848	248,557	480,405	9,768,329	10.15%	2023
2024	237,680	2.50%	242,725	237,680	242,725	480,405	9,530,648	12.34%	2024
2025	243,659	2.50%	236,745	243,659	236,745	480,405	9,286,989	14.58%	2025
2026	249,789	2.50%	230,616	249,789	230,616	480,405	9,037,200	16.88%	2026
2027	256,073	2.50%	224,332	256,073	224,332	480,405	8,781,127	19.23%	2027
2028	262,515	2.50%	217,890	262,515	217,890	480,405	8,518,612	21.65%	2028
2029	269,119	2.50%	211,286	269,119	211,286	480,405	8,249,494	24.12%	2029
2030	275,889	2.50%	204,516	275,889	204,516	480,405	7,973,605	26.66%	2030
2031	282,829	2.50%	197,576	282,829	197,576	480,405	7,690,776	29.26%	2031
2032	289,944	2.50%	190,461	289,944	190,461	480,405	7,400,833	31.93%	2032
2033	297,238	2.50%	183,167	297,238	183,167	480,405	7,103,595	34.66%	2033
2034	304,715	2.50%	175,690	304,715	175,690	480,405	6,798,880	37.46%	2034
2035	312,381	2.50%	168,024	312,381	168,024	480,405	6,486,499	40.34%	2035
2036	320,239	2.50%	160,166	320,239	160,166	480,405	6,166,260	43.28%	2036
2037	328,295	2.50%	152,110	328,295	152,110	480,405	5,837,966	46.30%	2037
2038	336,554	2.50%	143,851	336,554	143,851	480,405	5,501,412	49.40%	2038
2039	345,020	2.50%	135,385	345,020	135,385	480,405	5,156,392	52.57%	2039
2040	353,699	2.50%	126,706	353,699	126,706	480,405	4,802,693	55.83%	2040
2041	362,597	2.50%	117,808	362,597	117,808	480,405	4,440,096	59.16%	2041
2042	371,719	2.50%	108,686	371,719	108,686	480,405	4,068,377	62.58%	2042
2043	381,070	2.50%	99,335	381,070	99,335	480,405	3,687,307	66.08%	2043
2044	390,656	2.50%	89,749	390,656	89,749	480,405	3,296,651	69.68%	2044
2045	400,483	2.50%	79,921	400,483	79,921	480,405	2,896,168	73.36%	2045
2046	410,558	2.50%	69,847	410,558	69,847	480,405	2,485,609	77.14%	2046
2047	420,886	2.50%	59,519	420,886	59,519	480,405	2,064,723	81.01%	2047
2048	431,474	2.50%	48,931	431,474	48,931	480,405	1,633,249	84.98%	2048
2049	442,328	2.50%	38,077	442,328	38,077	480,405	1,190,921	89.05%	2049
2050	453,456	2.50%	26,949	453,456	26,949	480,405	737,465	93.22%	2050
2051	464,863	2.50%	15,542	464,863	15,542	480,405	272,602	97.49%	2051
2052	272,602	2.50%	3,848	272,602	3,848	276,449	0	100.00%	2052
<b>TOTALS</b>	<b>10,872,054</b>		<b>5,257,759</b>	<b>10,872,054</b>	<b>5,257,759</b>	<b>16,129,813</b>			

**Notes:**



## 2020 Sewer Rate Study

### Section 2 — Sewer Rate Model

City of Salida, CO

## Table 7

### Projected Test Year 2020 WWTF Flows and Loadings

*City of Salida, CO*

	Flow (1,000 Gal)				BOD (Lbs)	TSS (Lbs)
	2017	2018	2019	2020		
<b>Customers</b>						
Residential	56,682	55,113	49,985	55,000	103,208	103,208
Commercial	110,323	118,682	117,439	120,000	305,244	497,398
Subtotal Customers	167,005	173,795	167,424	175,000	408,452	600,605
<b>Unmetered Customers</b>						
All	13,596	13,596	13,596	17,160	32,201	32,201
Subtotal Unmetered Customers	13,596	13,596	13,596	17,160	32,201	32,201
<b>Wastewater Treatment Facility</b>						
Total Billable	180,601	187,391	181,020	192,160	440,652	632,806
<b>Total For Rate Calcs</b>				<b>192,160</b>	<b>440,652</b>	<b>632,806</b>

**Notes:**



## Table 8

### Projected Test Year 2020 Meter Counts

*City of Salida, CO*

Total Meters						
Meter Size	Inside Customers					Total
	Residential -SF	Res w/ ADU	MF	Commercial	Sewer Only	
ADU	0	101	0	0	0	101
Res. Service	2,500	0	156	0	130	2,786
5/8" & 3/4"	0	0	0	315	0	315
1"	0	0	0	100	0	100
1 1/2"	0	0	0	31	0	31
2"	0	0	0	23	0	23
3"	0	0	0	6	0	6
4"	0	0	0	6	0	6
	2,500	101	156	481	130	3,368

Equivalent Meters							
Meter Size	Equiv. Ratio	Inside Customers					Total
		Residential -SF	Res w/ ADU	MF	Commercial	Sewer Only	
ADU	0.5	-	50.5	-	-	-	50.5
Res. Service	1.0	2,500.0	-	156.0	-	130.0	2,786.0
5/8" & 3/4"	1.1	-	-	-	346.5	-	346.5
1"	2.0	-	-	-	200.0	-	200.0
1 1/2"	3.0	-	-	-	93.0	-	93.0
2"	4.0	-	-	-	92.0	-	92.0
3"	5.0	-	-	-	30.0	-	30.0
4"	7.0	-	-	-	42.0	-	42.0
		2,500.0	50.5	156.0	803.5	130.0	3,640.0

## Table 9

### Historical Expenses and 2020 Adopted Budget for Sewer Utility

*City of Salida, CO*

Account Category	Account Description	2018 ACTUAL	2019 ESTIMATE	Test Year BUDGET
15 Administration & Elected Officials	51 Personnel	79,118	94,709	108,331
	52 Contracted Services	3,541	3,409	4,000
	53 Supplies & Materials	1,486	2,300	1,500
	54 Utilities	0	0	0
	55 Other Operating Costs	14,173	15,772	14,600
30 Public Works - General	51 Personnel	174,675	213,153	247,900
	52 Contracted Services	179,059	255,045	98,500
	53 Supplies & Materials	8,964	11,231	12,900
	54 Utilities	2,620	1,692	700
	55 Other Operating Costs	5,977	8,203	14,000
35 Wastewater Plant	51 Personnel	346,754	284,505	365,069
	52 Contracted Services	58,717	37,471	98,000
	53 Supplies & Materials	40,672	56,317	66,000
	54 Utilities	109,443	136,523	128,500
	55 Other Operating Costs	144,507	117,033	140,200
Total		1,169,707	1,237,362	1,300,200

## Table 10

### Recovery of Depreciation and ROI

*City of Salida, CO*

Return on Investment	
Inside Customers	
Assets <sup>1</sup>	\$27,247,090
Less: Accumulated Depreciation <sup>1</sup>	\$10,127,719
Estimated 2018 Net Investment Rate Base (NIRB)	\$17,119,371
Return on Investment (ROI) %	0.00%
ROI for test year	\$0
Depreciation Expense for test year	\$909,433
Total Capital Recovery	\$909,433
Outside Customers	
Assets	\$27,247,090
Less: Accumulated Depreciation	\$10,127,719
Estimated 2018 Net Investment Rate Base (NIRB)	\$17,119,371
Return on Investment (ROI) %	0.500%
ROI for test year	\$85,597
Depreciation Expense for test year	\$909,433
Total Capital Recovery	\$995,030

**Notes:**

1) Projected 2020

Table 11  
Allocation of Costs to Function  
City of Salida, CO

		Allocation Percentages					WWTF					Customer	
		Conv	Flow	BOD	TSS	Cnn	Test Year Budget	Conveyance System	Flow	BOD	TSS	Billing	Meter/Conn
<b>Operating &amp; Maintenance</b>													
<u>Acct Category</u>	<u>Acct Description</u>												
15 Administration & Elected Officials	51 Personnel	15%	20%	0%	0%	65%	\$108,331	\$16,250	\$21,666	\$0	\$0	\$0	\$70,415
	52 Contracted Services	15%	20%	0%	0%	65%	\$4,000	\$600	\$800	\$0	\$0	\$0	\$2,600
	53 Supplies & Materials	15%	20%	0%	0%	65%	\$1,500	\$225	\$300	\$0	\$0	\$0	\$975
	54 Utilities	15%	20%	0%	0%	65%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	55 Other Operating Costs	15%	20%	0%	0%	65%	\$14,600	\$2,190	\$2,920	\$0	\$0	\$0	\$9,490
30 Public Works - General	51 Personnel	30%	45%	5%	5%	15%	\$247,900	\$74,370	\$111,555	\$12,395	\$12,395	\$0	\$37,185
	52 Contracted Services	30%	45%	5%	5%	15%	\$98,500	\$29,550	\$44,325	\$4,925	\$4,925	\$0	\$14,775
	53 Supplies & Materials	30%	45%	5%	5%	15%	\$12,900	\$3,870	\$5,805	\$645	\$645	\$0	\$1,935
	54 Utilities	30%	45%	5%	5%	15%	\$700	\$210	\$315	\$35	\$35	\$0	\$105
	55 Other Operating Costs	30%	45%	5%	5%	15%	\$14,000	\$4,200	\$6,300	\$700	\$700	\$0	\$2,100
35 Wastewater Plant	51 Personnel	10%	20%	10%	10%	50%	\$365,069	\$36,507	\$73,014	\$36,507	\$36,507	\$0	\$182,535
	52 Contracted Services	10%	20%	10%	10%	50%	\$98,000	\$9,800	\$19,600	\$9,800	\$9,800	\$0	\$49,000
	53 Supplies & Materials	10%	20%	10%	10%	50%	\$66,000	\$6,600	\$13,200	\$6,600	\$6,600	\$0	\$33,000
	54 Utilities	10%	20%	10%	10%	50%	\$128,500	\$12,850	\$25,700	\$12,850	\$12,850	\$0	\$64,250
	55 Other Operating Costs	10%	20%	10%	10%	50%	\$140,200	\$14,020	\$28,040	\$14,020	\$14,020	\$0	\$70,100
<b>Total O &amp; M</b>		16%	27%	8%	8%	41%	\$1,300,200	\$211,242	\$353,540	\$98,477	\$98,477	\$0	\$538,465
<b>Transfers</b>													
N/A		16%	27%	8%	8%	41%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Capital Costs</b>													
Rate of Return (ROI)		10%	15%	15%	15%	45%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Depreciation		10%	15%	15%	15%	45%	\$909,433	\$90,943	\$136,415	\$136,415	\$136,415	\$0	\$409,245
<b>Total Capital Costs</b>		10%	15%	15%	15%	45%	\$909,433	\$90,943	\$136,415	\$136,415	\$136,415	\$0	\$409,245
<b>Subtotal Revenue Requirements</b>							\$2,209,633	\$302,185	\$489,955	\$234,892	\$234,892	\$0	\$947,710
<b>Other Income</b>													
Misc Service, Late Charges, & Other		16%	27%	8%	8%	41%	(\$43,000)	(\$6,986)	(\$11,692)	(\$3,257)	(\$3,257)	\$0	(\$17,808)
Investment Income		16%	27%	8%	8%	41%	(\$50,000)	(\$8,123)	(\$13,596)	(\$3,787)	(\$3,787)	\$0	(\$20,707)
Total Other Income		16%	27%	8%	8%	41%	(\$93,000)	(\$15,110)	(\$25,288)	(\$7,044)	(\$7,044)	\$0	(\$38,515)
<b>Total Net Revenue Requirements</b>							<b>\$2,116,633</b>	<b>\$287,075</b>	<b>\$464,667</b>	<b>\$227,848</b>	<b>\$227,848</b>	<b>\$0</b>	<b>\$909,195</b>
<b>Summary</b>													
<b>Allocation of Costs to Function and Classification for Inside Rates</b>													
							Test Year Budget	Conveyance System	Flow	BOD	TSS	Billing	Meter/Conn
O&M and Replacement		16%	27%	8%	8%	41%	\$1,300,200	\$211,242	\$353,540	\$98,477	\$98,477	\$0	\$538,465
Capital		10%	15%	15%	15%	45%	\$909,433	\$90,943	\$136,415	\$136,415	\$136,415	\$0	\$409,245
Other Revenues		16%	27%	8%	8%	41%	(\$93,000)	(\$15,110)	(\$25,288)	(\$7,044)	(\$7,044)	\$0	(\$38,515)
Total		14%	22%	11%	11%	43%	<b>2,116,633</b>	<b>287,075</b>	<b>464,667</b>	<b>227,848</b>	<b>227,848</b>	<b>0</b>	<b>909,195</b>
<b>Allocation of Costs to Function and Classification for Outside Rates</b>													
							Test Year Budget	Conveyance System	Flow	BOD	TSS	Billing	Meter/Conn
Total Allocation for Inside City Rates							\$2,116,633	\$287,075	\$464,667	\$227,848	\$227,848	\$0	\$909,195
Less: Debt % for Inside City							\$0	\$0	\$0	\$0	\$0	\$0	\$0
Plus: ROI for Computation of Outside Rates							\$85,597	\$8,560	\$12,840	\$12,840	\$12,840	\$0	\$38,519
Total		13%	22%	11%	11%	43%	<b>2,202,230</b>	<b>295,635</b>	<b>477,507</b>	<b>240,688</b>	<b>240,688</b>	<b>0</b>	<b>947,713</b>

**Legend**  
BOD = Biochemical Oxygen Demand  
TSS = Total Suspended Solids

## Table 12 Rate Computation Worksheet

City of Salida, CO

Calculation of Inside Customer Rates							
Fixed Charges (Annual)							
Charge Type		Costs	Billable Units		Rate		
Meter/Connection Charge		\$909,194.61	3,640		\$249.78		
Meter Size	Equiv Ratio	Meter/Connection Charge	Customer Charge	Total Fixed Charge			
ADU	0.50	\$124.89	\$0.00	\$124.89			
Res. Service	1.00	\$249.78	\$0.00	\$249.78			
5/8" & 3/4"	1.10	\$274.76	\$0.00	\$274.76			
1"	2.00	\$499.56	\$0.00	\$499.56			
1 1/2"	3.00	\$749.34	\$0.00	\$749.34			
2"	4.00	\$999.12	\$0.00	\$999.12			
3"	5.00	\$1,248.90	\$0.00	\$1,248.90			
4"	7.00	\$1,748.46	\$0.00	\$1,748.46			
Volumetric Charges							
Charge Type	Cost	Total		Commercial		Residential	
		Billable Units (1,000 Gal or lbs)	Rate/Unit	Billable Units (1,000 Gal or lbs)	Rate/Unit	Billable Units (1,000 Gal or lbs)	Rate/Unit
Flow Charge per 1000 Gal	\$464,667	192,160	\$2.42		\$2.42		\$2.42
Conveyance Charge per 1000 Gal	\$287,075	192,160	\$1.49		\$1.49		\$1.49
BOD Charge per lb.	\$227,848	440,652	\$0.52	305,244	\$0.52	135,408	\$0.52
TSS Charge per lb.	\$227,848	632,806	\$0.36	497,398	\$0.36	135,408	\$0.36
BOD Charge per 1000 Gal			\$0.97		\$1.32		\$0.97
TSS Charge per 1000 Gal			\$0.68		\$1.49		\$0.68
Total Volumetric Rate per 1000 Gal			\$5.56		\$6.72		\$5.56

## Table 13

### Rate Summary (Monthly Charges)

*City of Salida, CO*

	Current	COS	URS Proposed	Proposed Phased <sup>1</sup>
<b>Domestic Sewer Customers</b>				
<u>Meter Size</u>				
ADU	\$9.91	\$10.41	\$10.41	4.95%
Res. Service	\$19.81	\$20.82	\$20.82	4.95%
5/8" & 3/4"	\$20.52	\$22.90	\$22.90	4.95%
1"	\$28.64	\$41.63	\$41.63	4.95%
1 1/2"	\$42.75	\$62.45	\$62.45	4.95%
2"	\$64.12	\$83.26	\$83.26	4.95%
3"	\$81.22	\$104.08	\$104.08	4.95%
4"	\$100.46	\$145.71	\$145.71	4.95%
Res. Volumetric Rate per 1000 Gal	\$1.31	\$5.56	\$5.40	4.95%
Com. Volumetric Rate per 1000 Gal	\$2.42	\$6.72	\$6.55	4.95%
Unmetered ("Sewer Only")	\$34.22	\$81.95	\$80.22	4.95%

**Notes:**

1) Represents the \$ change to each rate category for annual phased increase for 10-year phased in increase.

## Table 14

### Revenue Check (Based on COS)

*City of Salida, CO*

		Units	Rate	Annual Total
<b>Fixed Charge</b>				
	<u>Meter Size</u>			
	ADU	101	\$10.41	\$12,614
	Res. Service	2,786	\$20.82	\$695,887
	5/8" & 3/4"	315	\$22.90	\$86,549
	1"	100	\$41.63	\$49,956
	1 1/2"	31	\$62.45	\$23,230
	2"	23	\$83.26	\$22,980
	3"	6	\$104.08	\$7,493
	4"	6	\$145.71	\$10,491
	Unmetered ("Sewer Only")	130	\$81.95	\$127,847
Subtotal		3,368		\$1,037,047
<b>Volumetric Charges</b>				
Residential	Flow (000 gal)	55,000	\$5.56	\$305,690
Commercial	Flow (000 gal)	120,000	\$6.72	\$806,373
Subtotal		175,000		\$1,112,063
<b>Total Revenues</b>				<b>\$2,149,110</b>
<b>Revenue Requirements</b>				<b>\$2,116,633</b>
<b>Difference</b>				<b>\$32,477</b>

**Notes:**

1) Difference due to rounding

**Table 15**  
**Revenue Summary (Proposed Rates & Phased-in)**

*City of Salida, CO*

		Current		URS Result		10-Year Phased-In	
	Units	Rate	Annual Total	Rate	Annual Total	Annual Rate Adjustment	Annual Total <sup>1</sup>
<b>Fixed Charge</b>							
<u>Meter Size</u>							
ADU	101	\$9.91	\$12,011	\$10.41	\$12,614	4.95%	
Res. Service	2,786	\$19.81	\$662,288	\$20.82	\$695,887	4.95%	
5/8" & 3/4"	315	\$20.52	\$77,566	\$22.90	\$86,549	4.95%	
1"	100	\$28.64	\$34,368	\$41.63	\$49,956	4.95%	
1 1/2"	31	\$42.75	\$15,903	\$62.45	\$23,230	4.95%	
2"	23	\$64.12	\$17,697	\$83.26	\$22,980	4.95%	
3"	6	\$81.22	\$5,848	\$104.08	\$7,493	4.95%	
4"	6	\$100.46	\$7,233	\$145.71	\$10,491	4.95%	
Unmetered ("Sewer Only")	130	\$34.22	\$53,383	\$80.22	\$125,135	4.95%	
Subtotal	3,368		\$886,297		\$1,034,335		
<b>Volumetric Charges</b>							
Residential	Flow (000 gal)						
	55,000	\$1.31	\$72,050	\$5.40	\$297,000	4.95%	
Commercial	Flow (000 gal)						
	120,000	\$2.42	\$290,400	\$6.55	\$786,000	4.95%	
Subtotal	175,000		\$362,450		\$1,083,000		
<b>Total Revenues</b>			<b>\$1,248,747</b>	<b>\$2,117,335</b>		<b>\$2,467,746</b>	
<b>Revenue Requirements</b>			<b>\$2,116,633</b>	<b>\$2,116,633</b>			
<b>Difference</b>			<b>(\$867,887)</b>	<b>\$702</b>			

**Notes:**

1) Includes 2% annual growth assumption from Long-Range Cash Flow Analysis



## Table 16

### Test Year Cash Flow Analysis

*City of Salida, CO*

	Test Year
<b>Cash Sources</b>	
Revenues from User Rates <sup>(1)</sup>	\$2,117,335
Other Income <sup>(2)</sup>	\$43,000
Investment Income on Unrestricted Cash	\$50,000
Development Fees	\$450,000
Total Cash Sources	\$2,660,335
<b>Cash Uses</b>	
O&M	\$1,300,200
Net Before Debt Service	\$1,360,135
<b>Debt Service</b>	
General Obligation Debt Service P&I	\$0
Revenue Bond Debt Service P&I	\$480,405
Total Debt Service	\$480,405
Cash Funded Capital	\$605,000
Transfer in/(out)	\$0
Net Cash Flow	\$274,730
<b>Total Unrestricted Cash Balance</b>	
Beginning Year Est. Balance	\$1,863,268
Net Additions (Subtractions)	\$274,730
End of Year Unrestricted Cash Balance	\$2,137,998

**Notes:**

- 1) Full year of revenues from proposed user rates
- 2) Miscellaneous revenue and late fees.

**Table 17****Comparison of Existing and Proposed (After all phases) Bills***City of Salida, CO*

Customer	Usage Level	Meter Size	Usage 1,000 Gal	Current Bill	Monthly	Dollar Change	Percent Change
					Proposed Bill		
Residential	Low User	Res. Service	3.00	\$23.74	\$37.02	\$13.28	55.9%
Residential	Avg. User	Res. Service	4.00	\$25.05	\$42.42	\$17.37	69.3%
Residential	High User	Res. Service	5.00	\$26.36	\$47.82	\$21.46	81.4%
Commercial	Low User	5/8" & 3/4"	7.50	\$30.35	\$63.40	\$33.05	108.9%
Commercial	Avg. User	5/8" & 3/4"	10.00	\$33.62	\$76.90	\$43.28	128.7%
Commercial	High User	5/8" & 3/4"	12.50	\$36.90	\$90.40	\$53.50	145.0%
Res with ADU	Low User	Res. Service	8.25	\$40.53	\$75.77	\$35.25	87.0%
Res with ADU	Avg. User	Res. Service	11.00	\$44.13	\$90.62	\$46.49	105.4%
Res with ADU	High User	Res. Service	13.75	\$47.73	\$105.47	\$57.74	121.0%
Sewer Only	N/A	N/A		\$34.22	\$80.22	\$46.00	134.4%

**Notes:**

- 1) Meter sizes chosen based on highest number of users for each class
- 2) Average user is defined as the total estimated test year flow for the class divided by the projected number of users in the class.



## 2020 Sewer Rate Study

### Section 3 — Long-Range Cash Flow Analysis

City of Salida, CO

# Table 18 Sewer Utility Capital Improvement Plan

City of Salida, CO

Projects	Funding	2020	2021	2022	2023	2024	Totals
Infrastructure Upgrades and Replacements	Cash	350,000	350,000	350,000	350,000	350,000	1,750,000
Vehicles	Cash		225,000	80,000	40,000		345,000
Equipment Replacements	Cash	15,000	17,000	17,000	18,000	18,000	85,000
Sewer Reconstruction (Street Construction)	Cash	75,000	75,000	75,000	75,000	75,000	375,000
Office Building Improvement	Cash	15,000					15,000
Wastewater Facility- Routine Improvements	Cash	30,000					30,000
Wastewater Treatment Facility Upgrade	Cash	10,000	10,000	10,000	10,000	10,000	50,000
Vehicles	Cash	45,000		40,000			85,000
Equipment Replacement	Cash	50,000	50,000	50,000	50,000	50,000	250,000
Machinery and Equipment	Cash	15,000	15,000	15,000	15,000	15,000	75,000
Phosphorous Removal Improvements	Cash		260,000		300,000		560,000
Poncha Springs Interceptor	Revenue Debt						0
Actual CIP Costs		605,000	1,002,000	637,000	858,000	518,000	3,620,000

Sources of Funding							
G.O. Debt		0	0	0	0	0	0
Revenue Debt		0	0	0	0	0	0
Grants/Aids		0	0	0	0	0	0
Special Assessment		0	0	0	0	0	0
User Fees		0	0	0	0	0	0
Tax Levy		0	0	0	0	0	0
Equipment Replacement Fund		0	0	0	0	0	0
Cash		605,000	1,002,000	637,000	858,000	518,000	3,620,000
Total		605,000	1,002,000	637,000	858,000	518,000	3,620,000

Notes:

% Allocation		\$ Allocation	
Existing Sys.	Growth	Existing Sys.	Growth
100%	0%	\$ 1,750,000	\$ -
100%	0%	\$ 345,000	\$ -
100%	0%	\$ 85,000	\$ -
100%	0%	\$ 375,000	\$ -
100%	0%	\$ 15,000	\$ -
100%	0%	\$ 30,000	\$ -
100%	0%	\$ 50,000	\$ -
100%	0%	\$ 85,000	\$ -
100%	0%	\$ 250,000	\$ -
100%	0%	\$ 75,000	\$ -
100%	0%	\$ 560,000	\$ -
100%	0%	\$ -	\$ -
100%	0%	\$ 3,620,000	\$ -

**Table 19**  
**Sewer Utility Cash Flow Analysis - Projected 2020-2030**

City of Salida, CO

	Actual 2019	Est. 2020	2021	2022	2023	2024	Projected					
							2025	2026	2027	2028	2029	2030
<b>Revenues</b>												
Total Revenues from User Rates <sup>1</sup>	\$1,378,100	\$1,427,000	\$1,527,610	\$1,635,314	\$1,750,612	\$1,874,038	\$2,006,167	\$2,147,611	\$2,299,028	\$2,461,120	\$2,634,641	\$2,820,396
Percent Increase to User Rates		0.00%	4.95%	4.95%	4.95%	4.95%	4.95%	4.95%	4.95%	4.95%	4.95%	4.95%
Cumulative Percent Rate Increase		0.00%	4.95%	10.15%	15.60%	21.33%	27.33%	33.64%	40.26%	47.20%	54.49%	62.14%
Dollar Amount Increase to Revenues		\$48,900	\$100,610	\$107,704	\$115,297	\$123,426	\$132,129	\$141,444	\$151,417	\$162,092	\$173,521	\$185,755
<b>Other Revenues</b>												
Interest Income	\$75,547	\$50,000	\$50,125	\$50,250	\$50,376	\$50,502	\$50,628	\$50,755	\$50,882	\$51,009	\$51,136	\$51,264
Other Income	\$162	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Other Revenues	\$75,709	\$50,000	\$50,125	\$50,250	\$50,376	\$50,502	\$50,628	\$50,755	\$50,882	\$51,009	\$51,136	\$51,264
<b>Total Revenues</b>	<b>\$1,453,809</b>	<b>\$1,477,000</b>	<b>\$1,577,735</b>	<b>\$1,685,564</b>	<b>\$1,800,988</b>	<b>\$1,924,540</b>	<b>\$2,056,795</b>	<b>\$2,198,366</b>	<b>\$2,349,909</b>	<b>\$2,512,129</b>	<b>\$2,685,777</b>	<b>\$2,871,660</b>
<b>Expenses</b>												
Operating and Maintenance <sup>2</sup>	\$1,242,771	\$1,300,200	\$1,339,206	\$1,379,382	\$1,420,764	\$1,463,387	\$1,507,288	\$1,552,507	\$1,599,082	\$1,647,054	\$1,696,466	\$1,747,360
PILOT Payment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Before Debt Service and Capital Expenditures	\$211,038	\$176,800	\$238,529	\$306,182	\$380,224	\$461,153	\$549,507	\$645,859	\$750,827	\$865,075	\$989,311	\$1,124,300
<b>Debt Service</b>												
Existing Debt P&I	\$479,178	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405
New (2020-2029) Debt Service P&I	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Debt Service	\$479,178	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405	\$480,405
Transfer In (Out) <sup>3</sup>	\$657,735	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
Capital Improvements <sup>4</sup>	\$535,644	\$605,000	\$1,002,000	\$637,000	\$858,000	\$518,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Bonds Issued/Grants/Aid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Net Annual Cash Flow</b>	<b>(\$146,049)</b>	<b>(\$458,605)</b>	<b>(\$793,876)</b>	<b>(\$361,223)</b>	<b>(\$508,181)</b>	<b>(\$87,252)</b>	<b>\$19,102</b>	<b>\$115,454</b>	<b>\$220,422</b>	<b>\$334,670</b>	<b>\$458,906</b>	<b>\$593,895</b>
<b>Restricted and Unrestricted Cash Balance:</b>												
Balance at first of year		\$3,308,556	\$2,849,951	\$2,056,075	\$1,694,853	\$1,186,672	\$1,099,420	\$1,118,522	\$1,233,976	\$1,454,398	\$1,789,068	\$2,247,974
Net Annual Cash Flow Addition/(subtraction)		(\$458,605)	(\$793,876)	(\$361,223)	(\$508,181)	(\$87,252)	\$19,102	\$115,454	\$220,422	\$334,670	\$458,906	\$593,895
Balance at end of year	\$3,308,556	\$2,849,951	\$2,056,075	\$1,694,853	\$1,186,672	\$1,099,420	\$1,118,522	\$1,233,976	\$1,454,398	\$1,789,068	\$2,247,974	\$2,841,869

**Notes:**

- 1) 2% revenue inflation per furnished customer growth assumption.
- 2) 3% annual inflation from 2020 Budget per historical performance.
- 3) Assumes no additional SDF per discussion with Staff.
- 4) Cash funded capital shown after 2024 based on allowable to remain at benchmark cash balances

**Legend:**

- Increase depicted to maintain with assumed O&M inflation
- Increase needed above inflationary adjustment
- End of Furnished CIP

## Table 20

### Sewer Utility Statement of Projected Revenue Bond Coverage

City of Salida, CO

Year	Total Operating Revenues	Dev. Fees	Less:		Existing Rev Debt	Future Rev Debt (2020-		Total Sewer Debt Service	Coverage	Debt Service Capacity @ 1.25x
			Total O&M Expense	Amount Available for Debt Service	Total	Total				
2020	1,477,000	450,000	(1,300,200)	626,800	480,405	-		480,405	1.30	\$21,035
2021	1,577,735	450,000	(1,339,206)	688,529	480,405	-		480,405	1.43	\$70,418
2022	1,685,564	450,000	(1,379,382)	756,182	480,405	-		480,405	1.57	\$124,541
2023	1,800,988	450,000	(1,420,764)	830,224	480,405	-		480,405	1.73	\$183,774
2024	1,924,540	450,000	(1,463,387)	911,153	480,405	-		480,405	1.90	\$248,518
2025	2,056,795	450,000	(1,507,288)	999,507	480,405	-		480,405	2.08	\$319,200
2026	2,198,366	450,000	(1,552,507)	1,095,859	480,405	-		480,405	2.28	\$396,282
2027	2,349,909	450,000	(1,599,082)	1,200,827	480,405	-		480,405	2.50	\$480,257
2028	2,512,129	450,000	(1,647,054)	1,315,075	480,405	-		480,405	2.74	\$571,655
2029	2,685,777	450,000	(1,696,466)	1,439,311	480,405	-		480,405	3.00	\$671,044
2030	2,871,660	450,000	(1,747,360)	1,574,300	480,405	-		480,405	3.28	\$779,035

**Notes:**

1) Revenue Coverage determined from [Year] Revenue Bonds/SDWFL/USDA Loan

Table 21  
Sewer Utility Financial Benchmarking Analysis 2020 - 2030

City of Salida, CO

	Est.	Projected									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Target minimum cash balance</b>											
Target minimum working capital - Ehlers <sup>1</sup>	1,615,674	1,646,996	1,675,057	1,708,717	1,739,488	1,771,378	1,803,947	1,837,214	1,871,202	1,905,930	1,380,295
Actual Days Cash Available - Moody's <sup>2</sup>	523	291	127	(8)	(29)	(24)	4	54	127	222	339
Target minimum working capital - S&P <sup>3</sup>	523	291	127	(8)	(29)	(24)	4	54	127	222	339
<b>Actual working capital-cash balance</b>											
Over (Under) Ehlers target	2,849,951	2,056,075	1,694,853	1,186,672	1,099,420	1,118,522	1,233,976	1,454,398	1,789,068	2,247,974	2,841,869
Over (Under) Moody's target (150 days)	1,234,277	409,080	19,796	(522,045)	(640,068)	(652,856)	(569,971)	(382,816)	(82,134)	342,044	1,461,574
Over (Under) S&P target (150 days)	373	141	(23)	(158)	(179)	(174)	(146)	(96)	(23)	72	189
Over (Under) S&P target (150 days)	373	141	(23)	(158)	(179)	(174)	(146)	(96)	(23)	72	189

**Notes:**  
1) Target capital equals 6 mos of next year's operating expenses, including depreciation, plus 100% of debt.  
2) Moody's Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation  
3) S&P Formula = [(Unrestricted Cash + Liquid Investments) \* 365 days] ÷ Total O&M Expenses less Depreciation; include designated reserve funds: ERFs, RSFs, etc

<b>Rate of Return</b>											
Average Utility Plant in Service	27,247,090	28,050,590	28,870,090	29,617,590	30,305,590	30,814,590	31,314,590	31,814,590	32,314,590	32,814,590	33,314,590
Less: Utility Plant Accumulated Depreciation	10,127,719	11,059,051	12,012,851	12,981,390	13,974,627	14,985,504	16,014,944	17,062,946	18,129,510	19,214,637	20,318,327
Average Net Investment Rate Base (NIRB)	17,119,371	16,991,539	16,857,239	16,636,200	16,330,963	15,829,086	15,299,646	14,751,644	14,185,080	13,599,953	12,996,263
Net Operating Income	(782,633)	(742,928)	(697,867)	(638,692)	(582,585)	(511,999)	(434,335)	(348,056)	(252,499)	(146,952)	(30,654)
ROR	-4.57%	-4.37%	-4.14%	-3.84%	-3.57%	-3.23%	-2.84%	-2.36%	-1.78%	-1.08%	-0.24%
Typical											

<b>Cost Recovery</b>											
Operating Revenues	1,427,000	1,527,610	1,635,314	1,750,612	1,874,038	2,006,167	2,147,611	2,299,028	2,461,120	2,634,641	2,820,396
Operating Expenses incl. Depr & Amortization	2,209,633	2,270,538	2,333,181	2,389,303	2,456,623	2,518,165	2,581,946	2,647,084	2,713,619	2,781,593	2,851,050
Cost Recovery	0.65	0.67	0.70	0.73	0.76	0.80	0.83	0.87	0.91	0.95	0.99
Cost Recovery w/o Depr.	1.10	1.14	1.19	1.23	1.28	1.33	1.38	1.44	1.49	1.55	1.61

**Notes:**  
This operating ratio indicates whether operating revenues (mostly charges to customers) were sufficient to cover operations and capital (in the form of depreciation) for the water and/or wastewater utility in the fiscal year. A ratio of less than 1 could be a sign of financial concern. In general, this ratio should be higher than 1 to accommodate future capital investments.

<b>Leverage</b>											
Total Long-Term Debt	10,446,944	10,226,335	10,000,177	9,768,329	9,530,648	9,286,989	9,037,200	8,781,127	8,518,612	8,249,494	7,973,605
Total Net Assets	27,247,090	28,050,590	28,870,090	29,617,590	30,305,590	30,814,590	31,314,590	31,814,590	32,314,590	32,814,590	33,314,590
Debt-to Equity Ratio	0.38	0.36	0.35	0.33	0.31	0.30	0.29	0.28	0.26	0.25	0.24

**Notes:**  
This indicator measures the existing level of leveraging of assets, and is used by funders and bond rating agencies to evaluate the risk of providing additional loans to the utility. The ratio indicates the amount of long-term debt that exists for every \$1 of assets (fund equity). A utility with a ratio greater than 1.0 has more long-term debt than equity in the system's assets. There are no natural benchmarks for this indicator, and funders and bond rating agencies will assess this ratio in various ways. In general, the higher this ratio, the more likely the utility will be considered to be over-leveraged and the more difficult it will be for the utility to obtain additional loans. For this ratio, Net Assets are equal to the Net Investment Rate Base of the utility.

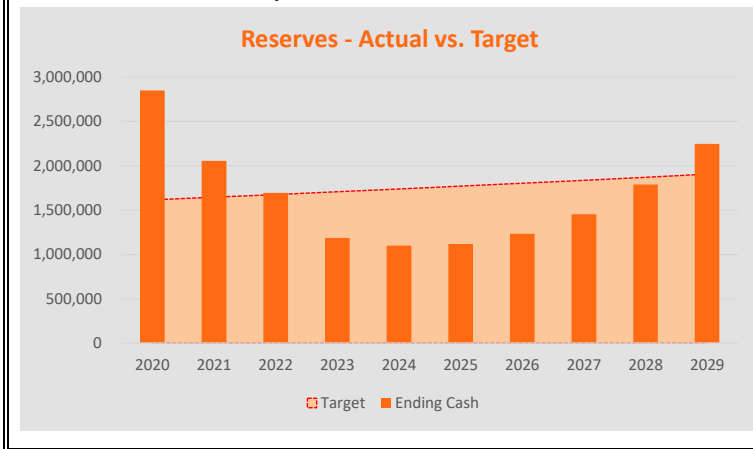
<b>Condition of Assets:</b>											
Accumulated Depreciation Expense	10,127,719	11,059,051	12,012,851	12,981,390	13,974,627	14,985,504	16,014,944	17,062,946	18,129,510	19,214,637	20,318,327
Average Total Plant in Service	27,247,090	28,050,590	28,870,090	29,617,590	30,305,590	30,814,590	31,314,590	31,814,590	32,314,590	32,814,590	33,314,590
Asset Depreciation	27.10%	28.28%	29.38%	30.47%	31.56%	32.72%	33.84%	34.91%	35.94%	36.93%	37.88%

**Notes:**  
This indicator of infrastructure condition estimates the portion of the average expected life of the utility's physical assets that has already passed. As this ratio approaches 100%, the capital assets become fully depreciated, and infrastructure needs replacement or rehabilitation. The accuracy of this indicator relies heavily on the accuracy of the depreciation schedule, and historic pricing likely distorts this indicator (newer utilities may be slightly disadvantaged as a result).

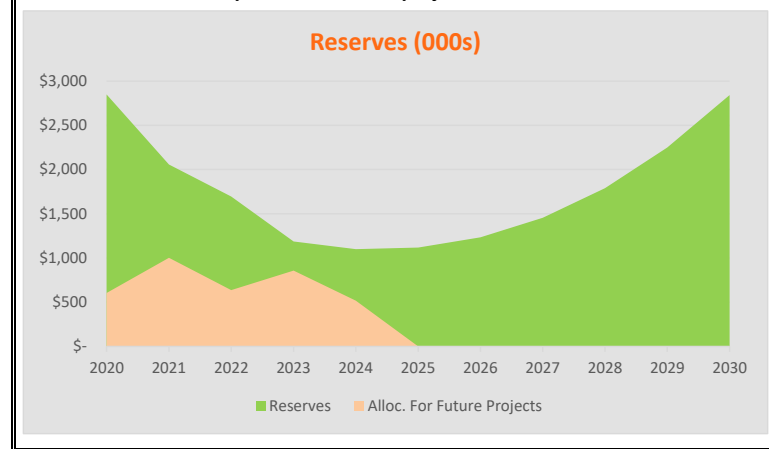
## Table 22 Sewer Utility Long-Range Planning Analysis

City of Salida, CO

Are rates set to maintain adequate reserves?



How much reserves are planned for future projects?



Are rates set to pay for financial obligations?

