

Town of Telluride, CO

2018 WASTEWATER RATE STUDY

FINAL REPORT
October 2018

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Section I. INTRODUCTION

The Town of Telluride (Town) engaged FCS GROUP to complete a comprehensive rate study for its wastewater utility following the recent completion of the Town’s Wastewater Treatment Master Plan (WWTMP). This study intended to answer the following key questions:

- How should the Town pay for the capital projects identified in the WWTMP? This analysis involved developing a financial forecast and evaluating several capital funding scenarios, each of which would have its own implications for the Town’s wastewater rates.
- How should the Town recover the required amount of revenue from its customers? This analysis included a review of the cost of serving various groups of customers, both inside and outside of the Town’s corporate limits.

The Town’s wastewater utility is an enterprise, which the Colorado State Constitution defines as a “government-owned business authorized to issue its own revenue bonds and receiving under 10% of annual revenue in grants from all Colorado state and local governments combined.” Section 24-77-102 of the Colorado Revised Statutes (CRS) defines “grants” for this purpose as direct cash subsidies or other direct contributions of money from Colorado state/local governments that do not have to be repaid. Governmental entities that do not meet these criteria are subject to limitations in revenue growth, requirements for voter approval, and other rules imposed by the Colorado Taxpayer Bill of Rights (TABOR). To sustain the wastewater utility’s status as a self-supporting enterprise, this analysis included the development of a multi-year financial plan that adequately funds:

- Capital infrastructure costs
- System operation and maintenance
- Existing and future debt obligations
- Cash flow needs
- Fiscal policy achievement

The methodology, key factors, conclusions and recommendations for each of the key task areas of the study are summarized in this report. The detailed rate model is attached as Appendix A.

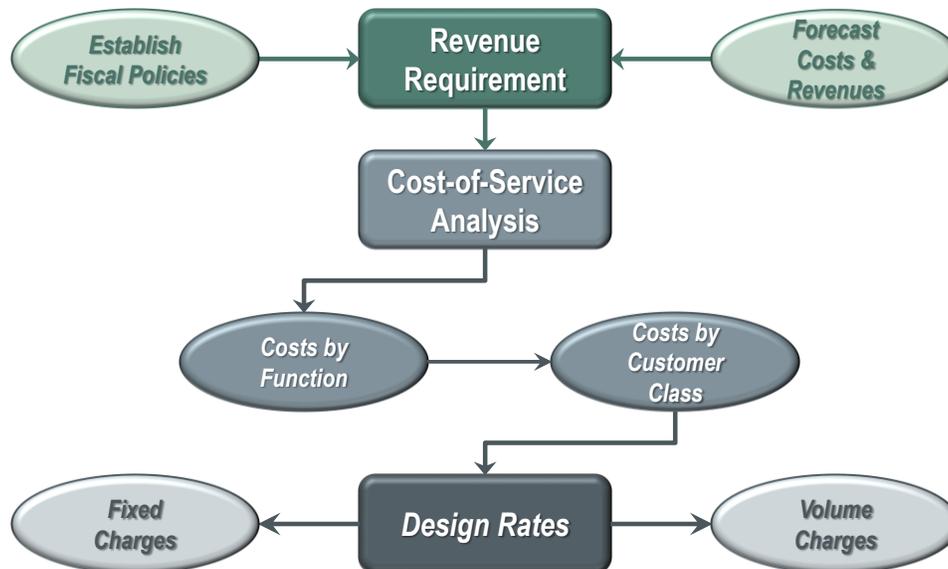
Disclaimer: FCS GROUP is not a Municipal Advisor as defined by the US Securities and Exchange Commission (“SEC”) and the Municipal Securities Rulemaking Board (“MSRB”). This report and related work products are intended for the Town’s use for the purposes described in Exhibit A of the Contract Agreement for the following project: **Financial Analysis and Rate Study to Facilitate Implementation of the Telluride Regional Wastewater Treatment Plant Master Plan**. No other users or uses are intended or implied – this report and related work products do not constitute Municipal Advice within the legal definitions represented by the SEC and the MSRB.

The forecasts documented in this report were developed using published information and other sources that FCS GROUP considers appropriate. However, FCS GROUP cannot assume responsibility for the accuracy of such material. Moreover, forecasts are subject to many uncertainties as to the future; therefore, FCS GROUP cannot represent that the projected financial statements will be representative of the results that actually occur.

Section II. RATE STUDY METHODOLOGY

The methods used to establish rates are based on principles that are generally accepted and widely followed throughout the industry. **Exhibit 2.1** illustrates the methodology used in this study:

Exhibit 2.1: Overview of the Rate Study Process



The first step in the process is to determine the revenue requirement, or the total amount of revenue needed to fund the wastewater utility’s needs on an annual basis. The revenue requirement analysis involves projecting various costs and revenues, overlaying a set of fiscal policies intended to promote the long-term financial viability of the Town’s wastewater utility. Recognizing that the Town of Mountain Village is a 35% stakeholder at the Telluride Regional Wastewater Treatment Plant (TRWWTP) and a member of the Task Force assembled to advise the study process, this analysis also evaluates the impacts of the forecasted costs and funding strategies to Mountain Village.

Once the annual revenue requirement has been determined, the next step is to allocate the revenue requirement to customer classes based on their demands and service characteristics. This allocation also provides a basis for evaluating the equity of the “outside-Town” rate multiplier that the Town applies to residential and commercial customers in the Aldasoro, Lawson Hill, and Hillside areas, as well as other customers outside of the Town’s corporate boundaries.

The final step in the analysis is to develop rates that generate the amount of revenue allocated to each customer class and promote key policy objectives such as equity, conservation, affordability, and revenue stability. This analysis used the Town’s existing rate structure as the basis for the recommended rates, considering class-specific and area-specific adjustments to implement the results of the cost-of-service analysis.

Appendix A includes the spreadsheet model developed to complete the analyses described above.

Section III. REVENUE REQUIREMENT

The revenue requirement analysis forms the basis for a long-range financial plan and multi-year rate management strategy for the wastewater utility. It enables the Town to set rates that recover system costs including capital investment, operations, maintenance, administration, debt repayment, and fiscal policy attainment. Linking rate levels to a financial plan such as this helps to enable not only sound financial performance for the Town's wastewater utility, but also establishes a clear and reasonable relationship between the charges that the Town imposes on its wastewater customers and the costs it incurs to provide service.

A revenue requirement analysis includes the following core elements to form a complete portrayal of the utility's financial obligations.

- **Fiscal Policy Analysis.** Identifies formal and informal fiscal policies of the Town to promote long-term fiscal health. Such policies include reserve levels, system reinvestment funding, and debt service coverage.
- **Capital Funding Plan.** Defines a strategy for funding the Town's wastewater capital improvement program, considering available resources from rate revenues, debt financing, and any special resources that may be readily available (e.g., grants, outside contributions).
- **Operating Forecast.** Projects future annual costs and revenues associated with the operation, maintenance, and administration of the system.
- **Sufficiency Testing.** Evaluates the sufficiency of revenues in meeting all financial obligations, including any coverage requirements associated with long-term debt.
- **Strategy Development.** Designs a forward-looking strategy for adjusting rates to fund the utility's financial obligations on an annual basis over the projection period.

The ensuing sections discuss these elements in further detail.

A. FISCAL POLICIES

The key policies that form the framework of the financial plan are discussed below.

1. Utility Reserves

Reserves are a key component of any utility financial strategy, as they provide the ability to manage variations in costs and revenues that could otherwise have an adverse impact on ratepayers. For the purpose of this analysis, resources are separated into the following funds:

- **Operating Fund:** This fund provides an unrestricted fund balance to accommodate short-term cycles of cash flow. It intends to address variations in revenues and expenses, whether

anticipated (e.g. billing/receipt cycles, payroll cycles) or unanticipated (e.g. weather, economic conditions). This analysis assumes the Town maintains a minimum balance equal to 90 days of operating expenses (excluding capital-related expenses that can vary widely from year to year) in this fund. Based on the Town’s 2018 Budget, this target balance would be calculated as follows:

Budgeted 2018 Expenses	\$3,850,570
Less: Capital-Related Expenditures	
Treatment Facility Improvements (52-50-750)	(2,125,000)
Nutrient Construction/Engineer (52-50-751)	(50,000)
Stream Bank Stabilization (52-55-710)	(20,000)
Sewer System Improvements (52-55-750)	(167,370)
Net 2018 Operating Expenses	\$1,488,200
Target 2018 Operating Fund Balance (90/365 = 24.7% of Total)	\$366,953

Recognizing the utility’s current cash balances and limited (if any) opportunity to implement additional rate increases in 2018, this target is enforced for the purposes of the financial modeling beginning in 2019.

- **Capital Fund:** This fund provides a source of cash for unanticipated capital expenditures or capital project overruns. In the context of the financial analysis, it also enforces an appropriate segregation of resources restricted (or otherwise designated) for capital purposes. This analysis assumes a minimum balance equal to 1% of the cost of system assets, which would be calculated as follows:

Original Cost of Wastewater Fixed Assets as of 12/31/17	\$11,467,849
Plus: Projected 2018 Asset Additions	958,000
Net 2018 Operating Expenses	\$12,425,849
Target 2018 Capital Fund Balance (1% of Total)	\$124,258

- **Debt Reserve:** Bond covenants often establish reserve requirements as a means of protecting bondholders against the risk of nonpayment. The Town’s wastewater utility does not currently have any outstanding debt requiring such a reserve. For the projected debt contained in our analysis of the capital funding alternatives, we assume a reserve requirement equal to one year’s debt service payment.

As noted above, this analysis tracks the utility’s resources in terms of separate operating and capital reserves. The analytical model segregates the revenues that go into each reserve (including related interest earnings), ensuring that those revenues are used for appropriate purposes. In particular, tap fees, debt proceeds, and other funds set aside for capital investment are kept separate from resources used to fund utility operation and maintenance.

This analysis also targets an aggregate balance equal to 150 days of operating expenses, excluding any applicable bond reserves. This policy recognizes the preferences of the bond rating agencies (e.g. Standard & Poor’s, Moody’s), given the potential for debt issuance as a means of funding the TRWWTP capital plan.

2. Capital Replacement and Improvement

Capital replacement and improvement funding promotes system integrity by ensuring adequate capital to fund the replacement of aging system facilities. Related policies involve generating cash for capital investment through rates, above current operating costs and debt service – this provides a source of cash funding for the near-term capital plan, accumulating funds for future spending during periods of low capital investment. When choosing a benchmark or a target amount for annual funding, it is worth noting that a higher target will have a greater upfront impact on existing ratepayers but will reduce future debt issuance and result in lower costs in the long-term. Utilities that adopt formal funding policies most often use reported depreciation expense as a readily available benchmark for annual funding levels. Per the Town’s 2017 Financial Statement, the wastewater utility’s reported 2017 depreciation expense was \$334,648 – this expense (and related funding benchmark) will increase over time as capital projects are completed and booked as assets.

3. Financial Performance Standards

The revenue requirement analysis uses a pair of sufficiency tests to establish the amount of revenue in any given year to meet the utility’s financial obligations on an annual basis.

- **Cash Flow Test:** This test defines “sufficient revenue” as the amount needed to fund all known cash requirements including O&M expenses, debt service payments, system reinvestment funding (and other rate-funded capital outlays), and reserve funding.
- **Coverage Test:** Intended to ensure compliance with the Town’s bond covenants, satisfying this test requires that “net revenue” (generally defined as system revenue net of operating expenses) is greater than or equal to a specified multiple of annual parity debt service. As the Town is not currently subject to any existing coverage requirements, this analysis assumes a minimum coverage ratio of 1.50 times annual debt service for planning purposes.

The annual revenue requirement can be defined as the amount needed to satisfy both of these tests. The financial modeling may show cash flow deficits in some years, but we have assumed the Town must meet any applicable coverage standards in each year of the forecast.

B. CAPITAL FUNDING PLAN

The TRWWTP 2018 – 2023 Capital Improvement Plan (CIP) includes \$16.9 million in project costs (in 2018 dollars). Adjusting for inflation at an assumed rate of 3.5% per year, the total projected 2018 – 2023 CIP expenditure is \$18.9 million. **Exhibit 3.1** lists the annual CIP expenditures for 2018 through 2023, the focus of this study. Between 2024 and 2047, the Town identified an additional \$58.2 million in improvements.

Exhibit 3.1: Wastewater Capital Improvement Program (\$000s)

Project Description	2018	2019	2020	2021	2022	2023	Next 25 Years
Biosolids							
Clean B Pilot Lease	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Biosolids Compost – 3XM	65	-	-	-	-	-	-
Dewatering Design	175	-	-	-	-	-	-
Dewatering Construction	-	1,750	-	-	-	-	-
Aerobic Digester Improvement Des.	-	-	100	-	-	-	-
Aerobic Digester Improvement Const.	-	-	-	150	750	-	-
Odor Control Design & Construction	160	100	200	350	800	-	-
ATAD Design/Construction	-	-	-	-	-	1,800	18,000
Liquid Stream							
Supplemental O ₂ Pilot	110	-	-	-	-	-	-
Electric Supply Line Analysis/Upgrade	-	-	100	300	-	-	-
Existing Headworks Rehabilitation	150	150	-	-	-	-	-
Future Headworks Design & Const.	-	-	-	-	250	1,000	-
Primary Clarifier & Pump Station Des.	-	100	570	-	-	-	-
Primary Clarifier & PS Const.	-	-	-	2,300	4,400	-	-
Septage Holding Tank Design & Const.	-	-	-	-	-	250	-
Ox-Ditch Aeration Imp. Des. & Const.	-	-	-	-	-	-	2,760
UV and Filters Design & Const.	-	-	-	-	-	-	7,750
MBR Design	-	-	-	-	-	-	2,500
MBR Construction	-	-	-	-	-	-	25,000
Administrative Tasks	270	100	100	100	100	100	2,200
Total (2018 Dollars)	\$ 958	\$ 2,200	\$ 1,070	\$ 3,200	\$ 6,300	\$ 3,150	\$ 58,210
Plus: Adjustment for Inflation	-	77	76	348	929	591	35,987
Total Projected Expenditures	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197

This analysis considered three capital funding scenarios:

- **“Cash Only” Scenario:** Intending to minimize the total project cost by avoiding debt interest payments, this scenario envisions funding the CIP exclusively with cash. Because debt issuance is not an option in this scenario, rates must cover any costs in excess of other available cash resources. As a result, the level of capital replacement and improvement funding in this scenario is based on projected needs rather than being linked to a target based on depreciation expense.
- **“Maximum-Debt” Scenario:** This scenario provides the opposing bookend to the “cash only” scenario, issuing debt as needed to minimize the near-term rate increases. It does not explicitly provide for capital funding through rates, though rates may incidentally generate cash for capital when debt service coverage requirements drive rate increases.
- **“Hybrid” Scenario:** This is the “middle-of-the-road” scenario, attempting to balance the pros and cons of the other two scenarios. It contemplates some level of debt issuance to mitigate the upfront financial impacts of the CIP, but defines a cash contribution from rates for capital

replacement and improvement to limit the utility’s indebtedness. This scenario assumes an initial cash funding level equal to annual depreciation expense beginning in 2020, increasing to a longer-term goal of 150% of depreciation expense within a ten-year period.

Exhibit 3.2 summarizes the projected capital funding strategy for each scenario.

Exhibit 3.2: 2018 – 2023 Capital Funding Strategy (\$000s)

“Cash Only” Scenario	2018	2019	2020	2021	2022	2023	2024-47
Projected Capital Expenditures	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197
Projected Funding Strategy:							
Contributions from Mountain Village	\$ 761	\$ 240	\$ 364	\$ 1,203	\$ 2,490	\$ 1,268	\$ 31,547
Tap Fees	197	609	412	418	425	431	11,908
Cash	-	1,428	370	1,927	4,314	2,042	50,742
Total Funding Sources	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197

“Maximum Debt” Scenario	2018	2019	2020	2021	2022	2023	2024-47
Projected Capital Expenditures	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197
Projected Funding Strategy:							
Contributions from Mountain Village	\$ 761	\$ 240	\$ -	\$ -	\$ 3,423	\$ 1,902	\$ 31,547
Tap Fees	197	609	-	-	-	1,686	11,908
Net Debt Proceeds	-	-	1,146	3,548	3,806	-	49,197
Cash	-	1,428	-	-	-	153	1,545
Total Funding Sources	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197

“Hybrid” Scenario	2018	2019	2020	2021	2022	2023	2024-47
Projected Capital Expenditures	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197
Projected Funding Strategy:							
Contributions from Mountain Village	\$ 761	\$ 240	\$ -	\$ -	\$ 4,057	\$ 1,268	\$ 31,547
Tap Fees	197	609	-	-	1,066	620	11,908
Net Debt Proceeds	-	-	1,146	3,548	2,106	-	26,609
Cash	-	1,428	-	-	-	1,853	24,133
Total Funding Sources	\$ 958	\$ 2,277	\$ 1,146	\$ 3,548	\$ 7,229	\$ 3,741	\$ 94,197

Exhibit 3.2 indicates that the Town’s current cash resources will be inadequate to cover the projected capital costs, even with Mountain Village’s contributions. Unless the Town can delay projects, it will have to either seek external funding or increase its wastewater rates to generate the necessary funding. With respect to the line items shown above,

- Mountain Village’s contributions are generally set to 35% of the treatment-related capital cost (shown in **Exhibit 3.1**, excluding ‘administrative tasks’ projects). Mountain Village’s projected 2018 payment is \$761,250, which is 35% of the treatment-related improvements included in the 2018 Budget (\$2,175,000). Recognizing that the updated CIP reflects the deferral of some projects, the 2019 payment is adjusted so that Mountain Village pays the correct amount for the 2018 – 2019 period. Note that the amounts shown in **Exhibit 3.2**

exclude Mountain Village's contribution toward operating expenses, which is projected to be on the order of \$400,000 – \$500,000 per year.

- The “maximum debt” scenario contemplates \$9.2 million in debt issuance in 2020, providing \$8.5 million in net proceeds to apply toward project costs. The “hybrid” scenario assumes a \$7.4 million bond issue to provide \$6.8 million in net proceeds. Consistent with federal requirements pertaining to tax-exempt bonds, **Exhibit 3.2** shows the Town spending the proceeds on projects over a three-year period and retaining its other resources (contributions from Mountain Village, tap fees, other cash) until the bond proceeds have been spent. Assuming an interest rate of 5.0%, a repayment term of 30 years, and issuance costs equal to 1% of the amount issued, the projected 2020 bond issue would result in annual debt service of \$598,000 in the “maximum debt” scenario and \$478,000 in the “hybrid” scenario.
- The “cash” line items include existing cash balances (\$1.2 million as of 12/31/17), projected interest earnings (calculated each year based on the beginning capital fund balance at a rate of 1.25% per year, based on a recent history of interest rates for the Colorado Local Government Liquid Asset Trust), and capital replacement/improvement funding from rates.

It is worth noting that the longer-term CIP will likely require additional external financing, which may come from future debt issuance and/or the formation of a special district.

C. OPERATING FORECAST

The operating forecast helps determine whether the existing rates and charges are sufficient to recover the costs that the Town incurs to operate and maintain the treatment plant and collection system. The 2018 Budget formed the baseline for this forecast, with adjustments for expected cost inflation and any other operating cost changes anticipated by Town staff. The key assumptions used in the development of the wastewater operating forecasts include:

1. Operating Revenue

- The rate revenue forecast is initially based on actual 2017 customer data, and reflects adjustments for growth. This analysis assumes 1.5% annual growth in wastewater customers, flows, and loadings, based on the WWTMP's discussion of population growth..
- Operating payments from the Town of Mountain Village are estimated at 35% of the projected operating budget for the treatment plant, consistent with the agreement between Telluride and Mountain Village.
- Miscellaneous operating revenues are held at the budgeted 2018 levels.

2. Operating Expenses

- The forecast of operating expenses is based on the 2018 Budget, with future projections reflecting adjustments for inflation. Most expenses are adjusted for general inflation (based

on the Consumer Price Index) at a rate of 2.50% per year; recognizing that salary and benefit costs have increased at a rate above general inflation, they are escalated by 5.0% per year.

3. Debt Service

- The Town does not currently have any outstanding debt attributable to its wastewater utility. For new debt, the estimated payments are calculated assuming a 30-year repayment period, an interest rate of 5.00%, and issuance costs equal to 1.00% of the amount issued.

D. REVENUE SUFFICIENCY EVALUATION

The revenue requirement analysis evaluates the utility’s ability to cover its projected costs under its currently adopted rates. In the event of any projected deficiencies, this analysis will serve as the basis for a strategy of recommended rate adjustments.

1. Telluride Revenue Requirement

Exhibit 3.3 summarizes the revenue sufficiency evaluation for the Town’s wastewater utility:

Exhibit 3.3: Revenue Sufficiency Evaluation (\$000s)

“Cash Only” Scenario	2018	2019	2020	2021	2022	2023
Rate Revenue at 2018 Rates	\$1,050	\$1,066	\$1,082	\$1,098	\$1,115	\$1,131
O&M Payments from Mountain Village	405	419	434	449	465	482
Miscellaneous Operating Revenue	40	40	40	40	40	40
Interest Earnings (Operating Reserve)	2	1	5	5	5	5
Total Revenues	\$1,497	\$1,526	\$1,561	\$1,592	\$1,625	\$1,658
Operating Expenses	\$1,488	\$1,539	\$1,592	\$1,646	\$1,703	\$1,762
Debt Service	-	-	-	-	-	-
Capital Replacement & Improvement Funding	-	-	1,320	2,137	3,252	3,773
Total Expenses	\$1,488	\$1,539	\$2,912	\$3,783	\$4,955	\$5,535
Net Operating Cash Flow	\$9	(\$13)	(\$1,351)	(\$2,191)	(\$3,330)	(\$3,877)
Annual Rate Increase Required		70.00%	33.00%	33.00%	33.00%	11.00%
Summary After Rate Increases						
Rate Revenue	\$1,050	\$1,812	\$2,446	\$3,303	\$4,458	\$5,023
Net Operating Cash Flow	\$9	\$734	\$13	\$13	\$14	\$14
Debt Service Coverage	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
Ending Balance	\$1,458	\$577	\$1,543	\$1,781	\$749	\$2,499

Exhibit 3.3 (Continued): Revenue Sufficiency Evaluation (\$000s)

"Maximum Debt" Scenario	2018	2019	2020	2021	2022	2023
Rate Revenue at 2018 Rates	\$1,050	\$1,066	\$1,082	\$1,098	\$1,115	\$1,131
O&M Payments from Mountain Village	405	419	434	449	465	482
Miscellaneous Operating Revenue	40	40	40	40	40	40
Interest Earnings (Operating Reserve)	2	1	5	13	14	16
Total Revenues	\$1,497	\$1,526	\$1,561	\$1,600	\$1,634	\$1,669
Operating Expenses	\$1,488	\$1,539	\$1,592	\$1,646	\$1,703	\$1,762
Debt Service	-	-	598	598	598	598
Capital Replacement & Improvement Funding	-	-	-	-	-	-
Total Expenses	\$1,488	\$1,539	\$2,189	\$2,244	\$2,301	\$2,360
Net Operating Cash Flow	\$9	(\$13)	(\$628)	(\$644)	(\$667)	(\$691)
Annual Rate Increase Required		70.00%	0.00%	0.00%	0.00%	0.00%
Summary After Rate Increases						
Rate Revenue	\$1,050	\$1,812	\$1,839	\$1,867	\$1,895	\$1,923
Net Operating Cash Flow	\$9	\$734	\$129	\$125	\$114	\$101
Debt Service Coverage	(N/A)	(N/A)	1.91	2.08	2.04	1.94
Ending Balance	\$1,458	\$577	\$8,838	\$7,142	\$3,023	\$1,111

"Hybrid" Scenario	2018	2019	2020	2021	2022	2023
Rate Revenue at 2018 Rates	\$1,050	\$1,066	\$1,082	\$1,098	\$1,115	\$1,131
O&M Payments from Mountain Village	405	419	434	449	465	482
Miscellaneous Operating Revenue	40	40	40	40	40	40
Interest Earnings (Operating Reserve)	2	1	5	11	13	16
Total Revenues	\$1,497	\$1,526	\$1,561	\$1,598	\$1,633	\$1,669
Operating Expenses	\$1,488	\$1,539	\$1,592	\$1,646	\$1,703	\$1,762
Debt Service	-	-	478	478	478	478
Capital Replacement & Improvement Funding	-	-	379	403	474	618
Total Expenses	\$1,488	\$1,539	\$2,449	\$2,527	\$2,655	\$2,858
Net Operating Cash Flow	\$9	(\$13)	(\$888)	(\$929)	(\$1,022)	(\$1,189)
Annual Rate Increase Required		70.00%	8.00%	8.00%	8.00%	8.00%
Summary After Rate Increases						
Rate Revenue	\$1,050	\$1,812	\$1,987	\$2,178	\$2,387	\$2,617
Net Operating Cash Flow	\$9	\$734	\$16	\$151	\$250	\$296
Debt Service Coverage	(N/A)	(N/A)	2.69	3.21	3.55	3.86
Ending Balance	\$1,458	\$577	\$7,405	\$6,119	\$2,598	\$1,492

Exhibit 3.3 indicates that the existing rates are adequate to cover projected operating expenditures for 2018, but do not generate enough cash flow to meet the recommended target balances with the projected amount of capital spending. A deficit in operating cash flow begins in 2019, compounded by the impacts of new debt service and capital replacement and improvement funding. **Exhibit 3.4** provides a comparative summary of the rate forecasts for these alternatives:

Exhibit 3.4: Summary of Financial Plan Scenarios (2018-2023)

"Cash Only" Scenario	2018	2019	2020	2021	2022	2023	Cumulative
Annual Rate Adjustment		70.0%	33.0%	33.0%	33.0%	11.0%	343.9%
Bimonthly Residential Bill	\$61.08	\$103.84	\$138.10	\$183.68	\$244.29	\$271.16	
Change From Prior Year		+\$42.76	+\$34.27	+\$45.57	+\$60.61	+\$26.87	+\$210.08

"Maximum Debt" Scenario	2018	2019	2020	2021	2022	2023	Cumulative
Annual Rate Adjustment		70.0%	0.0%	0.0%	0.0%	0.0%	70.0%
Bimonthly Residential Bill	\$61.08	\$103.84	\$103.84	\$103.84	\$103.84	\$103.84	
Change From Prior Year		+\$42.76	\$0.00	\$0.00	\$0.00	\$0.00	+\$42.76

"Hybrid" Scenario (Recommended)	2018	2019	2020	2021	2022	2023	Cumulative
Annual Rate Adjustment		70.0%	8.0%	8.0%	8.0%	8.0%	131.3%
Bimonthly Residential Bill	\$61.08	\$103.84	\$112.14	\$121.11	\$130.80	\$141.27	
Change From Prior Year		+\$42.76	+\$8.31	+\$8.97	+\$9.69	+\$10.46	+\$80.19

FCS GROUP recommends that the Town consider the "hybrid" scenario above even though the cumulative impact of rate increases is higher for the period shown. Our recommendation is based on longer-term impacts beyond the next five years. For example:

- The "hybrid" scenario avoids future instances of very large rate increases compared to the "maximum debt" scenario. In our experience, more predictable, moderate, annual increases are easier for communities to absorb than are large, less frequent ones. **Exhibit 3.5** provides a summary of the difference in annual rate adjustments among the three scenarios.
- The "hybrid" scenario increases revenue to a point that will provide a larger number of options for the Town after 2023. The largest portion of the Town's capital improvements costs are scheduled after 2024 and it is likely that the Town will need greater access to lending sources at that time.

Exhibit 3.5: Bimonthly Residential Wastewater Bill Forecast (by Scenario)

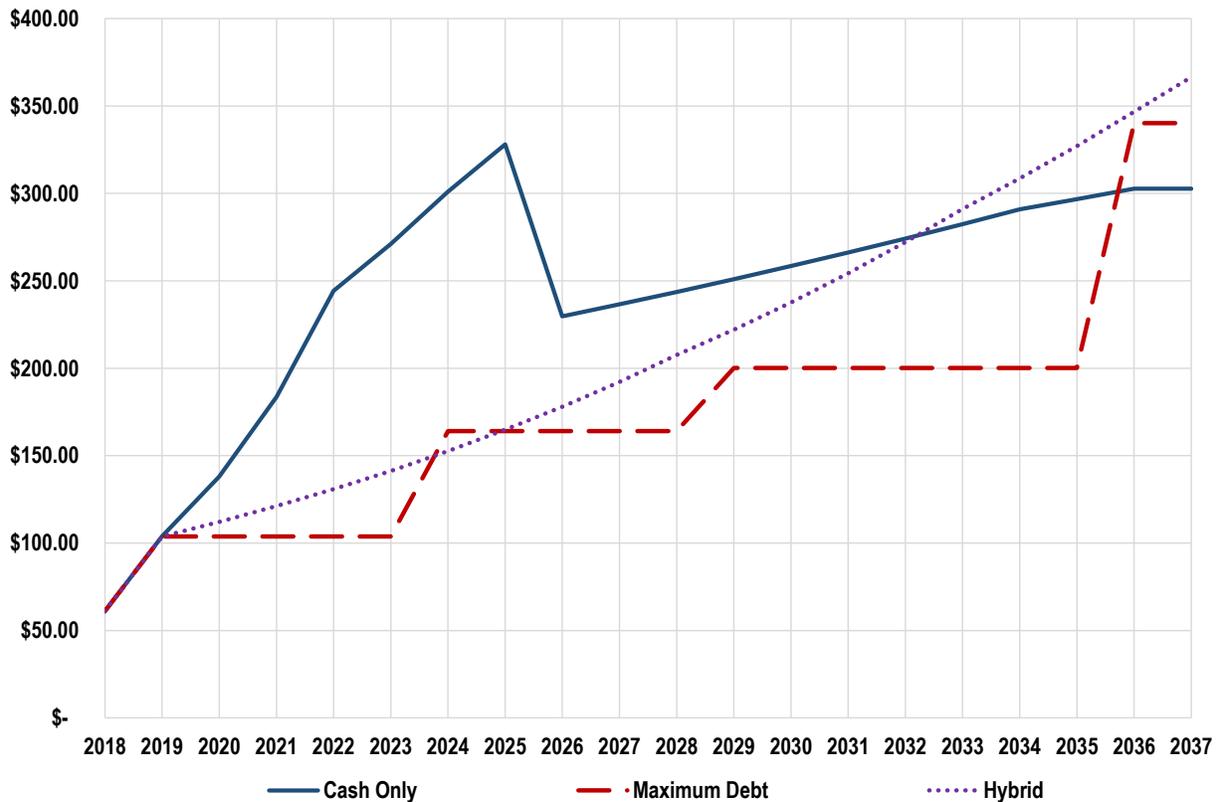


Exhibit 3.5 indicates that:

- The “cash only” scenario results in the highest near-term rate impacts, but the lowest long-term rates – beyond 2025, the Town would be able to decrease the rate unless additional capital needs are identified. This scenario also raises the question of generational equity, as it frontloads the generation of capital funding for improvements that will benefit future growth.
- The “maximum debt” scenario results in the lowest near-term rate impacts, with periodic but relatively large increases to cover the debt service on projected future bond issues. While this scenario generally results in lower rates than the other scenarios, it comes with risks as it is sensitive to changes in key debt parameters. This analysis assumes a 5% interest rate, but increases in interest rates may require corresponding rate increases. Beginning in 2024, debt service coverage will be the key driver of rate increases – while this analysis assumes that the Town maintains coverage at or above 1.50 times parity debt service, there could be additional rate impacts if the Town has to meet a higher standard in the future.
- The “hybrid” scenario is generally between the two scenarios, but ends up with the highest rates by 2037. While the “maximum debt” scenario sets rate increases to coincide with projected debt issuance, the “hybrid” scenario increases rates annually between debt issues. Though this results in higher rates than the other scenarios at certain points in time, but leaves the utility in a better position to fund a greater portion of projects with cash and secure

more favorable terms when the Town has to issue debt. This scenario mitigates the downsides of the other two scenarios, avoiding the steep upfront rate increase needed in the “cash only” scenario and reducing the rate shocks that occur in the “maximum debt” scenario as the Town issues additional debt.

2. Mountain Village Revenue Requirement

As previously noted, this analysis included the development of a summary-level financial forecast for the Town of Mountain Village, incorporating the impacts of the projected contributions to Telluride’s treatment-related operating and capital costs (shown in **Exhibit 3.2** and **Exhibit 3.3**, respectively). This forecast uses the same general framework of financial policies as the forecast developed for Telluride, but reflects Mountain Village’s current practice of tracking its water and wastewater utilities as a single combined enterprise. **Exhibit 3.6** summarizes the financial forecast:

Exhibit 3.6: Financial Forecast Summary – Mountain Village (\$000s)

Revenue Sufficiency Evaluation	2018	2019	2020	2021	2022	2023
Rate Revenue at 2018 Rates	\$2,689	\$2,730	\$2,770	\$2,811	\$2,852	\$2,894
Other Operating Revenue	30	24	23	23	24	25
Total Revenues	\$2,719	\$2,754	\$2,793	\$2,834	\$2,876	\$2,919
O&M Payments to Telluride	\$ 405	\$ 419	\$ 434	\$ 449	\$ 465	\$ 482
Other Operating Expenses	1,461	1,396	1,417	1,436	1,458	1,479
Debt Service	-	-	-	-	-	-
Total Expenses	\$1,866	\$1,815	\$1,851	\$1,885	\$1,923	\$1,961
Net Operating Cash Flow	\$853	\$939	\$942	\$949	\$953	\$958
Annual Rate Increase		2.50%	2.50%	2.50%	2.50%	2.50%
Rate Revenue	\$2,689	\$2,798	\$2,910	\$3,027	\$3,148	\$3,275
Net Operating Cash Flow	\$853	\$1,007	\$1,083	\$1,165	\$1,249	\$1,338
Debt Service Coverage	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
Ending Balance	\$2,863	\$3,348	\$3,939	\$3,775	\$2,408	\$2,344
Beginning Balance Available for Capital	\$3,675	\$2,403	\$2,901	\$3,482	\$3,311	\$1,934
Plus: Interest Earnings	-	12	14	18	16	9
Plus: Tap Fees	107	107	107	107	107	107
Plus: Funding from Rates	-	1,019	1,074	1,157	1,240	1,329
Less: Capital Expenditures						
Contribution for TRWWTP Projects	(761)	(240)	(364)	(1,203)	(2,490)	(1,268)
Other	(618)	(400)	(250)	(250)	(250)	(250)
Ending Balance Available for Capital	\$2,403	\$2,901	\$3,482	\$3,311	\$1,934	\$1,861

Exhibit 3.6 indicates that Mountain Village’s existing water and wastewater rates are adequate to cover its utilities’ operating expenditures through at least 2023. The longer-term financial forecast indicates that Mountain Village will require external funding to pay for its share of improvements at the TRWWTP.

It is important to note that these financial projections are based upon current assumptions and the current capital program. Circumstances might change over time, causing actual rate adjustments to be higher or lower once actual costs are known. It would be prudent for Telluride and Mountain Village to monitor the financial status of their wastewater utilities regularly, revisiting the financial plan periodically or in the event of significant changes to the assumptions outlined above.

Section IV. COST-OF-SERVICE ANALYSIS

The revenue requirement analysis establishes the amount of revenue that the Town must collect through its wastewater rates, but does not explicitly address how to collect that revenue from its customers. The Water Environment Federation (WEF) recommends a two-tiered approach in which costs are first allocated to functions of service and then allocated to customers based on their demand characteristics and service needs. The ensuing sections discuss these allocations in further detail.

A. FUNCTIONAL COST ALLOCATION

The first step in the cost-of-service analysis is to allocate the various elements of the revenue requirement to functions of service. Some line items in the Town’s budget may be directly attributable to a function of service, while others require a functional allocation of system assets. Where possible, this analysis integrates system planning criteria and operational information. Functions of service relevant to a wastewater utility typically include:

- **Customer:** Costs that do not depend on meter size or water usage, such as meter reading, billing, and customer service
- **Flow:** Costs associated with facilities that convey wastewater to treatment facilities
- **Strength:** Costs incurred to provide capacity to treat wastewater discharges of varying strength, commonly measured in terms of biochemical oxygen demand (BOD), suspended solids (SS), nitrogen, and phosphorus.

Exhibit 4.1 summarizes the functional allocation of the 2019 revenue requirement under the recommended “hybrid” scenario:

Exhibit 4.1: Functional Allocation of 2019 Revenue Requirement (“Hybrid” Scenario)

2019 Revenue Requirement	Total	Functional Allocation			Notes
		Customer	Flow	BOD	
Treatment Facility O&M					
Chemicals	\$ 32,800	0.0%	0.0%	100.0%	All to BOD
Sludge Disposal Permit	16,913	0.0%	0.0%	100.0%	All to BOD
Biosolids Disposal	92,250	0.0%	0.0%	100.0%	All to BOD
Sludge Truck Maintenance	17,325	0.0%	0.0%	100.0%	All to BOD
Admin Transfers to General Fund	77,777	39.4%	29.7%	30.9%	Per 2013 Rate Study
Other	960,158	0.0%	50.0%	50.0%	50% Flow, 50% BOD
Sewer System O&M					
Admin Transfers to General Fund	181,481	100.0%	0.0%	0.0%	All to Customer
Other	160,223	0.0%	100.0%	0.0%	All to Flow
Less: O&M Payments from Mountain Village	(419,028)	2.6%	42.0%	55.4%	Per Treatment O&M Allocation
Less: Other Non-Rate Revenue	(41,384)	13.6%	46.4%	40.0%	As All Other
Net Cash Flow After Rate Increases	733,764	13.6%	46.4%	40.0%	As All Other
Net Rate Revenue Requirement	\$1,812,279	\$325,954	\$788,534	\$697,792	
Percent of Total	100.0%	18.0%	43.5%	38.5%	

Note that **Exhibit 4.1** does not include Mountain Village’s share of treatment-related costs, which is set at 35% by contract. The cost-of-service analysis focuses on defining the net cost allocable to Telluride and its other contract customers, net of all payments made by Mountain Village.

B. CUSTOMER CLASS COST ALLOCATION

Once the revenue requirement is split into functional cost pools, the next step in the cost-of-service analysis involves allocating the costs assigned to each function to customers based on their demands and service characteristics. The Town provides utility service to two primary customer classes:

- **Residential:** Single-family homes represent the majority of the Town’s customer base. These customers typically generate relatively low volumes with domestic strength characteristics.
- **Commercial:** Customers in this class typically generate higher wastewater flows than a single-family home. There is a greater diversity in water usage patterns and wastewater strength characteristics among these customers, with variations based on business type.

To evaluate how equitably the Town’s wastewater rate structure recovers costs from its customers, the cost-of-service analysis separates residential and commercial customers by geographic area. This analysis also required a mass balance to estimate the flows and BOD loadings attributable to customers in each of these groups. **Exhibit 4.2** summarizes the projected customer base for 2019:

Exhibit 4.2: 2019 Customer Base Profile¹

Class	Customer Accounts		Estimated Flows ²		Estimated Loadings ³	
	Number	% of Total	Volume	% of Total	BOD	% of Total
Telluride Residential	1,085	66.8%	64,000 kgal	36.0%	136,108 ppd	32.3%
Telluride Commercial	227	14.0%	89,259 kgal	50.2%	217,995 ppd	51.7%
Residential (Outside Town)	5	0.3%	450 kgal	0.3%	957 ppd	0.2%
Aldasoro Residential	70	4.3%	4,016 kgal	2.3%	8,541 ppd	2.0%
Lawson Hill Residential	135	8.3%	7,969 kgal	4.5%	16,949 ppd	4.0%
Lawson Hill Commercial	30	1.8%	5,676 kgal	3.2%	13,862 ppd	3.3%
Hillside Residential	62	3.8%	3,121 kgal	1.7%	6,638 ppd	1.6%
Hillside Commercial	11	0.7%	3,019 kgal	1.7%	7,373 ppd	1.7%
Septic Haulers	-	0.0%	230 kgal	0.1%	13,427 ppd	3.2%
Total	1,626	100.0%	177,741 kgal	100.0%	421,850 ppd	100.0%

¹Customer statistics are weighted to reflect the Town’s rate discounts (25% discount for size/deed-restricted residences, no charge for members of the Volunteer Fire Department)

²Based on water usage, net of estimated flows from Mountain Village (35% of total flow at TRWWTP) and adjusted for inflow and infiltration. Septic hauler volumes are based on WWTMP data.

³Based on actual 2017 loadings (net of 35% for Mountain Village). Per WWTMP criteria, residential loadings estimated at 255 mg/L (80 gpcd, 0.17 ppd); septage estimated to be 7,000 mg/L. The remaining loadings suggest an average commercial strength of 292.8 mg/L.

Exhibit 4.3 summarizes the allocation of the 2019 revenue requirement to classes based on this data.

Exhibit 4.3: Allocation of 2019 Rate Revenue Requirement

Class	Allocated Cost of Service				Revenue @ Current Rates	Δ From Current Rates
	Customer	Flow	BOD	Total		
Telluride Residential	\$ 217,598	\$ 283,931	\$ 225,140	\$ 726,669	\$ 397,781	+82.7%
Telluride Commercial	45,462	395,994	360,591	802,047	480,406	+67.0%
Residential (Outside Town)	1,022	1,996	1,583	4,600	2,334	+97.0%
Aldasoro Residential	14,098	17,817	14,127	46,042	32,216	+42.9%
Lawson Hill Residential	27,137	35,356	28,035	90,528	62,010	+46.0%
Lawson Hill Commercial	5,925	25,181	22,930	54,037	43,492	+24.3%
Hillside Residential	12,464	13,847	10,980	37,290	28,481	+30.9%
Hillside Commercial	2,248	13,392	12,195	27,835	19,327	+44.0%
Septic Haulers	-	1,020	22,211	23,231	-	(N/A)
Total	\$ 325,954	\$ 788,534	\$ 697,792	\$1,812,279	\$1,066,047	+70.00%

Exhibit 4.3 reflects the following cost-allocation principles:

- Customer costs are allocated based on the number of accounts served
- Flow costs are allocated based on estimated wastewater flow
- BOD costs are allocated based on estimated BOD loadings

Exhibit 4.3 suggests that in aggregate, the existing rate structure recovers costs relatively equitably from the Town’s residential and commercial customers. Under the existing structure, residential customers represent about 49.9% of total annual rate revenue; the cost-of-service analysis indicates that their equitable share of costs is approximately 49.0%. This finding reflects an adjustment for the allocation of costs to septic haulers, who are currently subject to a rate of \$0.10 per gallon but do not represent a consistent customer base for the Town. Based on an estimated 230,000 gallons per year of septage and a loading of 7,000 mg/L of BOD, the costs allocated to septic haulers equate to a rate of approximately \$0.10 per gallon, validating the existing structure.

Another finding from **Exhibit 4.3** is that with the exception of a few residential customers, the Town’s existing 1.25 rate multiplier for customers outside the Town is generally adequate to recover the costs of those services plus an additional amount to compensate the Town as envisioned in the various service agreements. As an alternative to imposing the 70.0% rate increase shown for 2019 in **Exhibit 3.3**, **Exhibit 4.3** shows a series of class-specific rate increases to generate the targeted amount of revenue. The rate increases for Aldasoro, Lawson Hill, and Hillside would be lower than 70.0%, and the increase for Telluride would be greater than 70.0% to make up the difference. It is important to recognize that this finding relies on various assumptions including the estimate of flows from Aldasoro, the (proportionate) allocation of flows from inflow and infiltration, and uniformity in wastewater strength characteristics across areas (with different assumptions for residential and commercial customers).

Section V. RATE STRUCTURE ALTERNATIVES

Once each customer class' cost of service has been determined, the final step is to design a set of rates that will generate the required amount of revenue from each class. There is a fair amount of flexibility in designing the rate structure. Fixed charges ensure a relatively stable level of revenue generation, but volume charges are also integral to overall equity and the Town's longer-term water conservation goals. This analysis included the development of two rate alternatives:

- Across-the-board increase, based on the increases shown in **Exhibit 3.3**.
- Class-specific across-the-board increases, based on the increases shown in **Exhibit 4.3**.

Exhibit 5.1 presents the rates computed for each of these alternatives.

Exhibit 5.1: 2019 Wastewater Rate Structure Alternatives

	Existing	A-T-B Increase	Cost-of-Service Rates			
Inside Town	All Inside	All Inside	Telluride			
Residential Base Rates						
Size/Deed-Restricted	\$45.59	\$77.50	\$83.28			
Other	\$61.08	\$103.84	\$111.58			
Commercial Base Rates						
5/8" Meter (Includes 8 kgal)	\$61.08	\$103.44	\$101.97			
3/4" Meter (Includes 12 kgal)	\$91.44	\$155.45	\$152.66			
1" Meter (Includes 16 kgal)	\$122.03	\$207.45	\$203.73			
1-1/2" Meter (Includes 32 kgal)	\$243.97	\$414.75	\$407.31			
2" Meter (Includes 48 kgal)	\$366.01	\$622.22	\$611.06			
3" Meter (Includes 72 kgal)	\$549.00	\$933.30	\$916.57			
4" Meter (Includes 96 kgal)	\$732.02	\$1,244.43	\$1,222.12			
Volume Rate per kgal	\$6.87	\$11.68	\$11.47			
Outside Town	All Outside	All Outside	Outside Town	Aldasoro	Lawson Hill	Hillside
Residential Base Rates						
Size/Deed-Restricted	\$56.99	\$96.88			\$83.20	\$74.61
Other	\$76.35	\$129.80	\$150.44	\$109.12	\$111.46	\$99.97
Commercial Base Rates						
5/8" Meter (Includes 8 kgal)	\$76.35	\$129.80			\$94.86	\$109.96
3/4" Meter (Includes 12 kgal)	\$114.30	\$194.31			\$142.01	\$164.61
1" Meter (Includes 16 kgal)	\$152.54	\$259.32			\$189.53	\$219.69
1-1/2" Meter (Includes 32 kgal)	\$304.96	\$518.43			\$378.90	\$439.20
2" Meter (Includes 48 kgal)	\$457.51	\$777.77			\$568.44	\$658.90
3" Meter (Includes 72 kgal)	\$686.25	\$1,166.63			\$852.64	\$988.33
4" Meter (Includes 96 kgal)	\$915.03	\$1,555.55			\$1,136.89	\$1,317.82
Volume Rate per kgal	\$8.59	\$14.60			\$10.67	\$12.37

Exhibit 5.2 summarizes the effective rate multipliers produced by the “cost-of-service” alternative:

Exhibit 5.2: Summary of COS-Based Rate Multipliers

Class	Effective Rate Multiplier
Telluride Residential	1.00
Telluride Commercial	1.00
Residential (Outside Town)	1.35
Aldasoro Residential	0.98
Lawson Hill Residential	1.00
Lawson Hill Commercial	0.93
Hillside Residential	0.90
Hillside Commercial	1.08

The “effective rate multiplier” is the cost-of-service based rate determined for each class divided by the applicable inside-Town rate for the same class. The Town currently charges outside-Town customers a 25% surcharge on top of the inside-Town rate.

Exhibit 5.2 demonstrates that the cost of providing service outside the Town is generally not 25% more expensive than providing similar services inside the Town. However, based on the agreements that govern the rates for outside-Town customers, the rate multiplier was not intended to only recover direct costs, but also to provide additional consideration in exchange for the Town’s agreement to provide wastewater service to these extraterritorial areas. It is commonly used in the utility industry to at least conceptually recognize that providing service to customers outside of a jurisdiction’s corporate limits is less efficient due to lower infrastructure density, those customers are less likely to pay taxes that support the utility, and they are generally less exposed to the utility’s financial risks than customers inside the jurisdiction. It is not unusual to see agreements such as those between the Town and its outside-Town customers that include a simple surcharge (1.25 to 1.50x are common) in lieu of a more complicated methodology for determining extraterritorial rates.

Generally accepted utility ratemaking processes include more advanced methods to determine a cost-based outside rate multiplier. The method is called the “utility-basis” (the method the Town currently uses is called the “cash-needs” approach) and it includes three primary elements:

- **Operating Expenses:** The projected 2018 operating budget is \$1,488,200.
- **Depreciation:** The Town’s 2017 Financial Statement reported \$314,890.
- **Return on Assets:** The 2017 Financial Statement reported a net book value of \$3,788,026 for the wastewater utility’s assets. Multiplying this value by an estimated cost of capital of 7.0% (4.0% cost of debt, plus 3.0% allowance for equity) results in a return of \$265,160.

These elements add up to a total of \$2.1 million, which is approximately 1.4 times the total cash-based requirement. While the Town could potentially use this finding to justify an increase in its outside rate multiplier, it is unlikely that such a change would materially impact the revenues earned from outside-Town customers (who account for just under 14% of annual rate revenue in total). In addition, a 2016 study conducted by the Colorado Department of Local Affairs’ Division of Local Government found that on average, outside customers pay 1.27 times the applicable inside rates – the Town’s existing multiplier is consistent with this regional average.

Section VI. CONCLUSIONS

The key findings of the Wastewater Rate Study include:

- The Town’s wastewater revenues do not appear to be sufficient to cover projected operating expenses in the coming years – the Town would need inflationary rate adjustments to maintain the current balance of revenues and expenses, even without having to pay for the projects in its capital program.
- The capital improvements outlined in the WWTMP will impose a financial burden requiring significant rate increases to generate cash funding and/or repay related debt service. This analysis developed a rate-based funding strategy for the first phase of improvements, which the Town expects to complete by 2023. The Town may consider alternative funding sources (e.g. a taxing district) for the second phase of improvements.
- The recommended financial strategy contemplates a 2019 rate revenue increase of 70.0%, followed by increases of 8.0% per year. These increases will help the Town keep up with operating costs, generate cash funding for the capital program, and pay debt service on assumed new debt in the amount of \$478,000 per year. We recommend this “hybrid” funding scenario over the other scenarios for the following reasons:
 - The upfront increases are more moderate than the “cash only” scenario, and avoid a scenario where the Town has to increase rates to then drop them in subsequent years. Compared to the “cash only” scenario, the recommended scenario provides improved generational equity by recovering a greater share of costs from the future customers that will benefit from the WWTP improvements.
 - Though the “hybrid” scenario results in higher rates than the “maximum debt” scenario, it is less sensitive to key debt parameters such as the interest rate and target coverage ratio. It also results in a lower level of indebtedness, leaving the utility with a degree of flexibility to phase future rate increases in.
- The cost-of-service analysis generally supports the allocation of costs between the Town’s residential, commercial, and outside-Town customers, and validates the City’s existing septage rate. The proposed rate schedule for 2019 reflects the cost-of-service findings.

Exhibit 6.1 provides a comparison of water and wastewater bills for Telluride and other local jurisdictions.

Exhibit 6.1: Bimonthly Bill Comparison

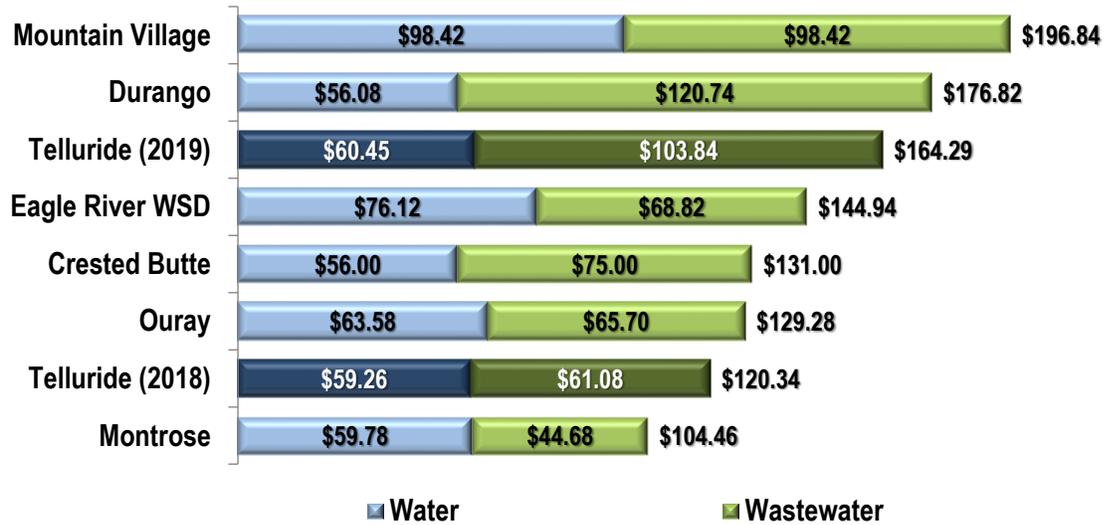


Exhibit 6.1 shows that Telluride is currently near the bottom of the survey group in terms of the combined water/wastewater bill, and would move higher in the relative rankings with the proposed 2019 rate increase. It is important to note that each utility’s rates reflect its unique demographics and operating/capital needs, making this type of bill comparison superficial at best. However, it is worth mentioning that Durango and Eagle River Water & Sewer District are facing similar regulatory issues to Telluride while Montrose has not. As an increasing number of jurisdictions invest in infrastructure to comply with these regulatory requirements, Telluride’s rates should remain within a reasonable range of its peers.

We recommend that the Town revisit the study findings regularly, verifying that the assumptions used are still appropriate and no significant changes have occurred that would alter the results of the study. The Town should use the study findings as a living document, continuously comparing the study outcomes to actual revenues and expenses. Any significant or unexpected changes may require adjustments to the recommended charges presented in this report.

Appendix A:

Telluride Rate Analysis (Hybrid Scenario)

Town of Telluride
Utility Rate Study: Wastewater Utility
Summary

Revenue Requirement	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenues													
Rate Revenues Under Existing Rates	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
Non-Rate Revenues	446,323	460,412	478,566	500,088	517,965	537,725	558,723	582,124	599,148	617,027	638,580	660,622	679,887
Total Revenues	\$ 1,496,585	\$ 1,526,458	\$ 1,560,604	\$ 1,598,356	\$ 1,632,707	\$ 1,669,188	\$ 1,707,158	\$ 1,747,785	\$ 1,782,295	\$ 1,817,921	\$ 1,857,487	\$ 1,897,812	\$ 1,935,635
Expenses													
Cash Operating Expenses	\$ 1,488,200	\$ 1,538,927	\$ 1,591,599	\$ 1,646,297	\$ 1,703,108	\$ 1,762,122	\$ 1,823,434	\$ 1,887,140	\$ 1,953,346	\$ 2,022,158	\$ 2,093,690	\$ 2,168,058	\$ 2,245,387
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	478,243	478,243	478,243	478,243	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474
Rate Fund Capital	-	-	379,590	402,514	473,472	618,060	692,884	807,451	1,053,001	1,103,039	1,443,537	1,812,648	1,895,867
Additions Required to Meet Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 1,488,200	\$ 1,538,927	\$ 2,449,431	\$ 2,527,054	\$ 2,654,823	\$ 2,858,425	\$ 3,683,792	\$ 3,862,066	\$ 4,173,821	\$ 4,292,672	\$ 4,704,701	\$ 5,148,181	\$ 5,308,729
Net Surplus (Deficiency)	\$ 8,385	\$ (12,469)	\$ (888,827)	\$ (928,698)	\$ (1,022,116)	\$ (1,189,237)	\$ (1,976,634)	\$ (2,114,280)	\$ (2,391,526)	\$ (2,474,751)	\$ (2,847,214)	\$ (3,250,369)	\$ (3,373,093)
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 8,385	\$ (12,469)	\$ (888,827)	\$ (928,698)	\$ (1,022,116)	\$ (1,189,237)	\$ (1,976,634)	\$ (2,114,280)	\$ (2,391,526)	\$ (2,474,751)	\$ (2,847,214)	\$ (3,250,369)	\$ (3,373,093)
Annual Rate Increase		70.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.00%	7.00%
Cumulative Rate Increase		70.00%	83.60%	98.29%	114.15%	131.28%	149.79%	169.77%	191.35%	214.66%	239.83%	263.62%	289.07%
Revenues After Rate Increases	\$ 1,050,262	\$ 1,812,279	\$ 1,986,621	\$ 2,177,734	\$ 2,387,231	\$ 2,616,883	\$ 2,868,627	\$ 3,144,589	\$ 3,447,099	\$ 3,778,710	\$ 4,142,222	\$ 4,498,660	\$ 4,885,769
Net Cash Flow After Rate Increase	\$ 8,385	\$ 733,764	\$ 15,756	\$ 150,768	\$ 250,373	\$ 296,183	\$ (256,442)	\$ (135,353)	\$ (127,574)	\$ 103,065	\$ 76,101	\$ 11,100	\$ 256,928
Coverage After Rate Increase: Bonded Debt	n/a	n/a	2.69	3.21	3.55	3.86	1.75	2.04	2.19	2.43	2.71	2.97	3.27
Coverage After Rate Increase: Total Debt	n/a	n/a	2.69	3.21	3.55	3.86	1.75	2.04	2.19	2.43	2.71	2.97	3.27
Sample Residential Bill (5/8" Meter, x 14 ccf)	\$61.08	\$103.84	\$112.14	\$121.11	\$130.80	\$141.27	\$152.57	\$164.77	\$177.96	\$192.19	\$207.57	\$222.10	\$237.65
Annual Increase (\$)		\$42.76	\$8.31	\$8.97	\$9.69	\$10.46	\$11.30	\$12.21	\$13.18	\$14.24	\$15.38	\$16.53	\$17.78

Net Cash Flow Check - - - - -

Fund Balance	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Reserve													
Beginning Balance	\$ 122,318	\$ 110,703	\$ 379,462	\$ 392,449	\$ 543,217	\$ 793,590	\$ 1,089,773	\$ 833,332	\$ 697,979	\$ 570,405	\$ 673,470	\$ 749,570	\$ 534,590
plus: Net Cash Flow after Rate Increase	8,385	733,764	15,756	150,768	250,373	296,183	(256,442)	(135,353)	(127,574)	103,065	76,101	11,100	256,928
less: Transfer of Surplus to Capital Fund	(20,000)	(465,005)	(2,768)	-	-	-	-	-	-	-	-	(226,081)	(237,860)
Ending Balance	\$ 110,703	\$ 379,462	\$ 392,449	\$ 543,217	\$ 793,590	\$ 1,089,773	\$ 833,332	\$ 697,979	\$ 570,405	\$ 673,470	\$ 749,570	\$ 534,590	\$ 553,657
<i>Actual Days of O&M</i>	<i>27 days</i>	<i>90 days</i>	<i>90 days</i>	<i>120 days</i>	<i>170 days</i>	<i>226 days</i>	<i>167 days</i>	<i>135 days</i>	<i>107 days</i>	<i>122 days</i>	<i>131 days</i>	<i>90 days</i>	<i>90 days</i>
<i>Minimum Balance Requirement</i>	\$ 122,318	\$ 379,462	\$ 392,449	\$ 405,936	\$ 419,944	\$ 434,496	\$ 449,614	\$ 465,322	\$ 481,647	\$ 498,614	\$ 516,252	\$ 534,590	\$ 553,657
<i>Maximum Balance Requirement</i>	\$ 122,318	\$ 379,462	\$ 392,449	\$ 405,936	\$ 419,944	\$ 434,496	\$ 449,614	\$ 465,322	\$ 481,647	\$ 498,614	\$ 516,252	\$ 534,590	\$ 553,657
Capital Reserve													
Beginning Balance	\$ 1,109,763	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531
plus: Capital Replacement & Improvement Funding	-	-	379,590	402,514	473,472	618,060	692,884	807,451	1,053,001	1,103,039	1,443,537	1,812,648	1,895,867
plus: Transfers from Operating Fund	20,000	465,005	2,768	-	-	-	-	-	-	-	-	226,081	237,860
plus: Capital Grants / Other Resources	761,250	240,275	363,681	1,202,959	2,490,125	1,267,855	1,961,892	4,252,593	829,590	858,625	888,677	919,781	951,973
plus: Tap Fee Revenue Towards Capital	400,000	406,000	412,090	418,271	424,545	430,914	437,377	443,938	450,597	457,356	464,216	471,180	478,247
plus: Revenue Bond Proceeds	-	-	6,800,000	-	-	-	9,800,000	-	-	-	-	-	-
plus: Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	13,872	16,836	2,475	87,655	69,699	22,554	5,031	94,642	11,156	9,186	7,170	8,713	17,019
Total Funding Sources	\$ 2,304,885	\$ 2,475,002	\$ 8,158,606	\$ 9,123,794	\$ 9,033,738	\$ 4,143,726	\$ 13,299,699	\$ 13,169,993	\$ 3,236,842	\$ 3,163,112	\$ 3,377,208	\$ 4,135,473	\$ 4,942,497
less: Capital Expenditures	(958,000)	(2,277,000)	(1,146,211)	(3,547,897)	(7,229,395)	(3,741,212)	(5,728,330)	(12,277,495)	(2,501,937)	(2,589,505)	(2,680,138)	(2,773,942)	(2,871,030)
Ending Capital Fund Balance	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531	\$ 2,071,467
<i>Minimum Target Balance</i>	\$ 124,258	\$ 147,028	\$ 158,491	\$ 193,970	\$ 266,264	\$ 303,676	\$ 360,959	\$ 483,734	\$ 508,753	\$ 534,648	\$ 561,450	\$ 589,189	\$ 617,899
Combined Beginning Balance	\$ 1,232,081	\$ 1,457,588	\$ 577,463	\$ 7,404,844	\$ 6,119,114	\$ 2,597,934	\$ 1,492,288	\$ 8,404,701	\$ 1,590,478	\$ 1,305,310	\$ 1,247,077	\$ 1,446,641	\$ 1,896,121
Combined Ending Balance	\$ 1,457,588	\$ 577,463	\$ 7,404,844	\$ 6,119,114	\$ 2,597,934	\$ 1,492,288	\$ 8,404,701	\$ 1,590,478	\$ 1,305,310	\$ 1,247,077	\$ 1,446,641	\$ 1,896,121	\$ 2,625,124
<i>Ending Total Days of Operating Expenditures</i>	<i>357 days</i>	<i>137 days</i>	<i>1,698 days</i>	<i>1,357 days</i>	<i>557 days</i>	<i>309 days</i>	<i>1,682 days</i>	<i>308 days</i>	<i>244 days</i>	<i>225 days</i>	<i>252 days</i>	<i>319 days</i>	<i>427 days</i>
<i>Combined Minimum Target Balance</i>	<i>246,576</i>	<i>526,490</i>	<i>550,940</i>	<i>599,906</i>	<i>686,208</i>	<i>738,172</i>	<i>810,573</i>	<i>949,056</i>	<i>990,400</i>	<i>1,033,263</i>	<i>1,077,702</i>	<i>1,123,779</i>	<i>1,171,557</i>

Operating Check - - - - -
Capital Check - - - - -

Town of Telluride
Utility Rate Study: Wastewater Utility
Assumptions

Economic & Financial Factors	Historical	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Escalation Rates														
General Cost Inflation		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Construction Cost Inflation		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Labor Cost Inflation		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Benefit Cost Inflation		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Labor + Benefits		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Customer Growth		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Assessed Value Escalation		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
[Extra]		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[Extra]		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[Extra]		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[Extra]		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
No Escalation		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mt Village Operating Percentage		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
Investment Interest		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%

Accounting & Financial Policy Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Beginning Fund Balances														
Operating Reserve	\$ 1,232,081	Total Fund Balance												
Capital Reserve	\$ 122,318													
Debt Reserve	\$ 1,109,763													
	\$ 1,232,081													
Realization Factors														
Operating Budget Realization Factor (100% is default)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
CIP Completion Factor (100% is default)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Total Operating and Capital Cash Test: Days of O&M (Informational only--does not drive rate increases)														
	120 days	120 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	
Operating Balance: Minimum & Maximum Target														
Min. Fund Balance Target (days of O&M expense)	30 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	
Max. Fund Balance (days of O&M expense)	30 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	
Capital Balance: Minimum Target														
Select Minimum Capital Fund Option →	1													
% of Plant Assets (Original Cost)														
1 % of Plant Assets (Original Cost)	\$ 11,467,849	\$ 124,258	\$ 147,028	\$ 158,491	\$ 193,970	\$ 266,264	\$ 303,676	\$ 360,959	\$ 483,734	\$ 508,753	\$ 534,648	\$ 561,450	\$ 589,189	\$ 617,899
% of Total (between 1%-2%)		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
2 % of Plant Assets + % Annual CIP		\$ 680,294	\$ 703,064	\$ 714,526	\$ 750,005	\$ 822,299	\$ 859,711	\$ 916,994	\$ 1,039,769	\$ 1,064,789	\$ 1,090,684	\$ 1,117,485	\$ 1,145,224	\$ 1,173,935
% of Plant	1%	\$ 124,258	\$ 147,028	\$ 158,491	\$ 193,970	\$ 266,264	\$ 303,676	\$ 360,959	\$ 483,734	\$ 508,753	\$ 534,648	\$ 561,450	\$ 589,189	\$ 617,899
% Annual CIP	10%	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035	\$ 556,035
Total Reserve		\$ 680,294	\$ 703,064	\$ 714,526	\$ 750,005	\$ 822,299	\$ 859,711	\$ 916,994	\$ 1,039,769	\$ 1,064,789	\$ 1,090,684	\$ 1,117,485	\$ 1,145,224	\$ 1,173,935
3 User Input		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Replacement & Improvement Funding														
Select Annual Funding Option →	1													
Original Cost Depreciation														
Target Amounts														
1 Original Cost Depreciation	\$ 314,890	\$ 334,050	\$ 379,590	\$ 402,514	\$ 473,472	\$ 618,060	\$ 692,884	\$ 807,451	\$ 1,053,001	\$ 1,103,039	\$ 1,154,830	\$ 1,208,432	\$ 1,263,911	
2 Estimated Replacement Cost Depreciation	\$ 884,024	\$ 903,184	\$ 948,724	\$ 971,648	\$ 1,042,606	\$ 1,187,194	\$ 1,262,018	\$ 1,376,585	\$ 1,622,135	\$ 1,672,174	\$ 1,723,964	\$ 1,777,566	\$ 1,833,045	
3 Manual User Input	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4 No Rate Funded Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Percent Toggle of Selected Funding Target	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	125%	150%	
Funding Target Assumed in Model	\$ -	\$ -	\$ 379,590	\$ 402,514	\$ 473,472	\$ 618,060	\$ 692,884	\$ 807,451	\$ 1,053,001	\$ 1,103,039	\$ 1,443,537	\$ 1,812,648	\$ 1,895,867	
Actual Result w/ Transfers (compared to Annual Depreciation)	6%	139%	101%	100%	100%	100%	100%	100%	100%	100%	125%	169%	169%	

Town of Telluride
Utility Rate Study: Wastewater Utility
Assumptions

Capital Financing Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Tap Fees														
<u>Calculated</u>														
Actual Charge	Beginning Customer	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	
Existing Customer Base	6,667	6,767	6,868	6,971	7,076	7,182	7,290	7,399	7,510	7,623	7,737	7,853	7,971	
Incremental Customer Base	100	101	103	105	106	108	109	111	113	114	116	118	120	
Annual Charges	\$400,000	\$406,000	\$412,090	\$418,271	\$424,545	\$430,914	\$437,377	\$443,938	\$450,597	\$457,356	\$464,216	\$471,180	\$478,247	
<u>Manual Input</u>														
Total Tap Fee Revenue to Use in Model	Calculated	\$ 400,000	\$ 406,000	\$ 412,090	\$ 418,271	\$ 424,545	\$ 430,914	\$ 437,377	\$ 443,938	\$ 450,597	\$ 457,356	\$ 464,216	\$ 471,180	\$ 478,247
Tap Fees Towards Debt Service														
Total Annual Debt Service		\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	
Policy % Tap Fee to Pay for Debt Service	(0% is default)													
Total Annual Tap Fee Revenue		\$ 400,000	\$ 406,000	\$ 412,090	\$ 418,271	\$ 424,545	\$ 430,914	\$ 437,377	\$ 443,938	\$ 450,597	\$ 457,356	\$ 464,216	\$ 471,180	\$ 478,247
Total Tap Fee for Debt Service		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Net Tap Fee for Capital		\$ 400,000	\$ 406,000	\$ 412,090	\$ 418,271	\$ 424,545	\$ 430,914	\$ 437,377	\$ 443,938	\$ 450,597	\$ 457,356	\$ 464,216	\$ 471,180	\$ 478,247
Other Funding Sources (Uses)														
<u>Capital Grants / Other Resources</u>														
Developer Contributions / Grants		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Mt Village Capital Contribution		761,250	240,275	363,681	1,202,959	2,490,125	1,267,855	1,961,892	4,252,593	829,590	858,625	888,677	919,781	951,973
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	
Total		\$ 761,250	\$ 240,275	\$ 363,681	\$ 1,202,959	\$ 2,490,125	\$ 1,267,855	\$ 1,961,892	\$ 4,252,593	\$ 829,590	\$ 858,625	\$ 888,677	\$ 919,781	\$ 951,973
Revenue Bonds														
Term (years)		30 years	30 years	30 years	30 years	30 years	30 years	30 years	30 years	30 years	30 years	30 years	30 years	
Interest Only Payments (years)		0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	
Interest Cost		4.00%	4.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Legal Minimum or Policy Coverage	1.50													
Use Reserves to Pay for Last Payment?	Yes	("Yes" is default)												
Include / Exclude Tap Fees in Coverage?	Include													
<u>Funding Debt Reserve</u>														
Minimum Reserve Requirement on Existing Revenue Bonds		\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
Beginning Debt Reserve + Additions from New Issues		\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	
Surplus / (Deficit)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Manual Additions to Reserves (leave blank to auto calc.)														
Additions to Debt Reserve	Manual	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Other Loans 1														
<u>Level total payments</u>														
Term (years)		20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	
Interest Only Payments (years)		0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Other Loans 2														
<u>Level principal payments</u>														
Term (years)		20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	
Interest Only Payments (years)		0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	
Interest Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
Other Loans 3														
<u>Level principal payments</u>														
Term (years)		20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years	
Interest Only Payments (years)		0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	0 years	
Interest Cost		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

	Number of Accounts	Bimonthly Base Rate	Base Rate Revenue	Billable Water Use	Usage Rate	Usage Rate Revenue	Total Rate Revenue
Telluride Residential							
Size/Deed Restricted	35	\$43.42	\$ 9,118			\$ -	\$ 9,118
Volunteer EMT/Fire	71		-			-	-
Other	1,039	\$58.17	362,574			-	362,574
Telluride Commercial							
5/8" Meter	58	\$58.17	20,243	3,597 kgal	\$6.54	23,524	43,768
3/4" Meter	35	\$87.09	18,289	2,448 kgal	\$6.54	16,010	34,299
1" Meter	37	\$116.22	25,801	2,829 kgal	\$6.54	18,502	44,303
1-1/2" Meter	40	\$232.35	55,764	5,370 kgal	\$6.54	35,120	90,884
2" Meter	37	\$348.58	76,339	8,979 kgal	\$6.54	58,723	135,062
3" Meter	9	\$522.86	28,234	4,714 kgal	\$6.54	30,830	59,064
4" Meter	7	\$697.16	29,281	1,860 kgal	\$6.54	12,164	41,445
Residential (Outside Town)							
	5	\$72.71	2,181			-	2,181
Aldasoro Residential							
	69	\$72.71	30,102			-	30,102
Lawson Hill Residential							
Size/Deed Restricted	6	\$54.26	1,953			-	1,953
Volunteer EMT/Fire	11		-			-	-
Other	128	\$72.71	55,987			-	55,987
Lawson Hill Commercial							
5/8" Meter	6	\$72.71	2,618	0 kgal	\$8.17	-	2,618
3/4" Meter	14	\$108.86	9,144	1,072 kgal	\$8.17	8,758	17,902
1" Meter	6	\$145.29	5,230	7 kgal	\$8.17	57	5,288
1-1/2" Meter		\$298.75	-		\$8.17	-	-
2" Meter	3	\$435.72	7,843	853 kgal	\$8.17	6,969	14,812
3" Meter		\$672.24	-		\$8.17	-	-
4" Meter		\$896.34	-		\$8.17	-	-
Hillside Residential							
Size/Deed Restricted		\$54.26	-			-	-
Volunteer EMT/Fire	8		-			-	-
Other	61	\$72.71	26,612			-	26,612
Hillside Commercial							
5/8" Meter		\$72.71	-		\$8.17	-	-
3/4" Meter	2	\$108.86	1,306	85 kgal	\$8.17	694	2,001
1" Meter	9	\$145.29	7,846	1,004 kgal	\$8.17	8,203	16,048
1-1/2" Meter		\$298.75	-		\$8.17	-	-
2" Meter		\$435.72	-		\$8.17	-	-
3" Meter		\$672.24	-		\$8.17	-	-
4" Meter		\$896.34	-		\$8.17	-	-
Total	1,696		\$ 776,465	32,818 kgal		\$ 219,554	\$ 996,019
							\$ 985,364 Actual per Town Records
							-1.1% Percent Difference

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

Forecast of Customer Counts		Escalator	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Telluride Residential																
Size/Deed Restricted	Customer Growth		35	35	36	36	37	37	38	38	39	40	40	41	41	42
Volunteer EMT/Fire	Customer Growth		71	72	73	74	75	76	77	78	79	81	82	83	84	86
Other	Customer Growth		1,028	1,043	1,059	1,075	1,091	1,107	1,124	1,141	1,158	1,175	1,193	1,211	1,229	1,247
Total			1,133	1,150	1,167	1,185	1,202	1,220	1,239	1,257	1,276	1,295	1,315	1,335	1,355	1,375
Telluride Commercial																
5/8" Meter	Customer Growth		57	58	59	60	61	62	63	64	65	66	67	68	69	70
3/4" Meter	Customer Growth		35	35	36	36	37	37	38	38	39	40	40	41	41	42
1" Meter	Customer Growth		37	37	38	38	39	39	40	41	41	42	42	43	44	44
1-1/2" Meter	Customer Growth		40	40	41	41	42	43	43	44	45	45	46	47	47	48
2" Meter	Customer Growth		36	37	37	38	38	39	39	40	41	41	42	43	43	44
3" Meter	Customer Growth		9	9	9	9	9	10	10	10	10	10	10	10	11	11
4" Meter	Customer Growth		7	7	7	7	7	7	8	8	8	8	8	8	8	8
Total			220	223	227	230	234	237	241	244	248	252	255	259	263	267
Residential (Outside Town)																
	Customer Growth		5	5	5	5	5	5	5	5	6	6	6	6	6	6
Aldasoro Residential																
	Customer Growth		68	69	70	71	72	74	75	76	77	78	79	80	82	83
Lawson Hill Residential																
Size/Deed Restricted	Customer Growth		6	6	6	6	6	6	6	7	7	7	7	7	7	7
Volunteer EMT/Fire	Customer Growth		11	11	11	11	12	12	12	12	12	12	13	13	13	13
Other	Customer Growth		127	129	131	133	135	137	139	141	143	145	147	150	152	154
Total			144	146	148	150	153	155	157	160	162	164	167	169	172	174
Lawson Hill Commercial																
5/8" Meter	Customer Growth		6	6	6	6	6	6	7	7	7	7	7	7	7	7
3/4" Meter	Customer Growth		14	14	14	14	15	15	15	15	16	16	16	16	17	17
1" Meter	Customer Growth		6	6	6	6	6	6	7	7	7	7	7	7	7	7
1-1/2" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2" Meter	Customer Growth		3	3	3	3	3	3	3	3	3	3	3	3	4	4
3" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
4" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total			29	29	30	30	30	31	31	32	32	33	33	34	34	35
Hillside Residential																
Size/Deed Restricted	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volunteer EMT/Fire	Customer Growth		8	8	8	8	8	9	9	9	9	9	9	9	9	10
Other	Customer Growth		60	61	62	63	64	65	66	67	68	69	70	71	72	73
Total			68	69	70	71	72	74	75	76	77	78	79	80	82	83
Hillside Commercial																
5/8" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/4" Meter	Customer Growth		2	2	2	2	2	2	2	2	2	2	2	2	2	2
1" Meter	Customer Growth		9	9	9	9	9	10	10	10	10	10	10	10	11	11
1-1/2" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
3" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
4" Meter	Customer Growth		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total			11	11	11	11	12	12	12	12	12	12	13	13	13	13
Total			1,678	1,703	1,729	1,754	1,781	1,808	1,835	1,862	1,890	1,918	1,947	1,976	2,006	2,036

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

Forecast of Billable Water Usage		Escalator	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Telluride Residential																
Size/Deed Restricted	Customer Growth		0 kgal													
Volunteer EMT/Fire	Customer Growth		0 kgal													
Other	Customer Growth		0 kgal													
Total			0 kgal													
Telluride Commercial																
5/8" Meter	Customer Growth		3,559 kgal	3,612 kgal	3,666 kgal	3,721 kgal	3,777 kgal	3,834 kgal	3,891 kgal	3,949 kgal	4,009 kgal	4,069 kgal	4,130 kgal	4,192 kgal	4,255 kgal	4,318 kgal
3/4" Meter	Customer Growth		2,422 kgal	2,458 kgal	2,495 kgal	2,532 kgal	2,570 kgal	2,609 kgal	2,648 kgal	2,688 kgal	2,728 kgal	2,769 kgal	2,811 kgal	2,853 kgal	2,896 kgal	2,939 kgal
1" Meter	Customer Growth		2,799 kgal	2,841 kgal	2,883 kgal	2,927 kgal	2,970 kgal	3,015 kgal	3,060 kgal	3,106 kgal	3,153 kgal	3,200 kgal	3,248 kgal	3,297 kgal	3,346 kgal	3,396 kgal
1-1/2" Meter	Customer Growth		5,313 kgal	5,392 kgal	5,473 kgal	5,555 kgal	5,639 kgal	5,723 kgal	5,809 kgal	5,896 kgal	5,985 kgal	6,074 kgal	6,165 kgal	6,258 kgal	6,352 kgal	6,447 kgal
2" Meter	Customer Growth		8,883 kgal	9,016 kgal	9,151 kgal	9,289 kgal	9,428 kgal	9,569 kgal	9,713 kgal	9,859 kgal	10,007 kgal	10,157 kgal	10,309 kgal	10,464 kgal	10,621 kgal	10,780 kgal
3" Meter	Customer Growth		4,664 kgal	4,734 kgal	4,805 kgal	4,877 kgal	4,950 kgal	5,024 kgal	5,099 kgal	5,176 kgal	5,253 kgal	5,332 kgal	5,412 kgal	5,493 kgal	5,576 kgal	5,659 kgal
4" Meter	Customer Growth		1,840 kgal	1,868 kgal	1,896 kgal	1,924 kgal	1,953 kgal	1,982 kgal	2,012 kgal	2,042 kgal	2,073 kgal	2,104 kgal	2,136 kgal	2,168 kgal	2,200 kgal	2,233 kgal
Total			29,478 kgal	29,920 kgal	30,369 kgal	30,825 kgal	31,287 kgal	31,756 kgal	32,233 kgal	32,716 kgal	33,207 kgal	33,705 kgal	34,211 kgal	34,724 kgal	35,245 kgal	35,773 kgal
Residential (Outside Town)																
	Customer Growth		0 kgal													
Aldasoro Residential																
	Customer Growth		0 kgal													
Lawson Hill Residential																
Size/Deed Restricted	Customer Growth		0 kgal													
Volunteer EMT/Fire	Customer Growth		0 kgal													
Other	Customer Growth		0 kgal													
Total			0 kgal													
Lawson Hill Commercial																
5/8" Meter	Customer Growth		0 kgal													
3/4" Meter	Customer Growth		1,061 kgal	1,076 kgal	1,093 kgal	1,109 kgal	1,126 kgal	1,142 kgal	1,160 kgal	1,177 kgal	1,195 kgal	1,213 kgal	1,231 kgal	1,249 kgal	1,268 kgal	1,287 kgal
1" Meter	Customer Growth		7 kgal	8 kgal												
1-1/2" Meter	Customer Growth		0 kgal													
2" Meter	Customer Growth		844 kgal	857 kgal	869 kgal	882 kgal	896 kgal	909 kgal	923 kgal	937 kgal	951 kgal	965 kgal	979 kgal	994 kgal	1,009 kgal	1,024 kgal
3" Meter	Customer Growth		0 kgal													
4" Meter	Customer Growth		0 kgal													
Total			1,911 kgal	1,940 kgal	1,969 kgal	1,999 kgal	2,029 kgal	2,059 kgal	2,090 kgal	2,121 kgal	2,153 kgal	2,185 kgal	2,218 kgal	2,251 kgal	2,285 kgal	2,320 kgal
Hillside Residential																
Size/Deed Restricted	Customer Growth		0 kgal													
Volunteer EMT/Fire	Customer Growth		0 kgal													
Other	Customer Growth		0 kgal													
Total			0 kgal													
Hillside Commercial																
5/8" Meter	Customer Growth		0 kgal													
3/4" Meter	Customer Growth		84 kgal	85 kgal	87 kgal	88 kgal	89 kgal	91 kgal	92 kgal	93 kgal	95 kgal	96 kgal	98 kgal	99 kgal	101 kgal	102 kgal
1" Meter	Customer Growth		993 kgal	1,008 kgal	1,023 kgal	1,039 kgal	1,054 kgal	1,070 kgal	1,086 kgal	1,102 kgal	1,119 kgal	1,136 kgal	1,153 kgal	1,170 kgal	1,188 kgal	1,205 kgal
1-1/2" Meter	Customer Growth		0 kgal													
2" Meter	Customer Growth		0 kgal													
3" Meter	Customer Growth		0 kgal													
4" Meter	Customer Growth		0 kgal													
Total			1,077 kgal	1,094 kgal	1,110 kgal	1,127 kgal	1,143 kgal	1,161 kgal	1,178 kgal	1,196 kgal	1,214 kgal	1,232 kgal	1,250 kgal	1,269 kgal	1,288 kgal	1,307 kgal
Total			32,467 kgal	32,954 kgal	33,448 kgal	33,950 kgal	34,459 kgal	34,976 kgal	35,501 kgal	36,033 kgal	36,574 kgal	37,122 kgal	37,679 kgal	38,244 kgal	38,818 kgal	39,400 kgal

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

Forecast of Wastewater Flows		Escalator	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Telluride Residential																
Size/Deed Restricted	Customer Growth		1,274 kgal	1,293 kgal	1,313 kgal	1,333 kgal	1,353 kgal	1,373 kgal	1,393 kgal	1,414 kgal	1,436 kgal	1,457 kgal	1,479 kgal	1,501 kgal	1,524 kgal	1,546 kgal
Volunteer EMT/Fire	Customer Growth		2,330 kgal	2,365 kgal	2,401 kgal	2,437 kgal	2,473 kgal	2,511 kgal	2,548 kgal	2,586 kgal	2,625 kgal	2,665 kgal	2,705 kgal	2,745 kgal	2,786 kgal	2,828 kgal
Other	Customer Growth		61,171 kgal	62,089 kgal	63,020 kgal	63,965 kgal	64,925 kgal	65,899 kgal	66,887 kgal	67,890 kgal	68,909 kgal	69,942 kgal	70,991 kgal	72,056 kgal	73,137 kgal	74,234 kgal
Total			64,776 kgal	65,747 kgal	66,734 kgal	67,735 kgal	68,751 kgal	69,782 kgal	70,829 kgal	71,891 kgal	72,969 kgal	74,064 kgal	75,175 kgal	76,303 kgal	77,447 kgal	78,609 kgal
Telluride Commercial																
5/8" Meter	Customer Growth		8,176 kgal	8,299 kgal	8,424 kgal	8,550 kgal	8,678 kgal	8,808 kgal	8,940 kgal	9,075 kgal	9,211 kgal	9,349 kgal	9,489 kgal	9,631 kgal	9,776 kgal	9,922 kgal
3/4" Meter	Customer Growth		6,233 kgal	6,326 kgal	6,421 kgal	6,518 kgal	6,615 kgal	6,715 kgal	6,815 kgal	6,918 kgal	7,021 kgal	7,127 kgal	7,234 kgal	7,342 kgal	7,452 kgal	7,564 kgal
1" Meter	Customer Growth		8,527 kgal	8,655 kgal	8,785 kgal	8,917 kgal	9,051 kgal	9,186 kgal	9,324 kgal	9,464 kgal	9,606 kgal	9,750 kgal	9,896 kgal	10,045 kgal	10,196 kgal	10,348 kgal
1-1/2" Meter	Customer Growth		16,310 kgal	16,555 kgal	16,803 kgal	17,055 kgal	17,311 kgal	17,570 kgal	17,834 kgal	18,102 kgal	18,373 kgal	18,649 kgal	18,928 kgal	19,212 kgal	19,501 kgal	19,793 kgal
2" Meter	Customer Growth		26,903 kgal	27,306 kgal	27,716 kgal	28,131 kgal	28,553 kgal	28,982 kgal	29,416 kgal	29,858 kgal	30,305 kgal	30,760 kgal	31,221 kgal	31,690 kgal	32,165 kgal	32,648 kgal
3" Meter	Customer Growth		12,541 kgal	12,729 kgal	12,920 kgal	13,114 kgal	13,311 kgal	13,510 kgal	13,713 kgal	13,919 kgal	14,128 kgal	14,339 kgal	14,555 kgal	14,773 kgal	14,994 kgal	15,219 kgal
4" Meter	Customer Growth		7,950 kgal	8,070 kgal	8,191 kgal	8,314 kgal	8,438 kgal	8,565 kgal	8,693 kgal	8,824 kgal	8,956 kgal	9,090 kgal	9,227 kgal	9,365 kgal	9,506 kgal	9,648 kgal
Total			86,641 kgal	87,940 kgal	89,259 kgal	90,598 kgal	91,957 kgal	93,337 kgal	94,737 kgal	96,158 kgal	97,600 kgal	99,064 kgal	100,550 kgal	102,058 kgal	103,589 kgal	105,143 kgal
Residential (Outside Town)																
	Customer Growth		437 kgal	443 kgal	450 kgal	457 kgal	463 kgal	470 kgal	477 kgal	485 kgal	492 kgal	499 kgal	507 kgal	514 kgal	522 kgal	530 kgal
Aldasoro Residential																
	Customer Growth		3,898 kgal	3,957 kgal	4,016 kgal	4,076 kgal	4,137 kgal	4,199 kgal	4,262 kgal	4,326 kgal	4,391 kgal	4,457 kgal	4,524 kgal	4,592 kgal	4,661 kgal	4,731 kgal
Lawson Hill Residential																
Size/Deed Restricted	Customer Growth		247 kgal	251 kgal	254 kgal	258 kgal	262 kgal	266 kgal	270 kgal	274 kgal	278 kgal	282 kgal	287 kgal	291 kgal	295 kgal	300 kgal
Volunteer EMT/Fire	Customer Growth		574 kgal	582 kgal	591 kgal	600 kgal	609 kgal	618 kgal	627 kgal	637 kgal	646 kgal	656 kgal	666 kgal	676 kgal	686 kgal	696 kgal
Other	Customer Growth		7,551 kgal	7,665 kgal	7,780 kgal	7,896 kgal	8,015 kgal	8,135 kgal	8,257 kgal	8,381 kgal	8,507 kgal	8,634 kgal	8,764 kgal	8,895 kgal	9,029 kgal	9,164 kgal
Total			8,372 kgal	8,498 kgal	8,625 kgal	8,754 kgal	8,886 kgal	9,019 kgal	9,154 kgal	9,292 kgal	9,431 kgal	9,572 kgal	9,716 kgal	9,862 kgal	10,010 kgal	10,160 kgal
Lawson Hill Commercial																
5/8" Meter	Customer Growth		75 kgal	76 kgal	78 kgal	79 kgal	80 kgal	81 kgal	82 kgal	84 kgal	85 kgal	86 kgal	87 kgal	89 kgal	90 kgal	91 kgal
3/4" Meter	Customer Growth		2,596 kgal	2,635 kgal	2,674 kgal	2,714 kgal	2,755 kgal	2,796 kgal	2,838 kgal	2,881 kgal	2,924 kgal	2,968 kgal	3,013 kgal	3,058 kgal	3,104 kgal	3,150 kgal
1" Meter	Customer Growth		462 kgal	469 kgal	476 kgal	483 kgal	491 kgal	498 kgal	506 kgal	513 kgal	521 kgal	529 kgal	537 kgal	545 kgal	553 kgal	561 kgal
1-1/2" Meter	Customer Growth		0 kgal													
2" Meter	Customer Growth		2,376 kgal	2,412 kgal	2,448 kgal	2,485 kgal	2,522 kgal	2,560 kgal	2,598 kgal	2,637 kgal	2,677 kgal	2,717 kgal	2,758 kgal	2,799 kgal	2,841 kgal	2,884 kgal
3" Meter	Customer Growth		0 kgal													
4" Meter	Customer Growth		0 kgal													
Total			5,510 kgal	5,592 kgal	5,676 kgal	5,761 kgal	5,848 kgal	5,935 kgal	6,024 kgal	6,115 kgal	6,206 kgal	6,300 kgal	6,394 kgal	6,490 kgal	6,587 kgal	6,686 kgal
Hillside Residential																
Size/Deed Restricted	Customer Growth		0 kgal													
Volunteer EMT/Fire	Customer Growth		236 kgal	240 kgal	244 kgal	247 kgal	251 kgal	255 kgal	258 kgal	262 kgal	266 kgal	270 kgal	274 kgal	278 kgal	283 kgal	287 kgal
Other	Customer Growth		3,030 kgal	3,075 kgal	3,121 kgal	3,168 kgal	3,215 kgal	3,264 kgal	3,313 kgal	3,362 kgal	3,413 kgal	3,464 kgal	3,516 kgal	3,569 kgal	3,622 kgal	3,677 kgal
Total			3,266 kgal	3,315 kgal	3,365 kgal	3,415 kgal	3,466 kgal	3,518 kgal	3,571 kgal	3,625 kgal	3,679 kgal	3,734 kgal	3,790 kgal	3,847 kgal	3,905 kgal	3,963 kgal
Hillside Commercial																
5/8" Meter	Customer Growth		0 kgal													
3/4" Meter	Customer Growth		295 kgal	300 kgal	304 kgal	309 kgal	313 kgal	318 kgal	323 kgal	328 kgal	332 kgal	337 kgal	343 kgal	348 kgal	353 kgal	358 kgal
1" Meter	Customer Growth		2,635 kgal	2,675 kgal	2,715 kgal	2,755 kgal	2,797 kgal	2,839 kgal	2,881 kgal	2,925 kgal	2,968 kgal	3,013 kgal	3,058 kgal	3,104 kgal	3,151 kgal	3,198 kgal
1-1/2" Meter	Customer Growth		0 kgal													
2" Meter	Customer Growth		0 kgal													
3" Meter	Customer Growth		0 kgal													
4" Meter	Customer Growth		0 kgal													
Total			2,930 kgal	2,974 kgal	3,019 kgal	3,064 kgal	3,110 kgal	3,157 kgal	3,204 kgal	3,252 kgal	3,301 kgal	3,350 kgal	3,401 kgal	3,452 kgal	3,503 kgal	3,556 kgal
Total			175,829 kgal	178,466 kgal	181,143 kgal	183,861 kgal	186,618 kgal	189,418 kgal	192,259 kgal	195,143 kgal	198,070 kgal	201,041 kgal	204,057 kgal	207,118 kgal	210,224 kgal	213,378 kgal

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

Forecast of BOD Loadings	Average BOD Concentration	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Telluride Residential															
Size/Deed Restricted	255.0 mg/L	2,710 ppd	2,751 ppd	2,792 ppd	2,834 ppd	2,876 ppd	2,920 ppd	2,963 ppd	3,008 ppd	3,053 ppd	3,099 ppd	3,145 ppd	3,192 ppd	3,240 ppd	3,289 ppd
Volunteer EMT/Fire	255.0 mg/L	4,956 ppd	5,030 ppd	5,106 ppd	5,183 ppd	5,260 ppd	5,339 ppd	5,419 ppd	5,501 ppd	5,583 ppd	5,667 ppd	5,752 ppd	5,838 ppd	5,926 ppd	6,015 ppd
Other	255.0 mg/L	130,092 ppd	132,044 ppd	134,024 ppd	136,035 ppd	138,075 ppd	140,146 ppd	142,249 ppd	144,382 ppd	146,548 ppd	148,746 ppd	150,978 ppd	153,242 ppd	155,541 ppd	157,874 ppd
Total		137,759 ppd	139,825 ppd	141,922 ppd	144,051 ppd	146,212 ppd	148,405 ppd	150,631 ppd	152,891 ppd	155,184 ppd	157,512 ppd	159,875 ppd	162,273 ppd	164,707 ppd	167,177 ppd
Telluride Commercial															
5/8" Meter	292.8 mg/L	19,969 ppd	20,268 ppd	20,572 ppd	20,881 ppd	21,194 ppd	21,512 ppd	21,835 ppd	22,162 ppd	22,495 ppd	22,832 ppd	23,175 ppd	23,522 ppd	23,875 ppd	24,233 ppd
3/4" Meter	292.8 mg/L	15,222 ppd	15,451 ppd	15,682 ppd	15,918 ppd	16,156 ppd	16,399 ppd	16,645 ppd	16,894 ppd	17,148 ppd	17,405 ppd	17,666 ppd	17,931 ppd	18,200 ppd	18,473 ppd
1" Meter	292.8 mg/L	20,826 ppd	21,139 ppd	21,456 ppd	21,778 ppd	22,104 ppd	22,436 ppd	22,772 ppd	23,114 ppd	23,461 ppd	23,813 ppd	24,170 ppd	24,532 ppd	24,900 ppd	25,274 ppd
1-1/2" Meter	292.8 mg/L	39,833 ppd	40,431 ppd	41,037 ppd	41,653 ppd	42,278 ppd	42,912 ppd	43,555 ppd	44,209 ppd	44,872 ppd	45,545 ppd	46,228 ppd	46,922 ppd	47,625 ppd	48,340 ppd
2" Meter	292.8 mg/L	65,703 ppd	66,689 ppd	67,689 ppd	68,704 ppd	69,735 ppd	70,781 ppd	71,843 ppd	72,920 ppd	74,014 ppd	75,124 ppd	76,251 ppd	77,395 ppd	78,556 ppd	79,734 ppd
3" Meter	292.8 mg/L	30,629 ppd	31,088 ppd	31,555 ppd	32,028 ppd	32,508 ppd	32,996 ppd	33,491 ppd	33,993 ppd	34,503 ppd	35,021 ppd	35,546 ppd	36,079 ppd	36,620 ppd	37,170 ppd
4" Meter	292.8 mg/L	19,417 ppd	19,708 ppd	20,004 ppd	20,304 ppd	20,608 ppd	20,918 ppd	21,231 ppd	21,550 ppd	21,873 ppd	22,201 ppd	22,534 ppd	22,872 ppd	23,215 ppd	23,563 ppd
Total		211,600 ppd	214,774 ppd	217,995 ppd	221,265 ppd	224,584 ppd	227,953 ppd	231,372 ppd	234,843 ppd	238,365 ppd	241,941 ppd	245,570 ppd	249,254 ppd	252,992 ppd	256,787 ppd
Residential (Outside Town)															
	255.0 mg/L	929 ppd	943 ppd	957 ppd	971 ppd	986 ppd	1,000 ppd	1,015 ppd	1,031 ppd	1,046 ppd	1,062 ppd	1,078 ppd	1,094 ppd	1,110 ppd	1,127 ppd
Aldasoro Residential															
	255.0 mg/L	8,290 ppd	8,415 ppd	8,541 ppd	8,669 ppd	8,799 ppd	8,931 ppd	9,065 ppd	9,201 ppd	9,339 ppd	9,479 ppd	9,621 ppd	9,765 ppd	9,912 ppd	10,061 ppd
Lawson Hill Residential															
Size/Deed Restricted	255.0 mg/L	525 ppd	533 ppd	541 ppd	549 ppd	557 ppd	566 ppd	574 ppd	583 ppd	592 ppd	600 ppd	609 ppd	619 ppd	628 ppd	637 ppd
Volunteer EMT/Fire	255.0 mg/L	1,220 ppd	1,238 ppd	1,257 ppd	1,276 ppd	1,295 ppd	1,314 ppd	1,334 ppd	1,354 ppd	1,374 ppd	1,395 ppd	1,416 ppd	1,437 ppd	1,459 ppd	1,481 ppd
Other	255.0 mg/L	16,059 ppd	16,300 ppd	16,545 ppd	16,793 ppd	17,045 ppd	17,301 ppd	17,560 ppd	17,823 ppd	18,091 ppd	18,362 ppd	18,638 ppd	18,917 ppd	19,201 ppd	19,489 ppd
Total		17,805 ppd	18,072 ppd	18,343 ppd	18,618 ppd	18,897 ppd	19,181 ppd	19,468 ppd	19,760 ppd	20,057 ppd	20,358 ppd	20,663 ppd	20,973 ppd	21,288 ppd	21,607 ppd
Lawson Hill Commercial															
5/8" Meter	292.8 mg/L	184 ppd	187 ppd	189 ppd	192 ppd	195 ppd	198 ppd	201 ppd	204 ppd	207 ppd	210 ppd	213 ppd	217 ppd	220 ppd	223 ppd
3/4" Meter	292.8 mg/L	6,340 ppd	6,435 ppd	6,531 ppd	6,629 ppd	6,729 ppd	6,830 ppd	6,932 ppd	7,036 ppd	7,142 ppd	7,249 ppd	7,357 ppd	7,468 ppd	7,580 ppd	7,693 ppd
1" Meter	292.8 mg/L	1,129 ppd	1,146 ppd	1,163 ppd	1,181 ppd	1,198 ppd	1,216 ppd	1,235 ppd	1,253 ppd	1,272 ppd	1,291 ppd	1,310 ppd	1,330 ppd	1,350 ppd	1,370 ppd
1-1/2" Meter	292.8 mg/L	0 ppd													
2" Meter	292.8 mg/L	5,803 ppd	5,890 ppd	5,979 ppd	6,068 ppd	6,159 ppd	6,252 ppd	6,345 ppd	6,441 ppd	6,537 ppd	6,635 ppd	6,735 ppd	6,836 ppd	6,938 ppd	7,042 ppd
3" Meter	292.8 mg/L	0 ppd													
4" Meter	292.8 mg/L	0 ppd													
Total		13,456 ppd	13,658 ppd	13,862 ppd	14,070 ppd	14,281 ppd	14,496 ppd	14,713 ppd	14,934 ppd	15,158 ppd	15,385 ppd	15,616 ppd	15,850 ppd	16,088 ppd	16,329 ppd
Hillside Residential															
Size/Deed Restricted	255.0 mg/L	0 ppd													
Volunteer EMT/Fire	255.0 mg/L	503 ppd	510 ppd	518 ppd	526 ppd	534 ppd	542 ppd	550 ppd	558 ppd	566 ppd	575 ppd	583 ppd	592 ppd	601 ppd	610 ppd
Other	255.0 mg/L	6,443 ppd	6,540 ppd	6,638 ppd	6,737 ppd	6,838 ppd	6,941 ppd	7,045 ppd	7,151 ppd	7,258 ppd	7,367 ppd	7,477 ppd	7,589 ppd	7,703 ppd	7,819 ppd
Total		6,946 ppd	7,050 ppd	7,156 ppd	7,263 ppd	7,372 ppd	7,483 ppd	7,595 ppd	7,709 ppd	7,824 ppd	7,942 ppd	8,061 ppd	8,182 ppd	8,304 ppd	8,429 ppd
Hillside Commercial															
5/8" Meter	292.8 mg/L	0 ppd													
3/4" Meter	292.8 mg/L	721 ppd	732 ppd	743 ppd	754 ppd	765 ppd	776 ppd	788 ppd	800 ppd	812 ppd	824 ppd	836 ppd	849 ppd	862 ppd	875 ppd
1" Meter	292.8 mg/L	6,436 ppd	6,532 ppd	6,630 ppd	6,729 ppd	6,830 ppd	6,933 ppd	7,037 ppd	7,142 ppd	7,250 ppd	7,358 ppd	7,469 ppd	7,581 ppd	7,694 ppd	7,810 ppd
1-1/2" Meter	292.8 mg/L	0 ppd													
2" Meter	292.8 mg/L	0 ppd													
3" Meter	292.8 mg/L	0 ppd													
4" Meter	292.8 mg/L	0 ppd													
Total		7,156 ppd	7,264 ppd	7,373 ppd	7,483 ppd	7,595 ppd	7,709 ppd	7,825 ppd	7,942 ppd	8,062 ppd	8,182 ppd	8,305 ppd	8,430 ppd	8,556 ppd	8,685 ppd
Total		403,940 ppd	409,999 ppd	416,149 ppd	422,391 ppd	428,727 ppd	435,158 ppd	441,685 ppd	448,310 ppd	455,035 ppd	461,860 ppd	468,788 ppd	475,820 ppd	482,957 ppd	490,202 ppd

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Statistics Forecast

Bimonthly Rate Schedule	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Inside Telluride														
Residential Base Rates														
Size/Deed-Restricted	\$43.42	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59	\$45.59
Volunteer EMT/Fire	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other	\$58.17	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08
Commercial Base Rates														
5/8" Meter (Includes 8 kgal)	\$58.17	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08	\$61.08
3/4" Meter (Includes 12 kgal)	\$87.09	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44	\$91.44
1" Meter (Includes 16 kgal)	\$116.22	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03	\$122.03
1-1/2" Meter (Includes 32 kgal)	\$232.35	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97	\$243.97
2" Meter (Includes 48 kgal)	\$348.58	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01	\$366.01
3" Meter (Includes 72 kgal)	\$522.86	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00	\$549.00
4" Meter (Includes 96 kgal)	\$697.16	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02	\$732.02
Volume Rates														
Rate per kgal Above Base Volume	\$6.54	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87	\$6.87
Outside Telluride														
Residential Base Rates														
Size/Deed-Restricted	\$54.26	\$56.97	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99	\$56.99
Volunteer EMT/Fire	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other	\$72.71	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35
Commercial Base Rates														
5/8" Meter	\$72.71	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35	\$76.35
3/4" Meter	\$108.86	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30	\$114.30
1" Meter	\$145.29	\$152.55	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54	\$152.54
1-1/2" Meter	\$298.75	\$313.69	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96	\$304.96
2" Meter	\$435.72	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51	\$457.51
3" Meter	\$672.24	\$705.85	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25	\$686.25
4" Meter	\$896.34	\$941.16	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03	\$915.03
Volume Rates														
Rate per kgal Above Base Volume	\$8.17	\$8.58	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59	\$8.59

Revenue @ Adopted Rates	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Telluride Residential	\$ 367,716	\$ 391,902	\$ 397,781	\$ 403,747	\$ 409,804	\$ 415,951	\$ 422,190	\$ 428,523	\$ 434,951	\$ 441,475	\$ 448,097	\$ 454,818	\$ 461,641	\$ 468,565
Telluride Commercial	444,022	473,306	480,406	487,612	494,926	502,350	509,886	517,534	525,297	533,176	541,174	549,292	557,531	565,894
Residential (Outside Town)	2,158	2,300	2,334	2,370	2,405	2,441	2,478	2,515	2,553	2,591	2,630	2,669	2,709	2,750
Aldasoro Residential	29,780	31,740	32,216	32,699	33,190	33,687	34,193	34,706	35,226	35,755	36,291	36,835	37,388	37,949
Lawson Hill Residential	57,320	61,092	62,010	62,940	63,884	64,842	65,815	66,802	67,804	68,821	69,853	70,901	71,965	73,044
Lawson Hill Commercial	40,185	42,830	43,492	44,144	44,806	45,478	46,161	46,853	47,556	48,269	48,993	49,728	50,474	51,231
Hillside Residential	26,327	28,060	28,481	28,908	29,342	29,782	30,228	30,682	31,142	31,609	32,083	32,565	33,053	33,549
Hillside Commercial	17,856	19,031	19,327	19,617	19,912	20,210	20,513	20,821	21,133	21,450	21,772	22,099	22,430	22,767
Total	\$ 985,364	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749

Town of Telluride
Utility Rate Study: Wastewater Utility
Operating Revenue and Expenditure Forecast

		Escalation	Actuals	Budget	Budget	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
			2016	2017	2018												
Operating Revenues																	
Account #	Rate Revenues																
52-30-310	SEWER SERVICES	[Calculated]	\$ 928,215	\$ 985,364	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Rate Revenue			\$ 928,215	\$ 985,364	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
				6.16%	6.59%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Non-Rate Revenues																	
52-34-100	TAP FEES	No Escalation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52-36-900	MISCELLANEOUS	No Escalation	43,999	42,052	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
52-30-345	TOWN OF MT VILLAGE O&M	No Escalation	351,190	437,440	404,794	419,028	433,823	449,204	465,197	481,827	499,123	517,114	535,830	555,304	575,568	596,659	618,611
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	[Extra]	No Escalation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-Rate Revenues			\$ 395,189	\$ 479,492	\$ 444,794	\$ 459,028	\$ 473,823	\$ 489,204	\$ 505,197	\$ 521,827	\$ 539,123	\$ 557,114	\$ 575,830	\$ 595,304	\$ 615,568	\$ 636,659	\$ 658,611
				-7.24%	-3.22%	3.20%	3.22%	3.25%	3.27%	3.29%	3.31%	3.34%	3.36%	3.38%	3.40%	3.43%	3.45%
TOTAL OPERATING REVENUES			\$ 1,323,404	\$ 1,464,856	\$ 1,495,056	\$ 1,525,075	\$ 1,555,860	\$ 1,587,472	\$ 1,619,938	\$ 1,653,290	\$ 1,687,558	\$ 1,722,775	\$ 1,758,977	\$ 1,796,198	\$ 1,834,476	\$ 1,873,849	\$ 1,914,360

		Escalation	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Expenses																	
Account #	Treatment Facility Expenses																
52-50-110	SALARIES & WAGES	Labor Cost Inflation	\$ 189,081	\$ 220,705	\$ 248,100	\$ 260,505	\$ 273,530	\$ 287,207	\$ 301,567	\$ 316,645	\$ 332,478	\$ 349,102	\$ 366,557	\$ 384,885	\$ 404,129	\$ 424,335	\$ 445,552
52-50-111	OVERTIME HOURS	Labor Cost Inflation	911	3,000	3,000	3,150	3,308	3,473	3,647	3,829	4,020	4,221	4,432	4,654	4,887	5,131	5,388
52-50-112	ON CALL TIME	Labor Cost Inflation	20,784	17,840	17,840	18,732	19,669	20,652	21,685	22,769	23,907	25,103	26,358	27,676	29,059	30,512	32,038
52-50-130	EMPLOYEE BENEFITS - FICA	Benefit Cost Inflation	17,588	30,180	22,360	23,478	24,652	25,884	27,179	28,538	29,965	31,463	33,036	34,688	36,422	38,243	40,155
52-50-133	EMPLOYEE BENEFITS - HEALTH INS	Benefit Cost Inflation	38,069	34,500	48,200	50,610	53,141	55,798	58,587	61,517	64,593	67,822	71,213	74,774	78,513	82,438	86,560
52-50-134	EMPLOYEE BENEFITS-WORKERS COM	Benefit Cost Inflation	8,584	6,720	10,640	11,172	11,731	12,317	12,933	13,580	14,259	14,972	15,720	16,506	17,331	18,198	19,108
52-50-137	EMPLOYEE BENEFITS-UNEMPLOYMENT	Benefit Cost Inflation	690	670	880	924	970	1,019	1,070	1,123	1,179	1,238	1,300	1,365	1,433	1,505	1,580
52-50-138	EMPLOYEE BENEFITS - HOUS ALLOW	Benefit Cost Inflation	33,851	32,300	32,300	33,915	35,611	37,391	39,261	41,224	43,285	45,449	47,722	50,108	52,613	55,244	58,006
52-50-138	EMPLOYEE BENEFITS-401 PLAN	Benefit Cost Inflation	10,146	10,100	12,480	13,104	13,759	14,447	15,170	15,928	16,724	17,561	18,439	19,361	20,329	21,345	22,412
52-50-139	EMPLOYEE BENEFIT-LT DISABILITY	Benefit Cost Inflation	1,169	1,240	1,550	1,628	1,709	1,794	1,884	1,978	2,077	2,181	2,290	2,405	2,525	2,651	2,784
52-50-210	DUES, BOOKS, PERMITS	General Cost Inflation	7,344	8,500	9,075	9,302	9,534	9,773	10,017	10,268	10,524	10,787	11,057	11,333	11,617	11,907	12,205
52-50-240	OFFICE SUPPLIES	General Cost Inflation	826	2,500	2,500	2,563	2,627	2,692	2,760	2,829	2,902	2,972	3,046	3,122	3,200	3,280	3,362
52-50-241	CHEMICALS/POLY/LIME	General Cost Inflation	21,595	23,000	32,000	32,800	33,620	34,461	35,322	36,205	37,110	38,038	38,989	39,964	40,963	41,987	43,036
52-50-242	UV EQUIPMENT	General Cost Inflation	4,668	5,000	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092	6,244	6,400	6,560	6,724
52-50-243	LAB SUPPLIES	General Cost Inflation	7,394	7,000	19,000	19,475	19,962	20,461	20,972	21,497	22,034	22,585	23,150	23,728	24,320	24,930	25,553
52-50-244	MISC. SUPPLIES	General Cost Inflation	2,702	4,000	4,500	4,613	4,728	4,846	4,967	5,091	5,219	5,349	5,483	5,620	5,760	5,904	6,052
52-50-245	JANITORIAL SUPPLIES	General Cost Inflation	865	500	500	513	525	538	552	566	580	594	609	624	640	656	672
52-50-246	GREASE/OIL/FILTERS	General Cost Inflation	295	1,500	1,500	1,538	1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873	1,920	1,968	2,017
52-50-247	NPDES PERMIT TESTING	General Cost Inflation	19,501	17,000	25,000	25,825	26,286	26,922	27,595	28,295	28,992	29,717	30,460	31,222	32,002	32,802	33,622
52-50-248	EQUIPMENT REPLACEMENT	General Cost Inflation	53,171	27,000	27,000	27,675	28,367	29,076	29,803	30,548	31,312	32,095	32,897	33,719	34,562	35,426	36,312
52-50-249	SLUDGE DISPOSAL PERMIT	General Cost Inflation	8,384	8,500	16,500	16,913	17,335	17,769	18,213	18,668	19,135	19,613	20,104	20,606	21,121	21,649	22,191
52-50-251	BIO-SOLIDS DISPOSAL	General Cost Inflation	186,972	275,000	90,000	92,250	94,556	96,920	99,343	101,827	104,372	106,982	109,656	112,398	115,208	118,088	121,040
52-50-254	EQUIPMENT RENTAL	General Cost Inflation	1,715	1,500	1,500	1,538	1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873	1,920	1,968	2,017
52-50-267	PICK-UP TRUCK MAINT.	Labor Cost Inflation	1,455	6,000	6,000	6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308	9,773	10,262	10,775
52-50-268	SLUDGE TRUCK MAINTENANCE	Labor Cost Inflation	-	250	16,500	17,325	18,191	19,101	20,056	21,059	22,112	23,217	24,378	25,597	26,877	28,221	29,632
52-50-270	GAS HEATING	General Cost Inflation	7,840	10,000	15,000	15,375	15,759	16,153	16,557	16,971	17,395	17,830	18,276	18,733	19,201	19,681	20,173
52-50-272	ELECTRIC POWER	General Cost Inflation	199,922	235,000	313,000	320,825	328,846	337,067	345,493	354,131	362,984	372,059	381,360	390,894	400,666	410,683	420,950
52-50-280	TELEPHONE	General Cost Inflation	9,953	12,000	17,000	17,425	17,861	18,307	18,765	19,234	19,715	20,208	20,713	21,231	21,763	22,305	22,863
52-50-310	PROFESSIONAL SERVICES	Labor Cost Inflation	15,638	24,800	50,300	52,815	55,456	58,229	61,140	64,197	67,407	70,777	74,316	78,032	81,933	86,030	90,332
52-50-330	TRAVEL & TRAINING	General Cost Inflation	3,562	3,500	3,900	3,998	4,097	4,200	4,305	4,412	4,523	4,636	4,752	4,871	4,992	5,117	5,245
52-50-425	REFUSE, RECYCLE, REUSE	General Cost Inflation	1,884	2,000	2,000	2,050	2,101	2,154	2,208	2,263	2,319	2,377	2,437	2,498	2,560	2,624	2,690
52-50-468	UNIFORMS/CLOTHING	General Cost Inflation	525	875	1,050	1,076	1,103	1,131	1,159	1,188	1,218	1,249	1,281	1,311	1,344	1,378	1,412
52-50-490	GAS & OIL	General Cost Inflation	1,253	8,000	20,000	20,500	21,013	21,538	22,076	22,628	23,194	23,774	24,368	24,977	25,602	26,242	26,898
52-50-495	DIESEL GENERATOR	General Cost Inflation	-	4,500	4,500	4,613	4,728	4,846	4,967	5,091	5,219	5,349	5,483	5,620	5,760	5,904	6,052
52-50-910	TRANSFERS TO GEN FUND - ADMIN	General Cost Inflation	125,063	135,710	75,880	77,777	79,721	81,714	83,757	85,851	87,998	90,197	92,452	94,764	97,133	99,561	102,050
Sewer System Expense																	
52-55-110	SALARIES & WAGES	Labor Cost Inflation	32,845	32,850	38,710	40,646	42,678	44,812	47,052	49,405	51,875	54,469	57,192	60,052	63,055	66,207	69,518
52-55-111	OVERTIME HOURS	Labor Cost Inflation															

Town of Telluride
Utility Rate Study: Wastewater Utility
Existing Debt

Existing Debt Service - Summary	Total	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Debt Payments														
Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWTF Loans	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Loans	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Payments	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Existing Debt Service - Revenue Bonds		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
[Extra 1]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra 2]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra 3]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE BONDS														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Use of Debt Reserve for Debt Service		-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Debt Reserve Target on Existing Revenue Bonds		-	-	-	-	-	-	-	-	-	-	-	-	-

Existing Debt Service - PWTF Loans		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
[Extra 1]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra 2]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL PWTF LOANS														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Existing Debt Service - Other Loans		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
[Extra 1]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra 2]														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OTHER LOANS														
Annual Interest Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payment	\$ -	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

2018 Project Costs in Year

ID	Description	Useful Life (Years)	Replacement?	Total	UNESCALATED COSTS													
					2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
	O&M Capital Expenses	50.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52-50-750	IMPROVEMENTS	50.00	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52-50-751	NUTRIENT CONSTRUCTION/ENGINEER	50.00	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52-55-710	STREAM BANK STABILIZATION	50.00	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52-55-750	SYSTEM IMPROVEMENTS	50.00	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Administrative Tasks	50.00	Yes	2,170,000	270,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Biosolids	50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Clean B Pilot Lease	50.00	Yes	28,000	28,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Biosolids Compost - 3XM	50.00	Yes	65,000	65,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dewatering Design	50.00	Yes	175,000	175,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dewatering Construction	50.00	Yes	1,750,000	-	1,750,000	-	-	-	-	-	-	-	-	-	-	-	-
	Aerobic Digester Imp. Design	50.00	Yes	100,000	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-
	Aerobic Digester Imp. Construction	50.00	Yes	900,000	-	-	-	150,000	750,000	-	-	-	-	-	-	-	-	-
	Odor Control Design & Construction	50.00	Yes	1,610,000	160,000	100,000	200,000	350,000	800,000	-	-	-	-	-	-	-	-	-
	ATAD Design/Construction	50.00	Yes	19,800,000	-	-	-	-	-	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Liquid Stream	50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Supplemental O2 Pilot	50.00	Yes	110,000	110,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Electric Supply Line Analysis/Upgrade	50.00	Yes	400,000	-	-	100,000	300,000	-	-	-	-	-	-	-	-	-	-
	Existing Headworks Rehabilitation	50.00	Yes	300,000	150,000	150,000	-	-	-	-	-	-	-	-	-	-	-	-
	Future Headworks Design & Const.	50.00	Yes	1,250,000	-	-	-	-	250,000	1,000,000	-	-	-	-	-	-	-	-
	Primary Clarifier & Pump Strn Design	50.00	Yes	670,000	-	100,000	570,000	-	-	-	-	-	-	-	-	-	-	-
	Primary Clarifier & Pump Strn Const.	50.00	Yes	6,700,000	-	-	-	2,300,000	4,400,000	-	-	-	-	-	-	-	-	-
	Septage Holding Tank Design & Construction	50.00	Yes	250,000	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-
	Ox-Ditch Aeration Imp Design & Construction	50.00	Yes	2,760,000	-	-	-	-	-	-	2,760,000	-	-	-	-	-	-	-
	UV and Filters Design & Construction	50.00	Yes	7,750,000	-	-	-	-	-	-	-	7,750,000	-	-	-	-	-	-
	MBR Design	50.00	Yes	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MBR Construction	50.00	Yes	25,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50.00	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Capital Projects Before Completion Factor			74,288,000	958,000	2,200,000	1,070,000	3,200,000	6,300,000	3,150,000	4,660,000	9,650,000	1,900,000	1,900,000	1,900,000	1,900,000	1,900,000	1,900,000
	Completion Factor Impact			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Capital Projects			\$ 74,288,000	\$ 958,000	\$ 2,200,000	\$ 1,070,000	\$ 3,200,000	\$ 6,300,000	\$ 3,150,000	\$ 4,660,000	\$ 9,650,000	\$ 1,900,000					

Town of Telluride
 Utility Rate Study: Wastewater Utility
 Capital Improvement Program

Annual Escalation: 0.00% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50% 3.50%
 Cumulative Escalation: 0.00% 3.50% 7.12% 10.87% 14.75% 18.77% 22.93% 27.23% 31.68% 36.29% 41.06% 46.00% 51.11%

ID	Description
	O&M Capital Expenses
52-50-750	IMPROVEMENTS
52-50-751	NUTRIENT CONSTRUCTION/ENGINEER
52-55-710	STREAM BANK STABILIZATION
52-55-750	SYSTEM IMPROVEMENTS
	Administrative Tasks
	Biosolids
	Clean B Pilot Lease
	Biosolids Compost - 3XM
	Dewatering Design
	Dewatering Construction
	Aerobic Digester Imp. Design
	Aerobic Digester Imp. Construction
	Odor Control Design & Construction
	ATAD Design/Construction
	Liquid Stream
	Supplemental O2 Pilot
	Electric Supply Line Analysis/Upgrade
	Existing Headworks Rehabilitation
	Future Headworks Design & Const.
	Primary Clarifier & Pump Strn Design
	Primary Clarifier & Pump Strn Const.
	Septage Holding Tank Design & Construction
	Ox-Ditch Aeration Imp Design & Construction
	UV and Filters Design & Construction
	MBR Design
	MBR Construction
	Total Capital Projects Before Completion Factor
	Completion Factor Impact
	Total Capital Projects

ESCALATED COSTS													ESCALATED TOTAL
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
270,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	136,290	141,060	145,997	151,107	2,997,968
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
28,000	-	-	-	-	-	-	-	-	-	-	-	-	28,000
65,000	-	-	-	-	-	-	-	-	-	-	-	-	65,000
175,000	-	-	-	-	-	-	-	-	-	-	-	-	175,000
-	1,811,250	-	-	-	-	-	-	-	-	-	-	-	1,811,250
-	-	107,123	-	-	-	-	-	-	-	-	-	-	107,123
-	-	-	166,308	860,642	-	-	-	-	-	-	-	-	1,026,950
160,000	103,500	214,245	388,051	918,018	-	-	-	-	-	-	-	-	1,783,815
-	-	-	-	-	2,137,835	2,212,660	2,290,103	2,370,256	2,453,215	2,539,078	2,627,945	2,719,924	28,095,415
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
110,000	-	-	-	-	-	-	-	-	-	-	-	-	110,000
-	-	107,123	332,615	-	-	-	-	-	-	-	-	-	439,738
150,000	155,250	-	-	-	-	-	-	-	-	-	-	-	305,250
-	-	-	-	286,881	1,187,686	-	-	-	-	-	-	-	1,474,567
-	103,500	610,598	-	-	-	-	-	-	-	-	-	-	714,098
-	-	-	2,550,051	5,049,101	-	-	-	-	-	-	-	-	7,599,152
-	-	-	-	-	296,922	-	-	-	-	-	-	-	296,922
-	-	-	-	-	-	3,392,745	-	-	-	-	-	-	3,392,745
-	-	-	-	-	-	-	9,860,164	-	-	-	-	-	9,860,164
-	-	-	-	-	-	-	-	-	-	-	-	-	4,486,689
-	-	-	-	-	-	-	-	-	-	-	-	-	46,437,230
\$ 958,000	\$ 2,277,000	\$ 1,146,211	\$ 3,547,897	\$ 7,229,395	\$ 3,741,212	\$ 5,728,330	\$ 12,277,495	\$ 2,501,937	\$ 2,589,505	\$ 2,680,138	\$ 2,773,942	\$ 2,871,030	\$ 111,207,075
-	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 958,000	\$ 2,277,000	\$ 1,146,211	\$ 3,547,897	\$ 7,229,395	\$ 3,741,212	\$ 5,728,330	\$ 12,277,495	\$ 2,501,937	\$ 2,589,505	\$ 2,680,138	\$ 2,773,942	\$ 2,871,030	\$ 111,207,075

Town of Telluride
Utility Rate Study: Wastewater Utility
Capital Funding

Check O.K.

Capital Project Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TOTAL CAPITAL EXPENDITURES	\$ 958,000	\$ 2,277,000	\$ 1,146,211	\$ 3,547,897	\$ 7,229,395	\$ 3,741,212	\$ 5,728,330	\$ 12,277,495	\$ 2,501,937	\$ 2,589,505	\$ 2,680,138	\$ 2,773,942	\$ 2,871,030

Capital Financing Plan	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Outside Funding Sources: Grants/CIAC	761,250	240,275	363,681	1,202,959	2,490,125	1,267,855	1,961,892	4,252,593	829,590	858,625	888,677	919,781	951,973
Balance/Remained to be Funded	\$ 196,750	\$ 2,036,725	\$ 782,530	\$ 2,344,938	\$ 4,739,270	\$ 2,473,357	\$ 3,766,438	\$ 8,024,901	\$ 1,672,347	\$ 1,730,880	\$ 1,791,460	\$ 1,854,162	\$ 1,919,057
OTHER FUNDING SOURCES	<i>(Note: Operating transfers in year N are always assumed to be available in year N + 1.)</i>												
Beginning Fund Balances	\$ 1,109,763	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531
Capital Replacement & Improvement F	Yes	-	379,590	402,514	473,472	618,060	692,884	807,451	1,053,001	1,103,039	1,443,537	1,812,648	1,895,867
Tap Fee Revenue Towards Capital	Yes	400,000	406,000	412,090	418,271	424,545	430,914	437,377	443,938	450,597	457,356	464,216	471,180
Interest Earnings	Yes	13,872	16,836	2,475	87,655	69,699	22,554	5,031	94,642	11,156	9,186	7,170	8,713
Minimum Capital Balance?	Yes	(124,258)	(147,028)	(158,491)	(193,970)	(266,264)	(303,676)	(360,959)	(483,734)	(508,753)	(534,648)	(561,450)	(589,189)
Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Proceeds	-	-	6,800,000	-	-	-	9,800,000	-	-	-	-	-	-
TOTAL CAPITAL RESOURCES	\$ 1,399,377	\$ 1,622,693	\$ 7,633,666	\$ 7,726,866	\$ 6,277,350	\$ 2,572,196	\$ 10,976,849	\$ 8,433,666	\$ 1,898,499	\$ 1,769,838	\$ 1,927,081	\$ 2,400,422	\$ 3,134,765
<i>Info: Working Capital Contingency Deficit</i>	-	-	-	-	-	-	-	-	-	-	-	-	-

New Debt Computations	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUE BONDS													
Amount to Fund	\$ -	\$ -	\$ 6,800,000	\$ -	\$ -	\$ -	\$ 9,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	73,518	-	-	-	105,952	-	-	-	-	-	-
Reserve Required	-	-	478,243	-	-	-	689,232	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ 7,351,760	\$ -	\$ -	\$ -	\$ 10,595,184	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 1													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 2													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 3													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Debt Service Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EXISTING DEBT SERVICE													
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW DEBT SERVICE													
Annual Interest Payments	\$ -	\$ -	\$ 367,588	\$ 362,055	\$ 356,246	\$ 350,146	\$ 873,500	\$ 858,802	\$ 843,368	\$ 827,163	\$ 810,147	\$ 792,281	\$ 773,521
Annual Principal Payments	-	-	110,655	116,187	121,997	128,096	293,974	308,673	324,106	340,312	357,327	375,194	393,953
Total Debt Service Payments	\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
Revenue Bond Payments Only	-	-	478,243	478,243	478,243	478,243	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474
TOTAL DEBT SERVICE PAYMENTS	\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
Total Interest Payments	-	-	367,588	362,055	356,246	350,146	873,500	858,802	843,368	827,163	810,147	792,281	773,521
Total Principal Payments	-	-	110,655	116,187	121,997	128,096	293,974	308,673	324,106	340,312	357,327	375,194	393,953
Total Revenue Bond Payments Only	-	-	478,243	478,243	478,243	478,243	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474
<i>Use of Debt Reserve for Debt Service</i>	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Telluride
Utility Rate Study: Wastewater Utility
Revenue Requirement Tests

Cash Flow Test	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUES													
Rate Revenue	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
Tap Fee Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
O&M Payments from Mountain Village	404,794	419,028	433,823	449,204	465,197	481,827	499,123	517,114	535,830	555,304	575,568	596,659	618,611
Debt Service Payments from Mountain Village	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Non-Rate Revenue	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Interest Earnings: Operating & Debt Reserve Funds	1,529	1,384	4,743	10,884	12,768	15,898	19,600	25,010	23,318	21,723	23,012	23,963	21,276
<i>Total Revenue</i>	\$ 1,496,585	\$ 1,526,458	\$ 1,560,604	\$ 1,598,356	\$ 1,632,707	\$ 1,669,188	\$ 1,707,158	\$ 1,747,785	\$ 1,782,295	\$ 1,817,921	\$ 1,857,487	\$ 1,897,812	\$ 1,935,635
EXPENSES													
Cash Operating Expenses	\$ 1,488,200	\$ 1,538,927	\$ 1,591,599	\$ 1,646,297	\$ 1,703,108	\$ 1,762,122	\$ 1,823,434	\$ 1,887,140	\$ 1,953,346	\$ 2,022,158	\$ 2,093,690	\$ 2,168,058	\$ 2,245,387
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	478,243	478,243	478,243	478,243	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474
Capital Replacement & Improvement Funding	-	-	379,590	402,514	473,472	618,060	692,884	807,451	1,053,001	1,103,039	1,443,537	1,812,648	1,895,867
Additions Required to Meet Min. Debt Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions Required to Meet Min. Operating Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Total Expenses</i>	\$ 1,488,200	\$ 1,538,927	\$ 2,449,431	\$ 2,527,054	\$ 2,654,823	\$ 2,858,425	\$ 3,683,792	\$ 3,862,066	\$ 4,173,821	\$ 4,292,672	\$ 4,704,701	\$ 5,148,181	\$ 5,308,729
NET CASH FLOW (DEFICIENCY)	\$ 8,385	\$ (12,469)	\$ (888,827)	\$ (928,698)	\$ (1,022,116)	\$ (1,189,237)	\$ (1,976,634)	\$ (2,114,280)	\$ (2,391,526)	\$ (2,474,751)	\$ (2,847,214)	\$ (3,250,369)	\$ (3,373,093)

Coverage Test - with Tap Fees	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLOWABLE REVENUES													
Rate Revenue	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
Other Revenue	444,794	459,028	473,823	489,204	505,197	521,827	539,123	557,114	575,830	595,304	615,568	636,659	658,611
Tap Fee Revenue	400,000	406,000	412,090	418,271	424,545	430,914	437,377	443,938	450,597	457,356	464,216	471,180	478,247
Interest Earnings - All Funds	15,401	18,220	7,218	98,539	82,467	38,452	24,632	119,652	34,474	30,910	30,182	32,676	38,295
<i>Total Revenue</i>	\$ 1,910,457	\$ 1,949,294	\$ 1,975,169	\$ 2,104,282	\$ 2,126,951	\$ 2,122,656	\$ 2,149,567	\$ 2,286,366	\$ 2,244,048	\$ 2,284,463	\$ 2,328,874	\$ 2,377,705	\$ 2,430,902
EXPENSES													
Cash Operating Expenses	\$ 1,488,200	\$ 1,538,927	\$ 1,591,599	\$ 1,646,297	\$ 1,703,108	\$ 1,762,122	\$ 1,823,434	\$ 1,887,140	\$ 1,953,346	\$ 2,022,158	\$ 2,093,690	\$ 2,168,058	\$ 2,245,387
Revenue Bond Debt Service	-	-	478,243	478,243	478,243	478,243	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474	1,167,474
Revenue Bond Coverage Requirement at 1.5	-	-	239,121	239,121	239,121	239,121	583,737	583,737	583,737	583,737	583,737	583,737	583,737
<i>Total Expenses</i>	\$ 1,488,200	\$ 1,538,927	\$ 2,308,963	\$ 2,363,661	\$ 2,420,472	\$ 2,479,486	\$ 3,574,645	\$ 3,638,352	\$ 3,704,558	\$ 3,773,370	\$ 3,844,901	\$ 3,919,270	\$ 3,996,599
Coverage	n/a	n/a	0.80	0.96	0.89	0.75	0.28	0.34	0.25	0.22	0.20	0.18	0.16
COVERAGE SURPLUS (DEFICIENCY)	\$ 422,257	\$ 410,367	\$ (333,794)	\$ (259,379)	\$ (293,521)	\$ (356,830)	\$ (1,425,078)	\$ (1,351,987)	\$ (1,460,510)	\$ (1,488,907)	\$ (1,516,028)	\$ (1,541,565)	\$ (1,565,697)

Maximum Revenue Deficiency	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sufficiency Test Driving the Deficiency	None	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Maximum Revenue Deficiency (Surplus)	\$ (8,385)	\$ 12,469	\$ 888,827	\$ 928,698	\$ 1,022,116	\$ 1,189,237	\$ 1,976,634	\$ 2,114,280	\$ 2,391,526	\$ 2,474,751	\$ 2,847,214	\$ 3,250,369	\$ 3,373,093
less: Incremental Revenue From Prior Rate Increases	-	-	(757,426)	(918,152)	(1,095,658)	(1,291,577)	(1,507,701)	(1,745,995)	(2,008,612)	(2,297,912)	(2,616,483)	(2,967,164)	(3,310,391)
Net Revenue Deficiency (Surplus)	\$ (8,385)	\$ 12,469	\$ 131,401	\$ 10,546	\$ (73,542)	\$ (102,340)	\$ 468,933	\$ 368,285	\$ 382,915	\$ 176,839	\$ 230,731	\$ 283,205	\$ 62,702

Town of Telluride
Utility Rate Study: Wastewater Utility
Revenue Requirement Tests

Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rate Revenue @ Existing Rates	\$ 1,050,262	\$ 1,066,047	\$ 1,082,037	\$ 1,098,268	\$ 1,114,742	\$ 1,131,463	\$ 1,148,435	\$ 1,165,662	\$ 1,183,146	\$ 1,200,894	\$ 1,218,907	\$ 1,237,191	\$ 1,255,749
Revenues from Prior Rate Increases	-	-	757,426	918,152	1,095,658	1,291,577	1,507,701	1,745,995	2,008,612	2,297,912	2,616,483	2,967,164	3,310,391
Rate Revenue Before Rate Increase (incl. previous increases)	1,050,262	1,066,047	1,839,464	2,016,420	2,210,400	2,423,040	2,656,136	2,911,657	3,191,758	3,498,805	3,835,390	4,204,355	4,566,140
Required Annual Rate Increase	0.00%	1.17%	7.14%	0.52%	0.00%	0.00%	17.65%	12.65%	12.00%	5.05%	6.02%	6.74%	1.37%
Number of Months New Rates Will Be In Effect	12	12	12	12	12	12	12	12	12	12	12	12	12
Info: % Increase to Generate Required Revenue	0.00%	1.17%	7.14%	0.52%	0.00%	0.00%	17.65%	12.65%	12.00%	5.05%	6.02%	6.74%	1.37%
Policy Induced Rate Increases	0.00%	70.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.00%	7.00%
ANNUAL RATE INCREASE	0.00%	70.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.00%	7.00%
CUMULATIVE RATE INCREASE	0.00%	70.00%	83.60%	98.29%	114.15%	131.28%	149.79%	169.77%	191.35%	214.66%	239.83%	263.62%	289.07%

Impacts of Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sufficiency Test Driving the Deficiency	None	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash	Cash
Rate Revenues After Rate Increase	\$ 1,050,262	\$ 1,812,279	\$ 1,986,621	\$ 2,177,734	\$ 2,387,231	\$ 2,616,883	\$ 2,868,627	\$ 3,144,589	\$ 3,447,099	\$ 3,778,710	\$ 4,142,222	\$ 4,498,660	\$ 4,885,769
Full Year Rate Revenues After Rate Increase	1,050,262	1,812,279	1,986,621	2,177,734	2,387,231	2,616,883	2,868,627	3,144,589	3,447,099	3,778,710	4,142,222	4,498,660	4,885,769
Partial Year Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Flow After Rate Increase	\$ 8,385	\$ 733,764	\$ 15,756	\$ 150,768	\$ 250,373	\$ 296,183	\$ (256,442)	\$ (135,353)	\$ (127,574)	\$ 103,065	\$ 76,101	\$ 11,100	\$ 256,928
Coverage After Rate Increase: Bonded Debt	n/a	n/a	2.69	3.21	3.55	3.86	1.75	2.04	2.19	2.43	2.71	2.97	3.27
Coverage After Rate Increase: Total Debt	n/a	n/a	2.69	3.21	3.55	3.86	1.75	2.04	2.19	2.43	2.71	2.97	3.27

Debt Financing Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Net Revenue Bond Proceeds: Automatic Calculation	\$ -	\$ -	\$ 6,800,000	\$ -	\$ -	\$ -	\$ 9,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Revenue Bond Proceeds: Override*	\$ -	\$ -	\$ 6,800,000				\$ 9,800,000						
Other Loans 1 Proceeds													
Other Loans 2 Proceeds													
Other Loans 3 Proceeds													

*Model will automatically calculate revenue bond debt if 'Revenue Bond Proceeds: Override' is blank. A zero does not equal a "blank."

Fund Balance Impacts	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ending Fund Balance: Operating Reserve	\$ 110,703	\$ 379,462	\$ 392,449	\$ 543,217	\$ 793,590	\$ 1,089,773	\$ 833,332	\$ 697,979	\$ 570,405	\$ 673,470	\$ 749,570	\$ 534,590	\$ 553,657
Actual Days of Operations & Maintenance	27 days	90 days	90 days	120 days	170 days	226 days	167 days	135 days	107 days	122 days	131 days	90 days	90 days
Minimum Target: Operating Reserve	122,318	379,462	392,449	405,936	419,944	434,496	449,614	465,322	481,647	498,614	516,252	534,590	553,657
Minimum Target: Operating Reserve (in Days of O&M)	30 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days
Ending Fund Balance: Capital Reserve	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531	\$ 2,071,467
Minimum Target: Capital Reserve	124,258	147,028	158,491	193,970	266,264	303,676	360,959	483,734	508,753	534,648	561,450	589,189	617,899
Total Ending Operating and Capital Cash (days)	357 days	137 days	1,698 days	1,357 days	557 days	309 days	1,682 days	308 days	244 days	225 days	252 days	319 days	427 days
Minimum Target	120 days	120 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days

Town of Telluride
Utility Rate Study: Wastewater Utility
Fund Activity

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPERATING RESERVE													
Beginning Balance	\$ 122,318	\$ 110,703	\$ 379,462	\$ 392,449	\$ 543,217	\$ 793,590	\$ 1,089,773	\$ 833,332	\$ 697,979	\$ 570,405	\$ 673,470	\$ 749,570	\$ 534,590
plus: Net Cash Flow after Rate Increase	8,385	733,764	15,756	150,768	250,373	296,183	(256,442)	(135,353)	(127,574)	103,065	76,101	11,100	256,928
less: Transfer of Surplus to Capital Fund	(20,000)	(465,005)	(2,768)	-	-	-	-	-	-	-	-	(226,081)	(237,860)
Ending Balance	\$ 110,703	\$ 379,462	\$ 392,449	\$ 543,217	\$ 793,590	\$ 1,089,773	\$ 833,332	\$ 697,979	\$ 570,405	\$ 673,470	\$ 749,570	\$ 534,590	\$ 553,657
<i>Minimum Target Balance: 30 days</i>	\$ 122,318	\$ 379,462	\$ 392,449	\$ 405,936	\$ 419,944	\$ 434,496	\$ 449,614	\$ 465,322	\$ 481,647	\$ 498,614	\$ 516,252	\$ 534,590	\$ 553,657
<i>Maximum Target Balance: 30 days</i>	\$ 122,318	\$ 379,462	\$ 392,449	\$ 405,936	\$ 419,944	\$ 434,496	\$ 449,614	\$ 465,322	\$ 481,647	\$ 498,614	\$ 516,252	\$ 534,590	\$ 553,657
<i>Actual Days of Cash Achieved</i>	27 days	90 days	90 days	120 days	170 days	226 days	167 days	135 days	107 days	122 days	131 days	90 days	90 days
CAPITAL RESERVE													
Beginning Balance	\$ 1,109,763	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531
plus: Capital Replacement & Improvement Funding	-	-	379,590	402,514	473,472	618,060	692,884	807,451	1,053,001	1,103,039	1,443,537	1,812,648	1,895,867
plus: Transfers from Operating Fund	20,000	465,005	2,768	-	-	-	-	-	-	-	-	226,081	237,860
plus: Capital Grants / Other Resources	761,250	240,275	363,681	1,202,959	2,490,125	1,267,855	1,961,892	4,252,593	829,590	858,625	888,677	919,781	951,973
plus: Tap Fee Revenue Towards Capital	400,000	406,000	412,090	418,271	424,545	430,914	437,377	443,938	450,597	457,356	464,216	471,180	478,247
plus: Revenue Bond Proceeds	-	-	6,800,000	-	-	-	9,800,000	-	-	-	-	-	-
plus: Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	13,872	16,836	2,475	87,655	69,699	22,554	5,031	94,642	11,156	9,186	7,170	8,713	17,019
Total Funding Sources	\$ 2,304,885	\$ 2,475,002	\$ 8,158,606	\$ 9,123,794	\$ 9,033,738	\$ 4,143,726	\$ 13,299,699	\$ 13,169,993	\$ 3,236,842	\$ 3,163,112	\$ 3,377,208	\$ 4,135,473	\$ 4,942,497
less: Capital Expenditures	(958,000)	(2,277,000)	(1,146,211)	(3,547,897)	(7,229,395)	(3,741,212)	(5,728,330)	(12,277,495)	(2,501,937)	(2,589,505)	(2,680,138)	(2,773,942)	(2,871,030)
Ending Capital Fund Balance	\$ 1,346,885	\$ 198,002	\$ 7,012,395	\$ 5,575,897	\$ 1,804,343	\$ 402,515	\$ 7,571,369	\$ 892,499	\$ 734,905	\$ 573,607	\$ 697,070	\$ 1,361,531	\$ 2,071,467
<i>Minimum Target Balance</i>	\$ 124,258	\$ 147,028	\$ 158,491	\$ 193,970	\$ 266,264	\$ 303,676	\$ 360,959	\$ 483,734	\$ 508,753	\$ 534,648	\$ 561,450	\$ 589,189	\$ 617,899
DEBT RESERVE													
Beginning Balance	\$ -	\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
plus: Reserve Funding from Operations	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Reserve Funding from New Debt	-	-	478,243	-	-	-	689,232	-	-	-	-	-	-
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
Ending Balance	\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
<i>Minimum Target Balance</i>	\$ -	\$ -	\$ 478,243	\$ 478,243	\$ 478,243	\$ 478,243	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474	\$ 1,167,474
SUMMARY													
Combined Beginning Balance	\$ 1,232,081	\$ 1,457,588	\$ 577,463	\$ 7,883,087	\$ 6,597,356	\$ 3,076,176	\$ 1,970,530	\$ 9,572,175	\$ 2,757,952	\$ 2,472,784	\$ 2,414,551	\$ 2,614,115	\$ 3,063,595
Plus: Inflows	1,203,507	1,861,880	8,454,602	2,262,167	3,708,215	2,635,566	13,329,975	5,463,272	2,216,770	2,531,272	2,879,701	3,449,503	3,837,894
Less: Outflows	(978,000)	(2,742,005)	(1,148,979)	(3,547,897)	(7,229,395)	(3,741,212)	(5,728,330)	(12,277,495)	(2,501,937)	(2,589,505)	(2,680,138)	(3,000,023)	(3,108,891)
Combined Ending Balance	\$ 1,457,588	\$ 577,463	\$ 7,883,087	\$ 6,597,356	\$ 3,076,176	\$ 1,970,530	\$ 9,572,175	\$ 2,757,952	\$ 2,472,784	\$ 2,414,551	\$ 2,614,115	\$ 3,063,595	\$ 3,792,599
<i>Net Change in Reserves</i>	\$ 225,507	\$ (880,125)	\$ 7,305,623	\$ (1,285,730)	\$ (3,521,180)	\$ (1,105,646)	\$ 7,601,645	\$ (6,814,223)	\$ (285,168)	\$ (58,233)	\$ 199,564	\$ 449,480	\$ 729,004
TOTAL AVAILABLE CASH TEST: DAYS OF O&M													
Operating & Capital Ending Balance	\$ 1,457,588	\$ 577,463	\$ 7,404,844	\$ 6,119,114	\$ 2,597,934	\$ 1,492,288	\$ 8,404,701	\$ 1,590,478	\$ 1,305,310	\$ 1,247,077	\$ 1,446,641	\$ 1,896,121	\$ 2,625,124
Ending Total Days of O&M	357 days	137 days	1,698 days	1,357 days	557 days	309 days	1,682 days	308 days	244 days	225 days	252 days	319 days	427 days
<i>Target: 120 Days of O&M</i>	\$ 489,271	\$ 505,949	\$ 654,082	\$ 676,560	\$ 699,907	\$ 724,160	\$ 749,356	\$ 775,537	\$ 802,745	\$ 831,024	\$ 860,420	\$ 890,983	\$ 922,762

Town of Telluride
Utility Rate Study: Wastewater Utility
Assets

Replacement Cost Year: **2017**

Asset Number	Asset Category	Asset Description	Purchase Date	Original Cost	Useful Life	Annual Original		ENR Multiplier	Replacement Cost	Annual Replacement Cost Depreciation	
						Cost	Net Book Value				
52.40.9029	General	Built In Cabinets & Count	6/3/2008	\$ 9,920	15.00	\$ -	\$ 661	\$ 4,245	1.29	\$ 12,817	\$ 854
52.40.9030	General	Heater Closet Buildout	9/17/2008	\$ 5,652	15.00	\$ -	\$ 377	\$ 2,528	1.29	\$ 7,303	\$ 487
52.40.4010	General	Ultrasonic Flow Measurer	4/1/1992	\$ 4,986	5.00	\$ -	\$ -	\$ -	2.15	\$ 10,739	\$ 2,148
52.40.4013	Treatment	Raw Sewage Pump - WWTP	4/1/1993	\$ 4,365	5.00	\$ -	\$ -	\$ -	2.06	\$ 8,995	\$ 1,799
52.40.4023	General	Energy Saving Equipment	9/1/1999	\$ 5,850	10.00	\$ -	\$ -	\$ -	1.77	\$ 10,365	\$ 1,037
52.40.4044	Pumping	Lift Station Pump	3/14/2003	\$ 1,498		\$ -	\$ -	\$ 1,498	1.60	\$ 2,403	\$ 48
52.40.4045	Pumping	Flygt Pump	8/22/2003	\$ 1,837		\$ -	\$ -	\$ 1,837	1.60	\$ 2,945	\$ 59
52.40.4046	Pumping	Flygt Pump	8/22/2003	\$ 2,205		\$ -	\$ -	\$ 2,205	1.60	\$ 3,536	\$ 71
52.40.4047	Pumping	Flygt	4/20/2006	\$ 2,155	5.00	\$ -	\$ -	\$ 2,155	1.39	\$ 2,985	\$ 597
52.40.4049	Pumping	Flygt Pump	1/22/2003	\$ 2,686		\$ -	\$ -	\$ 2,686	1.60	\$ 4,307	\$ 86
52.40.4055	General	Roesel Motor Generator	9/17/2004	\$ 51,675	20.00	\$ -	\$ 2,584	\$ 19,920	1.51	\$ 77,980	\$ 3,899
52.40.4056	Treatment	Lot Digester Mixer Equipment	8/6/2004	\$ 15,885	10.00	\$ -	\$ -	\$ -	1.51	\$ 23,971	\$ 2,397
52.40.4061	General	Additional Equipment	1/1/2004	\$ 2,483	1.00	\$ -	\$ -	\$ -	1.51	\$ 3,747	\$ 3,747
52.40.4062	Treatment	ABS Mixers & Accessories	6/15/2005	\$ 36,021	10.00	\$ -	\$ -	\$ -	1.44	\$ 51,940	\$ 5,194
52.40.4065	Treatment	LDO Probe	9/7/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4066	Treatment	LDO Probe	9/7/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4067	Treatment	LDO Probe	9/7/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4068	Treatment	LDO Probe	12/15/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4069	Treatment	LDO Probe	12/15/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4070	Treatment	LDO Probe	12/15/2005	\$ 1,150	8.00	\$ -	\$ -	\$ 1,150	1.44	\$ 1,658	\$ 207
52.40.4071	Treatment	SC100 Universal Controller	9/2/2005	\$ 1,300	20.00	\$ -	\$ -	\$ 1,300	1.44	\$ 1,875	\$ 94
52.40.4072	Treatment	SC 100 Universal Controller	9/2/2005	\$ 1,300	20.00	\$ -	\$ -	\$ 1,300	1.44	\$ 1,875	\$ 94
52.40.4074	Treatment	SC 100 Universal Controller	12/15/2005	\$ 1,300	20.00	\$ -	\$ -	\$ 1,300	1.44	\$ 1,875	\$ 94
52.40.4075	Treatment	SC 100 Universal Controller	12/15/2005	\$ 1,300	20.00	\$ -	\$ -	\$ 1,300	1.44	\$ 1,875	\$ 94
52.40.4076	Treatment	SC 100 Universal Controller	12/15/2005	\$ 1,300	20.00	\$ -	\$ -	\$ 1,300	1.44	\$ 1,875	\$ 94
52.40.4081	Pumping	Flygt Pump	10/31/2006	\$ 3,200	5.00	\$ -	\$ -	\$ 3,200	1.39	\$ 4,432	\$ 886
52.40.4082	Pumping	Flygt Pump	10/6/2006	\$ 1,989	5.00	\$ -	\$ -	\$ 1,989	1.39	\$ 2,755	\$ 551
52.40.4083	Pumping	Flygt Pump	10/6/2006	\$ 1,971	5.00	\$ -	\$ -	\$ 1,971	1.39	\$ 2,730	\$ 546
52.40.9017	Mains	S. Oak Sewer Line Replacement	1/1/1997	\$ 4,430	25.00	\$ -	\$ -	\$ 4,430	1.84	\$ 8,165	\$ 327
52.40.9042	Treatment	Flygt Submersible Pump Motor	8/5/2016	\$ 6,139	5.00	\$ -	\$ 500	\$ 5,639	1.04	\$ 6,375	\$ 1,275
52.40.9043	General	ABS Pump	10/14/2016	\$ 6,264	5.00	\$ -	\$ 270	\$ 5,994	1.04	\$ 6,505	\$ 1,301
52.40.9044	Treatment	Bar Screen	5/6/2016	\$ 87,134	5.00	\$ -	\$ 11,427	\$ 75,707	1.04	\$ 90,488	\$ 18,098
52.40.9046	Treatment	Sherpa 100 Eco Skid Steer	4/28/2016	\$ 33,561	5.00	\$ -	\$ 4,548	\$ 29,013	1.04	\$ 34,853	\$ 6,971
52.40.9048	General	Screw Weldment RP-135	4/19/2017	\$ 7,350	5.00	\$ -	\$ -	\$ 7,350	1.00	\$ 7,350	\$ 1,470
52.40.3001	Treatment	Regional WWTP	2/1/1988	\$ 2,451,974	25.00	\$ -	\$ -	\$ -	2.38	\$ 5,825,651	\$ 233,026
52.40.3002	Treatment	Regional WWTP - Capitalized Interest	2/1/1988	\$ 158,760	25.00	\$ -	\$ -	\$ -	2.38	\$ 377,198	\$ 15,088
52.40.3003	Treatment	Regional WWTP - Phase II	12/31/1995	\$ 3,463,794	25.00	\$ -	\$ 138,552	\$ 554,194	1.96	\$ 6,797,403	\$ 271,896
52.40.3004	Treatment	WWTP Phase III (2000, 2001, 2002)	12/1/2002	\$ 1,855,818	35.00	\$ -	\$ 53,023	\$ 1,113,491	1.64	\$ 3,047,624	\$ 87,075
52.40.3006	Treatment	Hillside Improvements	12/31/2005	\$ 14,800	20.00	\$ -	\$ 740	\$ 10,360	1.44	\$ 21,341	\$ 1,067
52.40.9032	Treatment	Geothermal Pump System	10/30/2008	\$ 62,550	20.00	\$ -	\$ 3,128	\$ 36,990	1.29	\$ 80,816	\$ 4,041
52.40.9033	Treatment	Sewer System Improvements	7/24/2008	\$ 11,500	20.00	\$ -	\$ 575	\$ 6,646	1.29	\$ 14,858	\$ 743
52.40.9034	Treatment	Treatment Plant Heating	6/30/2009	\$ 90,559	15.00	\$ -	\$ 6,037	\$ 45,238	1.25	\$ 113,453	\$ 7,564
52.40.9035	Treatment	Solar Project	7/30/2010	\$ 585,707	20.00	\$ -	\$ 29,285	\$ 409,995	1.22	\$ 714,420	\$ 35,721
52.40.9036	Treatment	Solar Project	6/30/2011	\$ 34,978	20.00	\$ -	\$ 1,749	\$ 25,347	1.18	\$ 41,406	\$ 2,070
52.40.9037	Treatment	Flygt Pump	8/24/2012	\$ 5,052	15.00	\$ -	\$ 337	\$ 3,585	1.15	\$ 5,828	\$ 389
52.40.9038	Treatment	Lighting Retrofit WWTP	10/30/2012	\$ 14,260	15.00	\$ -	\$ 951	\$ 10,294	1.15	\$ 16,449	\$ 1,097
52.40.9039	Treatment	UV System	6/30/2013	\$ 234,428	15.00	\$ -	\$ 15,629	\$ 179,621	1.12	\$ 263,651	\$ 17,577
52.40.9040	Treatment	WWTP Improvements	6/1/2014	\$ 183,843	15.00	\$ -	\$ 12,256	\$ 152,145	1.09	\$ 201,282	\$ 13,419
52.40.9041	Treatment	Raw Lift Station	6/1/2015	\$ 233,202	0.00	\$ -	\$ -	\$ 233,202	1.07	\$ 249,535	\$ -
52.40.9045	Treatment	WWTP Improvements	6/1/2016	\$ 330,525	15.00	\$ -	\$ 12,884	\$ 317,641	1.04	\$ 343,246	\$ 22,883
52.40.9047	Mains	Slip Line Columbia - Colorado	5/6/2016	\$ 23,900	15.00	\$ -	\$ 1,045	\$ 22,855	1.04	\$ 24,820	\$ 1,655
50.40.9000	Mains	Improvements	1/1/1968	\$ 14,934	25.00	\$ -	\$ -	\$ -	9.30	\$ 138,824	\$ 5,553
50.40.9001	Mains	Improvements	1/1/1969	\$ 2,539	25.00	\$ -	\$ -	\$ 2,539	8.46	\$ 21,482	\$ 859
50.40.9002	Mains	Improvements	1/1/1971	\$ 2,275	25.00	\$ -	\$ -	\$ 2,275	6.79	\$ 15,450	\$ 618
50.40.9003	Mains	Improvements	1/1/1972	\$ 3,431	25.00	\$ -	\$ -	\$ 3,431	6.12	\$ 21,014	\$ 841
50.40.9004	Mains	Improvements	1/1/1982	\$ 51,600	25.00	\$ -	\$ -	\$ -	2.81	\$ 144,840	\$ 5,794
50.40.9005	Mains	Donley	7/1/1985	\$ 9,950	25.00	\$ -	\$ -	\$ -	2.57	\$ 25,545	\$ 1,022
50.40.9006	Mains	Interceptor	2/1/1988	\$ 413,858	25.00	\$ -	\$ -	\$ -	2.38	\$ 983,286	\$ 39,331
50.40.9007	Mains	Colorado Avenue	5/1/1998	\$ 21,247	25.00	\$ -	\$ 850	\$ -	1.81	\$ 38,532	\$ 1,541
50.40.9008	Mains	Colorado Avenue	12/1/1989	\$ 7,640	15.00	\$ -	\$ -	\$ -	2.33	\$ 17,774	\$ 1,185
50.40.9009	Mains	Pandora Main	12/31/1990	\$ 10,911	15.00	\$ -	\$ -	\$ -	2.27	\$ 24,757	\$ 1,650
50.40.9010	Mains	Willow Alder	11/1/1991	\$ 18,815	25.00	\$ -	\$ -	\$ -	2.22	\$ 41,780	\$ 1,671
50.40.9011	Mains	Improvements	7/1/1994	\$ 15,551	25.00	\$ -	\$ 622	\$ 1,555	1.99	\$ 30,876	\$ 1,235
50.40.9012	Mains	Lerner Sewer	7/1/1995	\$ 7,186	25.00	\$ -	\$ 287	\$ 1,007	1.96	\$ 14,102	\$ 564

Town of Telluride
Utility Rate Study: Wastewater Utility
Assets

Replacement Cost Year: **2017**

Asset Number	Asset Category	Asset Description	Purchase Date	Original Cost	Useful Life	Annual Original Cost Depreciation	Net Book Value
50.40.9013	Mains	McGlamery Sewer	7/1/1995	\$ 11,168	25.00	\$ 447	\$ 1,563
50.40.9016	Mains	Manholes	7/1/1996	\$ 25,818	15.00	\$ -	\$ -
50.40.9019	Mains	Pine & Pacific Sewer Main	7/1/1997	\$ 9,699	25.00	\$ 388	\$ 2,134
50.40.9020	Mains	Streetscape Replacement	7/1/1997	\$ 38,469	25.00	\$ 1,539	\$ 8,462
50.40.9021	Mains	Lines	7/1/1998	\$ 64,779	25.00	\$ 2,591	\$ 16,843
50.40.9022	Mains	Lawson Hill Lift Station	7/1/1998	\$ 18,208	15.00	\$ -	\$ -
50.40.9023	Mains	Improvements - 1999	7/1/1999	\$ 92,478	25.00	\$ 3,699	\$ 27,743
50.40.9026	Mains	Improvements - 2000	7/1/2000	\$ 64,011	25.00	\$ 2,560	\$ 21,764
50.40.9027	Mains	Improvements - 2001	7/1/2001	\$ 63,029	25.00	\$ 2,521	\$ 23,951
50.40.9028	Mains	System Improvements	12/31/2002	\$ 98,962	35.00	\$ 2,827	\$ 59,377
52.40.1002	Treatment	Sludge Site	9/7/1992	\$ 29,298		\$ -	\$ 29,298
52.40.1003	General	Sewer Land	6/18/2001	\$ 278,713		\$ -	\$ 278,713
51.40.9048	General	2010 John Deere 4WD Back	10/8/2010	\$ 24,975	5.00	\$ -	\$ 0
Totals from this Table				\$ 11,467,849		\$ 314,890	\$ 3,788,026
Override Detail Data with Total (leave blank to use detail in table above)*							
Totals used in Model				\$ 11,467,849		\$ 314,890	\$ 3,788,026

ENR Multiplier	Replacement Cost	Annual Replacement Cost Depreciation
1.96	\$ 21,916	\$ 877
1.91	\$ 49,305	\$ 3,287
1.84	\$ 17,877	\$ 715
1.84	\$ 70,905	\$ 2,836
1.81	\$ 117,477	\$ 4,699
1.81	\$ 33,020	\$ 2,201
1.77	\$ 163,860	\$ 6,554
1.73	\$ 110,472	\$ 4,419
1.69	\$ 106,704	\$ 4,268
1.64	\$ 162,515	\$ 4,643
2.15	\$ 63,104	\$ 1,262
1.69	\$ 471,842	\$ 9,437
1.22	\$ 30,463	\$ 6,093
0.00	\$ -	\$ -
	\$ 21,483,711	\$ 884,024
		\$ 884,024

*"Replacement Cost" column is not used outside of this page, and therefore, does not need an override.

Town of Telluride
Utility Rate Study: Wastewater Utility

Wastewater Rate Schedule

Recommended Rate Schedule	Existing 2018	ATB 2019	ATB 2020	ATB 2021	ATB 2022	ATB 2023
Annual System-Wide Rate Increase		70.0%	8.0%	8.0%	8.0%	8.0%
IN TOWN						
Residential						
Residential	\$ 61.08	\$ 103.84	\$ 112.14	\$ 121.11	\$ 130.80	\$ 141.27
Residential Size&Deed Restricted	\$ 45.59	\$ 77.50	\$ 83.70	\$ 90.40	\$ 97.63	\$ 105.44
EMT & Firefighter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial						
Fixed Charge						
5/8"	\$ 61.08	\$ 103.84	\$ 112.14	\$ 121.11	\$ 130.80	\$ 141.27
3/4"	\$ 91.44	\$ 155.45	\$ 167.88	\$ 181.31	\$ 195.82	\$ 211.49
1"	\$ 122.03	\$ 207.45	\$ 224.05	\$ 241.97	\$ 261.33	\$ 282.23
1.5"	\$ 243.97	\$ 414.75	\$ 447.93	\$ 483.76	\$ 522.46	\$ 564.26
2"	\$ 366.01	\$ 622.22	\$ 671.99	\$ 725.75	\$ 783.81	\$ 846.52
3"	\$ 549.00	\$ 933.30	\$ 1,007.96	\$ 1,088.60	\$ 1,175.69	\$ 1,269.74
4"	\$ 732.02	\$ 1,244.43	\$ 1,343.99	\$ 1,451.51	\$ 1,567.63	\$ 1,693.04
Usage Charge						
per 1,000 gallons above base	\$ 6.87	\$ 11.68	\$ 12.61	\$ 13.62	\$ 14.71	\$ 15.89
OUT OF TOWN						
Residential						
Residential	\$ 76.35	\$ 129.80	\$ 140.18	\$ 151.39	\$ 163.50	\$ 176.58
Residential Size&Deed Restricted	\$ 56.97	\$ 96.85	\$ 104.60	\$ 112.96	\$ 122.00	\$ 131.76
EMT & Firefighter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial						
Fixed Charge						
5/8"	\$ 76.35	\$ 129.80	\$ 140.18	\$ 151.39	\$ 163.50	\$ 176.58
3/4"	\$ 114.30	\$ 194.31	\$ 209.85	\$ 226.64	\$ 244.77	\$ 264.36
1"	\$ 152.55	\$ 259.34	\$ 280.08	\$ 302.49	\$ 326.69	\$ 352.82
1.5"	\$ 313.69	\$ 533.27	\$ 575.93	\$ 622.01	\$ 671.77	\$ 725.51
2"	\$ 457.51	\$ 777.77	\$ 839.99	\$ 907.19	\$ 979.76	\$ 1,058.14
3"	\$ 705.85	\$ 1,199.95	\$ 1,295.94	\$ 1,399.62	\$ 1,511.59	\$ 1,632.51
4"	\$ 941.16	\$ 1,599.97	\$ 1,727.97	\$ 1,866.21	\$ 2,015.50	\$ 2,176.74
Usage Charge						
per 1,000 gallons above base	\$ 8.58	\$ 14.59	\$ 15.75	\$ 17.01	\$ 18.37	\$ 19.84

Town of Telluride
Utility Rate Study: Wastewater Utility
Functional Allocation

Allocation of Plant in Service							
Plant in Service	Original Cost	FUNCTIONS OF SERVICE				Total (%)	Allocation Basis
		Customer	Flow	BOD	As All Others		
Mains	\$ 1,094,888	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow All Flow As Treatment All Customer
Pumping	17,540	0.00%	100.00%	0.00%	0.00%	100.00%	
Treatment	9,957,554	0.00%	50.00%	50.00%	0.00%	100.00%	
General	397,868	100.00%	0.00%	0.00%	0.00%	100.00%	
Total Utility Plant	\$ 11,467,849	\$ 397,868	\$ 6,091,205	\$ 4,978,777	\$ -	\$ 11,467,849	
Water Service Functions		3.47%	53.12%	43.42%		100.00%	
Allocation of "As All Others"		\$ -	\$ -	\$ -	\$ -	\$ -	
Plant in Service: Functional Allocation	\$ 11,467,849	\$ 397,868	\$ 6,091,205	\$ 4,978,777	\$ -	\$ 11,467,849	
Plant in Service: Allocation %		3.47%	53.12%	43.42%	0.00%	100.00%	

\$ 11,467,849 Total Plant
 OK Check

Town of Telluride
 Utility Rate Study: Wastewater Utility
 Functional Allocation

Allocation of Operating Expenses							
Select Test Year →		2019					
O&M Expenses	Total (\$)	FUNCTIONS OF SERVICE			As All Others	Total (%)	Allocation Basis
		Customer	Flow	BOD			
Treatment Facility Expenses							
SALARIES & WAGES	\$ 260,505	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
OVERTIME HOURS	3,150	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
ON CALL TIME	18,732	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS - FICA	23,478	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS - HEALTH INS	50,610	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS-WORKERS COMP	11,172	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS-UNEMPLOYMENT	924	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS - HOUS ALLOW	33,915	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFITS-401 PLAN	13,104	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EMPLOYEE BENEFIT-LT DISABILITY	1,628	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
DUES, BOOKS, PERMITS	9,302	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
OFFICE SUPPLIES	2,563	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
CHEMICALS/POLY/LIME	32,800	0.00%	0.00%	100.00%	0.00%	100.00%	As BOD
UV EQUIPMENT	5,125	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
LAB SUPPLIES	19,475	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
MISC. SUPPLIES	4,613	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
JANITORIAL SUPPLIES	513	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
GREASE/OIL/FILTERS	1,538	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
NPDES PERMIT TESTING	25,625	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
EQUIPMENT REPLACEMENT	27,675	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
SLUDGE DISPOSAL PERMIT	16,913	0.00%	0.00%	100.00%	0.00%	100.00%	As BOD
BIOSOLIDS DISPOSAL	92,250	0.00%	0.00%	100.00%	0.00%	100.00%	As BOD
EQUIPMENT RENTAL	1,538	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
PICK-UP TRUCK MAINT.	6,300	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
SLUDGE TRUCK MAINTENANCE	17,325	0.00%	0.00%	100.00%	0.00%	100.00%	As BOD
GAS HEATING	15,375	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
ELECTRIC POWER	320,825	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
TELEPHONE	17,425	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
PROFESSIONAL SERVICES	52,815	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
TRAVEL & TRAINING	3,998	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
REFUSE, RECYCLE, REUSE	2,050	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
UNIFORMS/CLOTHING	1,076	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
GAS & OIL	20,500	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
DIESEL GENERATOR	4,613	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
TRANSFERS TO GEN FUND - ADMIN	77,777	39.45%	29.67%	30.88%	0.00%	100.00%	Per 2013 Study - WWTP Admin
Sewer System Expense							
SALARIES & WAGES	40,646	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
OVERTIME HOURS	473	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS - FICA	4,148	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS - HEALTH INS	8,925	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS-WORKERS COMP	1,985	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS-UNEMPLOYMENT	168	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS - HOUS ALLOW	8,610	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFITS-401 PLAN	2,310	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMPLOYEE BENEFIT-LT DISABILITY	294	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
SYSTEM O & M	39,924	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
OPERATING SUPPLIES	2,050	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EQUIPMENT RENTAL	6,560	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
SIDEWALK REPAIR	1,025	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
RADIO REPAIR	513	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
VEHICLE MAINTENANCE	9,430	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
UTILITIES	4,715	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
EMERGENCY REPAIRS	21,730	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
PROFESSIONAL SERVICES	6,720	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
TRANSFERS TO GEN FUND - ADMIN	181,481	100.00%	0.00%	0.00%	0.00%	100.00%	All Customer
PRIOR YEAR REVENUE REFUND	-	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
[Extra]	-	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
[Extra]	-	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
[Extra]	-	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
[Extra]	-	0.00%	100.00%	0.00%	0.00%	100.00%	All Flow
Total Operating Expenses	\$ 1,538,927	\$ 212,162	\$ 663,380	\$ 663,386	\$ -	\$ 1,538,927	
Water Service Functions		13.79%	43.11%	43.11%	-	100.00%	
Allocation of "As All Others"		\$ -	\$ -	\$ -	\$ -	\$ -	
O&M Expenses: Functional Allocation	\$ 1,538,927	\$ 212,162	\$ 663,380	\$ 663,386	\$ -	\$ 1,538,927	
O&M Expenses: Allocation (%)		13.79%	43.11%	43.11%	0.00%	100.00%	

\$ 1,538,927 O&M Expenses
 OK Check

Town of Telluride
 Utility Rate Study: Wastewater Utility
 Functional Allocation

Allocation of Revenue Requirement							
Revenue Requirement	Total (\$)	FUNCTIONS OF SERVICE				Total (%)	Allocation Basis
		Customer	Flow	BOD	As All Others		
Total Expenses							
Cash Operating Expenses	\$ 1,538,927	13.79%	43.11%	43.11%	0.00%	100.00%	As O&M Expenses
Existing Debt Service	-	3.47%	53.12%	43.42%	0.00%	100.00%	As Plant in Service
New Debt Service	-	3.47%	53.12%	43.42%	0.00%	100.00%	As Plant in Service
Capital Replacement & Improvement Funding	-	3.47%	53.12%	43.42%	0.00%	100.00%	As Plant in Service
Additions Required to Meet Min. Debt Reserve	-	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
Additions Required to Meet Min. Operating Reserve	-	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
Total Expenses	\$ 1,538,927	13.79%	43.11%	43.11%	0.00%	100.00%	
Less: Non-Rate Revenues							
Tap Fee Revenue Towards Debt Service	-	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
O&M Payments from Mountain Village	(419,028)	2.56%	42.03%	55.41%	0.00%	100.00%	As Treatment O&M Expenses
Debt Service Payments from Mountain Village	-	0.00%	50.00%	50.00%	0.00%	100.00%	As Treatment
Other Non-Rate Revenue	(41,384)	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
Plus: Cash Flow Adjustments							
Adjustment for Partial Year Increase	-	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
Net Cash Flow After Rate Increase	733,764	0.00%	0.00%	0.00%	100.00%	100.00%	As All Others
Rate Revenue Requirement	\$ 1,812,279	\$ 201,424	\$ 487,275	\$ 431,201	\$ 692,380	\$ 1,812,279	
Water Service Functions		17.99%	43.51%	38.50%		100.00%	
Allocation of "As All Others"		\$ 124,530	\$ 301,259	\$ 266,591	\$ (692,380)	\$ -	
Rate Revenue Requirement Allocation %	\$ 1,812,279	\$ 325,954	\$ 788,534	\$ 697,792	\$ -	\$ 1,812,279	
		17.99%	43.51%	38.50%	0.00%	100.00%	

\$ 1,538,927 Total Expenses

OK Check

\$ 1,812,279 Rate Revenue Requireme

OK Check

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Allocation

Customer Statistics Forecast: 2019

Rate Multipliers	
Size/Deed-Restricted	0.75
Volunteer EMT/Fire	0.00

Class	Accounts	Weighted Accounts	Estimated Sewer Flow	Weighted Sewer Flow	Estimated BOD Loadings	Weighted BOD Loadings
Telluride Residential	1,167	1,085	66,734 kgal	64,000 kgal	141,922 ppd	136,108 ppd
Telluride Commercial	227	227	89,259 kgal	89,259 kgal	217,995 ppd	217,995 ppd
Residential (Outside Town)	5	5	450 kgal	450 kgal	957 ppd	957 ppd
Aldasoro Residential	70	70	4,016 kgal	4,016 kgal	8,541 ppd	8,541 ppd
Lawson Hill Residential	148	135	8,625 kgal	7,969 kgal	18,343 ppd	16,949 ppd
Lawson Hill Commercial	30	30	5,676 kgal	5,676 kgal	13,862 ppd	13,862 ppd
Hillside Residential	70	62	3,365 kgal	3,121 kgal	7,156 ppd	6,638 ppd
Hillside Commercial	11	11	3,019 kgal	3,019 kgal	7,373 ppd	7,373 ppd
Septic Haulers	-	-	230 kgal	230 kgal	13,427 ppd	13,427 ppd
Total	1,729	1,626	181,373 kgal	177,741 kgal	429,576 ppd	421,850 ppd

Assumed BOD Concentration of Septage: **7,000.0 mg/L**

Cost Allocation: 2019

Customer Costs			
Allocated Costs			\$ 325,954
Allocation Basis			Weighted Accounts
Class	Allocated Units	% of Total	Allocated Costs (\$)
Telluride Residential	1,085	66.76%	217,598
Telluride Commercial	227	13.95%	45,462
Residential (Outside Town)	5	0.31%	1,022
Aldasoro Residential	70	4.33%	14,098
Lawson Hill Residential	135	8.33%	27,137
Lawson Hill Commercial	30	1.82%	5,925
Hillside Residential	62	3.82%	12,464
Hillside Commercial	11	0.69%	2,248
Septic Haulers	-	0.00%	-
Total	1,626	100.00%	\$ 325,954

Flow Costs			
Allocated Costs			\$ 788,534
Allocation Basis			Weighted Sewer Flow
Class	Allocated Units	% of Total	Allocated Costs (\$)
Telluride Residential	64,000	36.01%	283,931
Telluride Commercial	89,259	50.22%	395,994
Residential (Outside Town)	5	0.25%	1,996
Aldasoro Residential	4,016	2.26%	17,817
Lawson Hill Residential	7,969	4.48%	35,356
Lawson Hill Commercial	5,676	3.19%	25,181
Hillside Residential	3,121	1.76%	13,847
Hillside Commercial	3,019	1.70%	13,392
Septic Haulers	230	0.13%	1,020
Total	177,741	100.00%	\$ 788,534

BOD Costs			
Allocated Costs			\$ 697,792
Allocation Basis			Weighted BOD Loadings
Class	Allocated Units	% of Total	Allocated Costs (\$)
Telluride Residential	136,108	32.26%	225,140
Telluride Commercial	217,995	51.68%	360,591
Residential (Outside Town)	957	0.23%	1,583
Aldasoro Residential	8,541	2.02%	14,127
Lawson Hill Residential	16,949	4.02%	28,035
Lawson Hill Commercial	13,862	3.29%	22,930
Hillside Residential	6,638	1.57%	10,980
Hillside Commercial	7,373	1.75%	12,195
Septic Haulers	13,427	3.18%	22,211
Total	421,850	100.00%	\$ 697,792

Cost of Service Summary

Class	Allocated Cost of Service				Allocation Under Existing Rates	% Change
	Customer Costs	Flow Costs	BOD Costs	Total		
Telluride Residential	\$ 217,598	\$ 283,931	\$ 225,140	\$ 726,669	\$ 397,781	82.68%
Telluride Commercial	45,462	395,994	360,591	802,047	480,406	66.95%
Residential (Outside Town)	1,022	1,996	1,583	4,600	2,334	97.04%
Aldasoro Residential	14,098	17,817	14,127	46,042	32,216	42.92%
Lawson Hill Residential	27,137	35,356	28,035	90,528	62,010	45.99%
Lawson Hill Commercial	5,925	25,181	22,930	54,037	43,492	24.25%
Hillside Residential	12,464	13,847	10,980	37,290	28,481	30.93%
Hillside Commercial	2,248	13,392	12,195	27,835	19,327	44.02%
Septic Haulers	-	1,020	22,211	23,231	-	0.00%
Total	\$ 325,954	\$ 788,534	\$ 697,792	\$ 1,812,279	\$ 1,066,047	70.00%

Septage Rate per Gallon: **\$0.1010**
per 1,000 Gal. **\$101.00**

OK

Town of Telluride
Utility Rate Study: Wastewater Utility
Customer Allocation

Rate Design

Bimonthly Rate Schedule	Existing	ATB Increase	COS Rates			
Inside			Telluride			
Residential Base Rates						
Size/Deed-Restricted	\$45.59	\$77.50	\$83.28			
Volunteer EMT/Fire	\$0.00	\$0.00	\$0.00			
Other	\$61.08	\$103.84	\$111.58			
Commercial Base Rates						
5/8" Meter (Includes 8 kgal)	\$61.08	\$103.84	\$101.97			
3/4" Meter (Includes 12 kgal)	\$91.44	\$155.45	\$152.66			
1" Meter (Includes 16 kgal)	\$122.03	\$207.45	\$203.73			
1-1/2" Meter (Includes 32 kgal)	\$243.97	\$414.75	\$407.31			
2" Meter (Includes 48 kgal)	\$366.01	\$622.22	\$611.06			
3" Meter (Includes 72 kgal)	\$549.00	\$933.30	\$916.57			
4" Meter (Includes 96 kgal)	\$732.02	\$1,244.43	\$1,222.12			
Volume Rates						
Rate per kgal Above Base Volume	\$6.87	\$11.68	\$11.47			
Outside			Residential (Outside Town)	Aldasoro	Lawson Hill	Hillside
Residential Base Rates						
Size/Deed-Restricted	\$56.99	\$96.88			\$83.20	\$74.61
Volunteer EMT/Fire	\$0.00	\$0.00			\$0.00	\$0.00
Other	\$76.35	\$129.80	\$150.44	\$109.12	\$111.46	\$99.97
Commercial Base Rates						
5/8" Meter	\$76.35	\$129.80			\$94.86	\$109.96
3/4" Meter	\$114.30	\$194.31			\$142.01	\$164.61
1" Meter	\$152.54	\$259.32			\$189.53	\$219.69
1-1/2" Meter	\$304.96	\$518.43			\$378.90	\$439.20
2" Meter	\$457.51	\$777.77			\$568.44	\$658.90
3" Meter	\$686.25	\$1,166.63			\$852.64	\$988.33
4" Meter	\$915.03	\$1,555.55			\$1,136.89	\$1,317.82
Volume Rates						
Rate per kgal Above Base Volume	\$8.59	\$14.60			\$10.67	\$12.37

As Multiple of Inside-Town Rate - COS-Based Multipliers

	Existing	ATB Increase	Residential (Outside Town)	Aldasoro	Lawson Hill	Hillside
Residential Base Rates						
Size/Deed-Restricted	1.25	1.25			1.00	0.90
Volunteer EMT/Fire	(N/A)	(N/A)			(N/A)	(N/A)
Other	1.25	1.25	1.35	0.98	1.00	0.90
Commercial Base Rates						
5/8" Meter	1.25	1.25			0.93	1.08
3/4" Meter	1.25	1.25			0.93	1.08
1" Meter	1.25	1.25			0.93	1.08
1-1/2" Meter	1.25	1.25			0.93	1.08
2" Meter	1.25	1.25			0.93	1.08
3" Meter	1.25	1.25			0.93	1.08
4" Meter	1.25	1.25			0.93	1.08
Volume Rates						
Rate per kgal Above Base Volume	1.25	1.25			0.93	1.08

Revenue Calculations

Revenue Calculations	Existing	ATB Increase	COS Rates
Telluride Residential	\$ 397,781	\$ 676,227	\$ 726,669
Telluride Commercial	480,406	816,690	802,047
Residential (Outside Town)	2,334	3,969	4,600
Aldasoro Residential	32,216	54,767	46,042
Lawson Hill Residential	62,010	105,416	90,528
Lawson Hill Commercial	43,492	73,936	54,037
Hillside Residential	28,481	48,417	37,290
Hillside Commercial	19,327	32,857	27,835
Septic Hauler	-	-	23,231
Total	\$ 1,066,047	\$ 1,812,279	\$ 1,812,279

Appendix B:

Mountain Village Rate Analysis

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
Summary

Revenue Requirement	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenues													
Rate Revenues Under Existing Rates	\$ 2,688,952	\$ 2,729,760	\$ 2,769,745	\$ 2,810,513	\$ 2,852,080	\$ 2,894,462	\$ 2,937,674	\$ 2,981,734	\$ 3,026,657	\$ 3,072,462	\$ 3,119,165	\$ 3,166,784	\$ 3,215,338
Non-Rate Revenues	29,861	23,750	23,688	23,732	23,774	23,821	23,867	25,549	25,599	25,653	25,708	25,766	28,916
Total Revenues	\$ 2,718,813	\$ 2,753,511	\$ 2,793,433	\$ 2,834,245	\$ 2,875,855	\$ 2,918,283	\$ 2,961,542	\$ 3,007,283	\$ 3,052,257	\$ 3,098,115	\$ 3,144,873	\$ 3,192,550	\$ 3,244,254
Expenses													
Cash Operating Expenses	\$ 1,865,843	\$ 1,815,200	\$ 1,850,916	\$ 1,885,205	\$ 1,923,029	\$ 1,960,704	\$ 2,001,377	\$ 2,042,044	\$ 2,085,857	\$ 2,129,786	\$ 2,177,023	\$ 2,224,515	\$ 2,275,493
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-	326,348	326,348	326,348	326,348	326,348	326,348	326,348
Rate Fund Capital	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions Required to Meet Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	\$ 1,865,843	\$ 1,815,200	\$ 1,850,916	\$ 1,885,205	\$ 1,923,029	\$ 1,960,704	\$ 2,327,725	\$ 2,368,392	\$ 2,412,205	\$ 2,456,134	\$ 2,503,372	\$ 2,550,863	\$ 2,601,841
Net Surplus (Deficiency)	\$ 852,970	\$ 938,310	\$ 942,517	\$ 949,040	\$ 952,825	\$ 957,579	\$ 633,816	\$ 638,891	\$ 640,052	\$ 641,981	\$ 641,501	\$ 641,687	\$ 642,413
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 852,970	\$ 938,310	\$ 942,517	\$ 949,040	\$ 952,825	\$ 957,579	\$ 633,816	\$ 638,891	\$ 640,052	\$ 641,981	\$ 641,501	\$ 641,687	\$ 642,413
Annual Rate Increase		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Rate Increase		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Revenues After Rate Increases	\$ 2,688,952	\$ 2,798,004	\$ 2,909,964	\$ 3,026,616	\$ 3,148,163	\$ 3,274,818	\$ 3,406,802	\$ 3,544,345	\$ 3,687,688	\$ 3,837,084	\$ 3,992,795	\$ 4,155,096	\$ 4,324,273
Net Cash Flow After Rate Increase	\$ 852,970	\$ 1,006,554	\$ 1,082,735	\$ 1,165,142	\$ 1,248,908	\$ 1,337,935	\$ 1,102,944	\$ 1,201,502	\$ 1,301,083	\$ 1,406,603	\$ 1,515,131	\$ 1,629,998	\$ 1,751,348
Coverage After Rate Increase: Bonded Debt	n/a	n/a	n/a	n/a	n/a	n/a	4.74	5.08	5.34	5.66	6.00	6.36	6.73
Coverage After Rate Increase: Total Debt	n/a	n/a	n/a	n/a	n/a	n/a	4.74	5.08	5.34	5.66	6.00	6.36	6.73
Sample Residential Bill (5/8" Meter, x 14 ccf)	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21	\$49.21
Annual Increase (\$)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Net Cash Flow Check - - - - -

Fund Balance	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Reserve													
Beginning Balance	\$ 3,282,187	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 1,166,799
plus: Net Cash Flow after Rate Increase	852,970	1,006,554	1,082,735	1,165,142	1,248,908	1,337,935	1,102,944	1,201,502	1,301,083	1,406,603	1,515,131	1,629,998	1,751,348
less: Transfer of Surplus to Capital Fund	(3,675,086)	(1,019,042)	(1,073,929)	(1,156,687)	(1,239,582)	(1,328,646)	(1,092,914)	(1,191,475)	(1,290,279)	(1,395,772)	(1,503,483)	(1,000,000)	(2,357,066)
Ending Balance	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 1,166,799	\$ 561,080
<i>Actual Days of O&M</i>	<i>90 days</i>	<i>191 days</i>	<i>90 days</i>										
<i>Minimum Balance Requirement</i>	\$ 306,714	\$ 298,389	\$ 304,260	\$ 309,897	\$ 316,114	\$ 322,307	\$ 328,994	\$ 335,678	\$ 342,881	\$ 350,102	\$ 357,867	\$ 365,674	\$ 374,054
<i>Maximum Balance Requirement</i>	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 548,511	\$ 561,080
Capital Reserve													
Beginning Balance	\$ -	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684
plus: System Reinvestment Funding	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	3,675,086	1,019,042	1,073,929	1,156,687	1,239,582	1,328,646	1,092,914	1,191,475	1,290,279	1,395,772	1,503,483	1,000,000	2,357,066
plus: Capital Grants / Other Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: SDC Revenue Towards Capital	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000
plus: Revenue Bond Proceeds	-	-	-	-	-	-	3,700,000	-	-	-	-	-	-
plus: Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	-	12,014	14,503	17,412	16,553	9,668	9,305	22,792	6,885	8,508	10,521	12,933	12,683
Total Funding Sources	\$ 3,782,086	\$ 3,540,892	\$ 4,096,048	\$ 4,763,467	\$ 4,673,642	\$ 3,378,831	\$ 6,770,195	\$ 5,879,569	\$ 2,781,140	\$ 3,212,830	\$ 3,725,209	\$ 3,706,464	\$ 5,013,433
less: Capital Expenditures	(1,379,250)	(640,275)	(613,681)	(1,452,959)	(2,740,125)	(1,517,855)	(2,211,892)	(4,502,593)	(1,079,590)	(1,108,625)	(1,138,677)	(1,169,781)	(1,201,973)
Ending Capital Fund Balance	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684	\$ 3,811,460
<i>Minimum Target Balance</i>	\$ 13,793	\$ 20,195	\$ 26,332	\$ 40,862	\$ 68,263	\$ 83,441	\$ 105,560	\$ 150,586	\$ 161,382	\$ 172,468	\$ 183,855	\$ 195,553	\$ 207,573
Combined Beginning Balance	\$ 3,282,187	\$ 2,862,907	\$ 3,348,200	\$ 3,938,758	\$ 3,775,353	\$ 2,407,689	\$ 2,344,437	\$ 5,051,793	\$ 1,880,494	\$ 2,215,871	\$ 2,629,357	\$ 3,123,332	\$ 3,703,482
Combined Ending Balance	\$ 2,862,907	\$ 3,348,200	\$ 3,938,758	\$ 3,775,353	\$ 2,407,689	\$ 2,344,437	\$ 5,051,793	\$ 1,880,494	\$ 2,215,871	\$ 2,629,357	\$ 3,123,332	\$ 3,703,482	\$ 4,372,540
<i>Ending Total Days of Operating Expenditures</i>	<i>560 days</i>	<i>673 days</i>	<i>777 days</i>	<i>731 days</i>	<i>457 days</i>	<i>436 days</i>	<i>921 days</i>	<i>336 days</i>	<i>388 days</i>	<i>451 days</i>	<i>524 days</i>	<i>608 days</i>	<i>701 days</i>
<i>Combined Minimum Target Balance</i>	<i>320,506</i>	<i>318,584</i>	<i>330,592</i>	<i>350,758</i>	<i>384,377</i>	<i>405,749</i>	<i>434,554</i>	<i>486,265</i>	<i>504,263</i>	<i>522,570</i>	<i>541,722</i>	<i>561,227</i>	<i>581,626</i>

Operating Check - - - - -
Capital Check - - - - -

Town of Mountain Village
 Utility Rate Study: Water/Sewer Utility
 Assumptions

Economic & Financial Factors	Historical	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Escalation Rates														
General Cost Inflation		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Construction Cost Inflation		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Labor Cost Inflation		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Benefit Cost Inflation		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Labor + Benefits		2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
MV Revenue Growth		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Ski Ranches Revenue Growth		2.00%	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Employee Benefit Costs		0.00%	10.34%	10.35%	10.36%	10.36%	10.36%	10.36%	10.36%	10.36%	10.36%	10.36%	10.36%	10.36%
Repair & Maintenance Costs		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Natural Gas Costs		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
General Fund Transfers		0.00%	0.00%	1.38%	-0.42%	1.02%	0.00%	1.00%	0.00%	1.00%	0.00%	1.00%	0.00%	1.00%
No Escalation		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment Interest		0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Accounting & Financial Policy Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Beginning Fund Balances														
Operating Reserve	\$ 3,282,187													
Capital Reserve														
Debt Reserve														
	\$ 3,282,187													
Realization Factors														
Operating Budget Realization Factor (100% is default)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
CIP Completion Factor (100% is default)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Total Operating and Capital Cash Tests: Days of O&M (Informational only--does not drive rate increases)														
	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	150 days	
Operating Balance: Minimum & Maximum Target														
Min. Fund Balance Target (days of O&M expense)	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	60 days	
Max. Fund Balance (days of O&M expense)	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	90 days	
Capital Balance: Minimum Target														
Select Minimum Capital Fund Option →	1	% of Plant Assets (Original Cost)												
1 % of Plant Assets (Original Cost)	\$ 13,793	\$ 20,195	\$ 26,332	\$ 40,862	\$ 68,263	\$ 83,441	\$ 105,560	\$ 150,586	\$ 161,382	\$ 172,468	\$ 183,855	\$ 195,553	\$ 207,573	
% of Total (between 1%-2%)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	
2 % of Plant Assets + % Annual CIP	\$ 230,748	\$ 237,151	\$ 243,288	\$ 257,818	\$ 285,219	\$ 300,397	\$ 322,516	\$ 367,542	\$ 378,338	\$ 389,424	\$ 400,811	\$ 412,509	\$ 424,529	
% of Plant	\$ 13,793	\$ 20,195	\$ 26,332	\$ 40,862	\$ 68,263	\$ 83,441	\$ 105,560	\$ 150,586	\$ 161,382	\$ 172,468	\$ 183,855	\$ 195,553	\$ 207,573	
% Annual CIP	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	\$ 216,956	
Total Reserve	\$ 230,748	\$ 237,151	\$ 243,288	\$ 257,818	\$ 285,219	\$ 300,397	\$ 322,516	\$ 367,542	\$ 378,338	\$ 389,424	\$ 400,811	\$ 412,509	\$ 424,529	
3 User Input	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
System Reinvestment Funding														
Select Annual Funding Option →	1	Original Cost Depreciation												
<u>Target Amounts</u>														
1 Original Cost Depreciation														
2 Estimated Replacement Cost Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3 Manual User Input	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4 No Rate Funded Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Percent Toggle of Selected Funding Target	15%	18%	20%	23%	25%	28%	30%	33%	35%	38%	40%	43%	45%	
Funding Target Assumed in Model	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Actual Result w/ Transfers (compared to Annual Depreciation)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
Assumptions

Capital Financing Assumptions		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Tap Fees														
<u>Calculated</u>														
Actual Charge	Beginning Customer		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Existing Customer Base	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468
Incremental Customer Base		100	102	104	106	108	110	113	115	117	120	122	124	127
Annual Charges		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<u>Manual Input</u>														
Total Tap Fee Revenue to Use in Model	Manual	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000
Tap Fees Towards Debt Service														
Total Annual Debt Service		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348
Policy % Tap Fee to Pay for Debt Service	(0% is default)													
Total Annual Tap Fee Revenue		\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000
Total Tap Fee for Debt Service		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Tap Fee for Capital		\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000
Other Funding Sources (Uses)														
<u>Capital Grants / Other Resources</u>														
Developer Contributions / Grants		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]		-	-	-	-	-	-	-	-	-	-	-	-	-
Total		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bonds														
Term (years)		20 years												
Interest Only Payments (years)		0 years												
Interest Cost		4.00%	4.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Legal Minimum or Policy Coverage	1.50													
Use Reserves to Pay for Last Payment?	Yes													
Include / Exclude Tap Fees in Coverage?	Include													
<u>Funding Debt Reserve</u>														
Minimum Reserve Requirement on Existing Revenue Bonds		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348
Beginning Debt Reserve + Additions from New Issues		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348
Surplus / (Deficit)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)	\$ (0)
Manual Additions to Reserves (leave blank to auto calc.)														
Additions to Debt Reserve	Manual	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 1 <i>Level total payments</i>														
Term (years)		20 years												
Interest Only Payments (years)		0 years												
Interest Cost		4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Loans 2 <i>Level principal payments</i>														
Term (years)		20 years												
Interest Only Payments (years)		0 years												
Interest Cost		1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Issuance Cost		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Other Loans 3 <i>Level principal payments</i>														
Term (years)		20 years												
Interest Only Payments (years)		0 years												
Interest Cost		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

Town of Mountain Village
 Utility Rate Study: Water/Sewer Utility
 Operating Revenue and Expenditure Forecast

Operating Expenses	Escalation	Actuals		Budget										
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2037	
Mountain Village Water														
Employee Costs														
Salaries & Wages	No Escalation	\$ 284,987	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438	\$ 284,438
Offset labor	No Escalation	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Housing allowance	No Escalation	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970	8,970
Health Benefits	Benefit Cost Inflation	64,084	60,880	63,924	67,120	70,476	74,000	77,700	81,585	85,664	89,947	94,445	153,841	153,841
Dependent Health Reimbursement	No Escalation	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)	(7,809)
Payroll Taxes	No Escalation	43,831	43,747	43,747	43,747	43,747	43,747	43,747	43,747	43,747	43,747	43,747	43,747	43,747
Retirement Benefits	No Escalation	15,039	16,832	15,010	15,010	15,010	15,010	15,010	15,010	15,010	15,010	15,010	15,010	15,010
Workers Compensation	Benefit Cost Inflation	5,616	5,616	5,897	6,192	6,501	6,826	7,168	7,526	7,902	8,297	8,712	14,191	14,191
Other Employee Benefits	Other Employee Benefit Costs	4,813	4,923	5,432	5,994	6,615	7,300	8,056	8,890	9,811	10,827	11,948	32,005	32,005
Employee Costs														
Employee Appreciation	No Escalation	275	533	533	533	533	533	533	533	533	533	533	533	533
Uniforms	No Escalation	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170
Legal/Engineering	No Escalation	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Water Sample Analysis	No Escalation	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Water Augmentation Plan	No Escalation	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Janitorial	No Escalation	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586	1,586
System Repairs & Maintenance	Repair & Maintenance Costs	26,589	27,387	28,209	29,055	29,927	30,824	31,749	32,702	33,683	34,693	35,734	48,023	48,023
Vehicle Maintenance	No Escalation	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510	3,510
Software Support	No Escalation	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Facility Expenses	No Escalation	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170	1,170
Insurance	No Escalation	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Communication	No Escalation	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329
Internet Services	No Escalation	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208
Dues, Fees & Licenses	No Escalation	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Travel, Education, Conferences	No Escalation	5,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Invoice Processing	No Escalation	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Online Payment Fees	No Escalation	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Postage & Freight	No Escalation	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772	5,772
General Supplies & Materials	Repair & Maintenance Costs	20,345	20,955	21,584	22,231	22,898	23,586	24,293	25,021	25,772	26,545	27,342	36,745	36,745
Chlorine	Repair & Maintenance Costs	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	27,092	27,092
Office Supplies	No Escalation	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714	1,714
Meter/Back Flow Purchases	No Escalation	3,200	3,200	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Water Conservation Incentives	No Escalation	20,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Business Meals	No Escalation	150	150	150	150	150	150	150	150	150	150	150	150	150
Utilities: Natural Gas	Natural Gas Costs	3,114	3,270	3,434	3,605	3,785	3,975	4,173	4,382	4,601	4,831	5,073	8,263	8,263
Utilities: Electricity	Repair & Maintenance Costs	334,378	344,409	354,741	365,384	376,345	387,635	399,264	411,242	423,580	436,287	449,376	603,923	603,923
Utilities: Gasoline	Repair & Maintenance Costs	8,943	9,211	9,487	9,772	10,065	10,367	10,678	10,998	11,328	11,668	12,018	16,152	16,152
Pump Replacement	No Escalation	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397	23,397
Tank Maintenance	No Escalation	22,880	100,000	22,880	22,880	22,880	22,880	22,880	22,880	22,880	22,880	22,880	22,880	22,880
Ski Village														
Employee Costs														
Salaries & Wages	No Escalation	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131	8,131
Health Benefits	Benefit Cost Inflation	708	673	707	742	779	818	859	902	947	994	1,044	1,701	1,701
Payroll Taxes	No Escalation	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	1,251	
Retirement Benefits	No Escalation	506	506	506	506	506	506	506	506	506	506	506	506	
Other														
Water Sample Analysis	No Escalation	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309	3,309
System Repairs & Maintenance	Repair & Maintenance Costs	10,431	10,744	11,066	11,398	11,740	12,092	12,455	12,829	13,214	13,610	14,018	18,840	18,840
Dues, Fees & Licenses	No Escalation	150	150	150	150	150	150	150	150	150	150	150	150	
General Supplies & Materials	Repair & Maintenance Costs	1,471	1,515	1,560	1,607	1,655	1,705	1,756	1,809	1,863	1,919	1,977	2,657	2,657
Supplies - Chlorine	Repair & Maintenance Costs	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	3,612	3,612
Supplies - Safety	No Escalation	200	200	200	200	200	200	200	200	200	200	200	200	
Meter/Back Flow Purchases	No Escalation	2,040	2,040	2,040	2,040	2,040	2,040	2,040	2,040	2,040	2,040	2,040	2,040	
Utilities - Natural Gas	Natural Gas Costs	1,663	1,746	1,833	1,925	2,021	2,122	2,228	2,340	2,457	2,580	2,709	4,412	4,412
Utilities - Electricity	Natural Gas Costs	3,000	3,150	3,308	3,473	3,647	3,829	4,020	4,221	4,432	4,654	4,887	7,960	7,960
Utilities - Gasoline	Repair & Maintenance Costs	930	958	987	1,016	1,047	1,078	1,111	1,144	1,178	1,214	1,250	1,680	1,680
Tank, Pipe Replacements	No Escalation	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	5,850	
Mountain Village Sewer														
Employee Costs														
Salaries & Wages	No Escalation	\$ 52,583	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674	\$ 61,674
Health Benefits	Benefit Cost Inflation	13,172	12,513	13,139	13,796	14,485	15,210	15,970	16,769	17,607	18,487	19,412	31,620	31,620
Dependent Health Reimbursement	No Escalation	(725)	(725)	(725)	(725)	(725)	(725)	(725)	(725)	(725)	(725)	(725)	(725)	
Payroll Taxes	No Escalation	8,087	9,485	9,485	9,485	9,485	9,485	9,485	9,485	9,485	9,485	9,485	9,485	
Retirement Benefits	No Escalation	3,099	3,635	3,635	3,635	3,635	3,635	3,635	3,635	3,635	3,635	3,635	3,635	
Workers Compensation	Benefit Cost Inflation	1,042	1,094	1,149	1,206	1,266	1,330	1,396	1,466	1,539	1,616	1,697	2,764	
Other Employee Benefits	No Escalation	875	895	895	895	895	895	895	895	895	895	895	895	
Employee Costs														
Employee Appreciation	No Escalation	50	100	100	100	100	100	100	100	100	100	100	100	
System Repairs & Maintenance	No Escalation	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	
Vehicle Maintenance	No Escalation	1,082	1,082	1,082	1,082	1,082	1,082	1,082	1,082	1,082	1,082	1,082	1,082	
Sewer Line Checks	No Escalation	27,040	27,040	27,040	27,040	27,040	27,040	27,040	27,040	27,040	27,040	27,040	27,040	
Facility Expenses	No Escalation	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
Communication	No Escalation	650	650	650	650	650	650	650	650	650	650	650	650	
Travel, Education, Conferences	No Escalation	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
General Supplies & Materials	No Escalation	5,083	5,083	5,083	5,083	5,083	5,083	5,083	5,083	5,083	5,083	5,083	5,083	
Supplies - Safety Equipment	No Escalation	877	877	877	877	877	877	877	877	877	877	877	877	
Supplies - Office	No Escalation	800	800	800	800	800	800	800	800	800	800	800	800	
Regional Sewer O&M Costs	[Calculated]	336,856	378,236	391,806	405,921	420,604	435,881	451,779	468,324	485,545	503,472	522,137	576,154	
Regional Sewer O&M Overhead	[Calculated]	39,916	26,55											

Town of Mountain Village
 Utility Rate Study: Water/Sewer Utility
 Capital Improvement Program

Annual Escalation: 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
 Cumulative Escalation: 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

ID	Description
	General Capital Outlay
	Water Well Power Generators
	Vehicles
	Ski Ranches Infrastructure Replacement
	Water Rights Acquisition
	Wapiti Water Line
	Miscellaneous FF&E / Improvements
	San Miguel Pump
	Regional Sewer Capital
	Total Capital Projects Before Completion Factor
	Completion Factor Impact
	Total Capital Projects

ESCALATED COSTS														ESCALATED TOTAL
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
150,000	150,000	-	-	-	-	-	-	-	-	-	-	-	-	300,000
28,000	-	-	-	-	-	-	-	-	-	-	-	-	-	28,000
250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	5,000,000
15,000	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
175,000	-	-	-	-	-	-	-	-	-	-	-	-	-	175,000
761,250	240,275	363,681	1,202,959	2,490,125	1,267,855	1,961,892	4,252,593	829,590	858,625	888,677	919,781	951,973	951,973	37,873,187
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 1,379,250	\$ 640,275	\$ 613,681	\$ 1,452,959	\$ 2,740,125	\$ 1,517,855	\$ 2,211,892	\$ 4,502,593	\$ 1,079,590	\$ 1,108,625	\$ 1,138,677	\$ 1,169,781	\$ 1,201,973	\$ 1,201,973	\$43,391,187
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
\$ 1,379,250	\$ 640,275	\$ 613,681	\$ 1,452,959	\$ 2,740,125	\$ 1,517,855	\$ 2,211,892	\$ 4,502,593	\$ 1,079,590	\$ 1,108,625	\$ 1,138,677	\$ 1,169,781	\$ 1,201,973	\$ 1,201,973	\$43,391,187

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
 Capital Funding

Check O.K.

Capital Project Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TOTAL CAPITAL EXPENDITURES	\$ 1,379,250	\$ 640,275	\$ 613,681	\$ 1,452,959	\$ 2,740,125	\$ 1,517,855	\$ 2,211,892	\$ 4,502,593	\$ 1,079,590	\$ 1,108,625	\$ 1,138,677	\$ 1,169,781	\$ 1,201,973

Capital Financing Plan	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Outside Funding Sources: Grants/CIAC	-	-	-	-	-	-	-	-	-	-	-	-	-
Balance/Remained to be Funded	\$ 1,379,250	\$ 640,275	\$ 613,681	\$ 1,452,959	\$ 2,740,125	\$ 1,517,855	\$ 2,211,892	\$ 4,502,593	\$ 1,079,590	\$ 1,108,625	\$ 1,138,677	\$ 1,169,781	\$ 1,201,973
OTHER FUNDING SOURCES	Available Same Year? (Note: Operating transfers in year N are always assumed to be available in year N + 1.)												
Beginning Fund Balances	\$ -	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684
System Reinvestment Funding	Yes	-	-	-	-	-	-	-	-	-	-	-	-
Tap Fee Revenue Towards Capital	Yes	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000
Interest Earnings	Yes	-	12,014	14,503	17,412	16,553	9,668	22,792	6,885	8,508	10,521	12,933	12,683
Minimum Capital Balance?	Yes	(13,793)	(20,195)	(26,332)	(40,862)	(68,263)	(83,441)	(105,560)	(150,586)	(161,382)	(172,468)	(183,855)	(195,553)
Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue Bond Proceeds	-	-	-	-	-	-	3,700,000	-	-	-	-	-	-
TOTAL CAPITAL RESOURCES	\$ 93,208	\$ 2,501,655	\$ 2,995,788	\$ 3,565,918	\$ 3,365,797	\$ 1,966,743	\$ 5,571,720	\$ 4,537,508	\$ 1,329,479	\$ 1,644,590	\$ 2,037,870	\$ 2,510,911	\$ 2,448,794

Info: Working Capital Contingency Deficit

New Debt Computations	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUE BONDS													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	40,670	-	-	-	-	-	-
Reserve Required	-	-	-	-	-	-	326,348	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,067,018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 1													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 2													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Amount of Debt Issue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Loans 3													
Amount to Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Debt Service Summary	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EXISTING DEBT SERVICE													
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Principal Payments	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bond Payments Only	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW DEBT SERVICE													
Annual Interest Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 203,351	\$ 197,201	\$ 190,744	\$ 183,963	\$ 176,844	\$ 169,369	\$ 161,520
Annual Principal Payments	-	-	-	-	-	-	122,997	129,147	135,604	142,385	149,504	156,979	164,828
Total Debt Service Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348
Revenue Bond Payments Only	-	-	-	-	-	-	326,348	326,348	326,348	326,348	326,348	326,348	326,348
TOTAL DEBT SERVICE PAYMENTS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348	\$ 326,348
Total Interest Payments	-	-	-	-	-	-	203,351	197,201	190,744	183,963	176,844	169,369	161,520
Total Principal Payments	-	-	-	-	-	-	122,997	129,147	135,604	142,385	149,504	156,979	164,828
Total Revenue Bond Payments Only	-	-	-	-	-	-	326,348	326,348	326,348	326,348	326,348	326,348	326,348
Use of Debt Reserve for Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
Revenue Requirement Tests

Cash Flow Test	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
REVENUES													
Rate Revenue	\$ 2,688,952	\$ 2,729,760	\$ 2,769,745	\$ 2,810,513	\$ 2,852,080	\$ 2,894,462	\$ 2,937,674	\$ 2,981,734	\$ 3,026,657	\$ 3,072,462	\$ 3,119,165	\$ 3,166,784	\$ 3,215,338
Tap Fee Revenue Towards Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Non-Rate Revenue	13,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450
Interest Earnings: Operating & Debt Reserve Funds	16,411	2,300	2,238	2,282	2,324	2,371	2,417	4,099	4,149	4,203	4,258	4,316	7,466
<i>Total Revenue</i>	<u>\$ 2,718,813</u>	<u>\$ 2,753,511</u>	<u>\$ 2,793,433</u>	<u>\$ 2,834,245</u>	<u>\$ 2,875,855</u>	<u>\$ 2,918,283</u>	<u>\$ 2,961,542</u>	<u>\$ 3,007,283</u>	<u>\$ 3,052,257</u>	<u>\$ 3,098,115</u>	<u>\$ 3,144,873</u>	<u>\$ 3,192,550</u>	<u>\$ 3,244,254</u>
EXPENSES													
Cash Operating Expenses	\$ 1,865,843	\$ 1,815,200	\$ 1,850,916	\$ 1,885,205	\$ 1,923,029	\$ 1,960,704	\$ 2,001,377	\$ 2,042,044	\$ 2,085,857	\$ 2,129,786	\$ 2,177,023	\$ 2,224,515	\$ 2,275,493
Existing Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
New Debt Service	-	-	-	-	-	-	326,348	326,348	326,348	326,348	326,348	326,348	326,348
System Reinvestment Funding	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions Required to Meet Min. Debt Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-
Additions Required to Meet Min. Operating Reserve	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Total Expenses</i>	<u>\$ 1,865,843</u>	<u>\$ 1,815,200</u>	<u>\$ 1,850,916</u>	<u>\$ 1,885,205</u>	<u>\$ 1,923,029</u>	<u>\$ 1,960,704</u>	<u>\$ 2,327,725</u>	<u>\$ 2,368,392</u>	<u>\$ 2,412,205</u>	<u>\$ 2,456,134</u>	<u>\$ 2,503,372</u>	<u>\$ 2,550,863</u>	<u>\$ 2,601,841</u>
NET CASH FLOW (DEFICIENCY)	\$ 852,970	\$ 938,310	\$ 942,517	\$ 949,040	\$ 952,825	\$ 957,579	\$ 633,816	\$ 638,891	\$ 640,052	\$ 641,981	\$ 641,501	\$ 641,687	\$ 642,413

Coverage Test - with Tap Fees	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ALLOWABLE REVENUES													
Rate Revenue	\$ 2,688,952	\$ 2,729,760	\$ 2,769,745	\$ 2,810,513	\$ 2,852,080	\$ 2,894,462	\$ 2,937,674	\$ 2,981,734	\$ 3,026,657	\$ 3,072,462	\$ 3,119,165	\$ 3,166,784	\$ 3,215,338
Other Revenue	13,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450	21,450
Tap Fee Revenue	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000
Interest Earnings - All Funds	16,411	14,315	16,741	19,694	18,877	12,038	11,722	26,891	11,034	12,711	14,779	17,248	20,149
<i>Total Revenue</i>	<u>\$ 2,825,813</u>	<u>\$ 2,872,525</u>	<u>\$ 2,914,936</u>	<u>\$ 2,958,657</u>	<u>\$ 2,999,407</u>	<u>\$ 3,034,951</u>	<u>\$ 3,077,847</u>	<u>\$ 3,137,075</u>	<u>\$ 3,166,142</u>	<u>\$ 3,213,623</u>	<u>\$ 3,262,394</u>	<u>\$ 3,312,483</u>	<u>\$ 3,363,937</u>
EXPENSES													
Cash Operating Expenses	\$ 1,865,843	\$ 1,815,200	\$ 1,850,916	\$ 1,885,205	\$ 1,923,029	\$ 1,960,704	\$ 2,001,377	\$ 2,042,044	\$ 2,085,857	\$ 2,129,786	\$ 2,177,023	\$ 2,224,515	\$ 2,275,493
Revenue Bond Debt Service	-	-	-	-	-	-	326,348	326,348	326,348	326,348	326,348	326,348	326,348
Revenue Bond Coverage Requirement at 1.5	-	-	-	-	-	-	163,174	163,174	163,174	163,174	163,174	163,174	163,174
<i>Total Expenses</i>	<u>\$ 1,865,843</u>	<u>\$ 1,815,200</u>	<u>\$ 1,850,916</u>	<u>\$ 1,885,205</u>	<u>\$ 1,923,029</u>	<u>\$ 1,960,704</u>	<u>\$ 2,490,899</u>	<u>\$ 2,531,566</u>	<u>\$ 2,575,379</u>	<u>\$ 2,619,308</u>	<u>\$ 2,666,546</u>	<u>\$ 2,714,037</u>	<u>\$ 2,765,015</u>
Coverage	n/a	n/a	n/a	n/a	n/a	n/a	3.30	3.36	3.31	3.32	3.33	3.33	3.34
COVERAGE SURPLUS (DEFICIENCY)	\$ 959,970	\$ 1,057,324	\$ 1,064,020	\$ 1,073,452	\$ 1,076,378	\$ 1,074,247	\$ 586,947	\$ 605,509	\$ 590,763	\$ 594,315	\$ 595,848	\$ 598,446	\$ 598,923

Maximum Revenue Deficiency	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sufficiency Test Driving the Deficiency	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>
Maximum Revenue Deficiency (Surplus)	\$ (852,970)	\$ (938,310)	\$ (942,517)	\$ (949,040)	\$ (952,825)	\$ (957,579)	\$ (586,947)	\$ (605,509)	\$ (590,763)	\$ (594,315)	\$ (595,848)	\$ (598,446)	\$ (598,923)
less: Incremental Revenue From Prior Rate Increases	-	-	(69,244)	(142,282)	(219,298)	(300,482)	(386,035)	(476,163)	(571,087)	(671,035)	(776,245)	(886,967)	(1,003,464)
Net Revenue Deficiency (Surplus)	\$ (852,970)	\$ (938,310)	\$ (1,011,761)	\$ (1,091,322)	\$ (1,172,124)	\$ (1,258,062)	\$ (972,982)	\$ (1,081,672)	\$ (1,161,850)	\$ (1,265,350)	\$ (1,372,093)	\$ (1,485,413)	\$ (1,602,387)

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
Revenue Requirement Tests

Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rate Revenue @ Existing Rates	\$ 2,688,952	\$ 2,729,760	\$ 2,769,745	\$ 2,810,513	\$ 2,852,080	\$ 2,894,462	\$ 2,937,674	\$ 2,981,734	\$ 3,026,657	\$ 3,072,462	\$ 3,119,165	\$ 3,166,784	\$ 3,215,338
Revenues from Prior Rate Increases	-	-	69,244	142,282	219,298	300,482	386,035	476,163	571,087	671,035	776,245	886,967	1,003,464
Rate Revenue Before Rate Increase (incl. previous increases)	2,688,952	2,729,760	2,838,989	2,952,796	3,071,379	3,194,945	3,323,709	3,457,897	3,597,745	3,743,497	3,895,410	4,053,752	4,218,803
Required Annual Rate Increase	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Number of Months New Rates Will Be In Effect	12	12	12	12	12	12	12	12	12	12	12	12	12
Info: % Increase to Generate Required Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Policy Induced Rate Increases	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
ANNUAL RATE INCREASE	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
CUMULATIVE RATE INCREASE	0.00%	2.50%	5.06%	7.69%	10.38%	13.14%	15.97%	18.87%	21.84%	24.89%	28.01%	31.21%	34.49%

Impacts of Rate Increases	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sufficiency Test Driving the Deficiency	None	None	None	None	None	None	None	None	None	None	None	None	None
Rate Revenues After Rate Increase	\$ 2,688,952	\$ 2,798,004	\$ 2,909,964	\$ 3,026,616	\$ 3,148,163	\$ 3,274,818	\$ 3,406,802	\$ 3,544,345	\$ 3,687,688	\$ 3,837,084	\$ 3,992,795	\$ 4,155,096	\$ 4,324,273
Full Year Rate Revenues After Rate Increase	2,688,952	2,798,004	2,909,964	3,026,616	3,148,163	3,274,818	3,406,802	3,544,345	3,687,688	3,837,084	3,992,795	4,155,096	4,324,273
Partial Year Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Flow After Rate Increase	\$ 852,970	\$ 1,006,554	\$ 1,082,735	\$ 1,165,142	\$ 1,248,908	\$ 1,337,935	\$ 1,102,944	\$ 1,201,502	\$ 1,301,083	\$ 1,406,603	\$ 1,515,131	\$ 1,629,998	\$ 1,751,348
Coverage After Rate Increase: Bonded Debt	n/a	n/a	n/a	n/a	n/a	n/a	4.74	5.08	5.34	5.66	6.00	6.36	6.73
Coverage After Rate Increase: Total Debt	n/a	n/a	n/a	n/a	n/a	n/a	4.74	5.08	5.34	5.66	6.00	6.36	6.73

Debt Financing Assumptions	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Net Revenue Bond Proceeds: Automatic Calculation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Revenue Bond Proceeds: Override*	\$ -						\$ 3,700,000						
Other Loans 1 Proceeds													
Other Loans 2 Proceeds													
Other Loans 3 Proceeds													

*Model will automatically calculate revenue bond debt if 'Revenue Bond Proceeds: Override' is blank. A zero does not equal a "blank."

Fund Balance Impacts	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ending Fund Balance: Operating Reserve	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 1,166,799	\$ 561,080
Actual Days of Operations & Maintenance	90 days	191 days	90 days										
Minimum Target: Operating Reserve	306,714	298,389	304,260	309,897	316,114	322,307	328,994	335,678	342,881	350,102	357,867	365,674	374,054
Minimum Target: Operating Reserve (in Days of O&M)	60 days												
Ending Fund Balance: Capital Reserve	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684	\$ 3,811,460
Minimum Target: Capital Reserve	13,793	20,195	26,332	40,862	68,263	83,441	105,560	150,586	161,382	172,468	183,855	195,553	207,573
Total Ending Operating and Capital Cash (days)	560 days	673 days	777 days	731 days	457 days	436 days	921 days	336 days	388 days	451 days	524 days	608 days	701 days
Minimum Target	150 days												

Town of Mountain Village
Utility Rate Study: Water/Sewer Utility
Fund Activity

Funds	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPERATING RESERVE													
Beginning Balance	\$ 3,282,187	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 1,166,799
plus: Net Cash Flow after Rate Increase	852,970	1,006,554	1,082,735	1,165,142	1,248,908	1,337,935	1,102,944	1,201,502	1,301,083	1,406,603	1,515,131	1,629,998	1,751,348
less: Transfer of Surplus to Capital Fund	(3,675,086)	(1,019,042)	(1,073,929)	(1,156,687)	(1,239,582)	(1,328,646)	(1,092,914)	(1,191,475)	(1,290,279)	(1,395,772)	(1,503,483)	(1,000,000)	(2,357,066)
Ending Balance	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 1,166,799	\$ 561,080
<i>Minimum Target Balance: 60 days</i>	\$ 306,714	\$ 298,389	\$ 304,260	\$ 309,897	\$ 316,114	\$ 322,307	\$ 328,994	\$ 335,678	\$ 342,881	\$ 350,102	\$ 357,867	\$ 365,674	\$ 374,054
<i>Maximum Target Balance: 90 days</i>	\$ 460,071	\$ 447,584	\$ 456,390	\$ 464,845	\$ 474,172	\$ 483,461	\$ 493,490	\$ 503,518	\$ 514,321	\$ 525,153	\$ 536,800	\$ 548,511	\$ 561,080
<i>Actual Days of Cash Achieved</i>	90 days	191 days	90 days										
CAPITAL RESERVE													
Beginning Balance	\$ -	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684
plus: System Reinvestment Funding	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	3,675,086	1,019,042	1,073,929	1,156,687	1,239,582	1,328,646	1,092,914	1,191,475	1,290,279	1,395,772	1,503,483	1,000,000	2,357,066
plus: Capital Grants / Other Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Tap Fee Revenue Towards Capital	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000	107,000
plus: Revenue Bond Proceeds	-	-	-	-	-	-	3,700,000	-	-	-	-	-	-
plus: Other Loans 1 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 2 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Other Loans 3 Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
plus: Interest Earnings	-	12,014	14,503	17,412	16,553	9,668	9,305	22,792	6,885	8,508	10,521	12,933	12,683
Total Funding Sources	\$ 3,782,086	\$ 3,540,892	\$ 4,096,048	\$ 4,763,467	\$ 4,673,642	\$ 3,378,831	\$ 6,770,195	\$ 5,879,569	\$ 2,781,140	\$ 3,212,830	\$ 3,725,209	\$ 3,706,464	\$ 5,013,433
less: Capital Expenditures	(1,379,250)	(640,275)	(613,681)	(1,452,959)	(2,740,125)	(1,517,855)	(2,211,892)	(4,502,593)	(1,079,590)	(1,108,625)	(1,138,677)	(1,169,781)	(1,201,973)
Ending Capital Fund Balance	\$ 2,402,836	\$ 2,900,617	\$ 3,482,367	\$ 3,310,508	\$ 1,933,517	\$ 1,860,975	\$ 4,558,303	\$ 1,376,976	\$ 1,701,551	\$ 2,104,205	\$ 2,586,532	\$ 2,536,684	\$ 3,811,460
<i>Minimum Target Balance</i>	\$ 13,793	\$ 20,195	\$ 26,332	\$ 40,862	\$ 68,263	\$ 83,441	\$ 105,560	\$ 150,586	\$ 161,382	\$ 172,468	\$ 183,855	\$ 195,553	\$ 207,573
SUMMARY													
Combined Beginning Balance	\$ 3,282,187	\$ 2,862,907	\$ 3,348,200	\$ 3,938,758	\$ 3,775,353	\$ 2,407,689	\$ 2,344,437	\$ 5,378,142	\$ 2,206,842	\$ 2,542,220	\$ 2,955,705	\$ 3,449,680	\$ 4,029,830
Plus: Inflows	\$ 4,635,055	\$ 2,144,610	\$ 2,278,167	\$ 2,446,241	\$ 2,612,042	\$ 2,783,249	\$ 6,338,511	\$ 2,522,768	\$ 2,705,247	\$ 2,917,883	\$ 3,136,135	\$ 2,749,931	\$ 4,228,097
Less: Outflows	\$ (5,054,336)	\$ (1,659,317)	\$ (1,687,610)	\$ (2,609,646)	\$ (3,979,707)	\$ (2,846,501)	\$ (3,304,806)	\$ (5,694,068)	\$ (2,369,869)	\$ (2,504,397)	\$ (2,642,161)	\$ (2,169,781)	\$ (3,559,039)
Combined Ending Balance	\$ 2,862,907	\$ 3,348,200	\$ 3,938,758	\$ 3,775,353	\$ 2,407,689	\$ 2,344,437	\$ 5,378,142	\$ 2,206,842	\$ 2,542,220	\$ 2,955,705	\$ 3,449,680	\$ 4,029,830	\$ 4,698,888
<i>Net Change in Reserves</i>	\$ (419,280)	\$ 485,293	\$ 590,557	\$ (163,405)	\$ (1,367,664)	\$ (63,252)	\$ 3,033,705	\$ (3,171,300)	\$ 335,378	\$ 413,486	\$ 493,975	\$ 580,150	\$ 669,058
TOTAL AVAILABLE CASH TEST: DAYS OF O&M													
Operating & Capital Ending Balance	\$ 2,862,907	\$ 3,348,200	\$ 3,938,758	\$ 3,775,353	\$ 2,407,689	\$ 2,344,437	\$ 5,051,793	\$ 1,880,494	\$ 2,215,871	\$ 2,629,357	\$ 3,123,332	\$ 3,703,482	\$ 4,372,540
Ending Total Days of O&M	560 days	673 days	777 days	731 days	457 days	436 days	921 days	336 days	388 days	451 days	524 days	608 days	701 days
<i>Target: 150 Days of O&M</i>	\$ 766,785	\$ 745,973	\$ 760,651	\$ 774,742	\$ 790,286	\$ 805,769	\$ 822,484	\$ 839,196	\$ 857,201	\$ 875,254	\$ 894,667	\$ 914,184	\$ 935,134

Appendix C:

Project Presentations

Town of Telluride



Wastewater Financial Outlook

Jason Mumm, FCS Group

April 10, 2018



Agenda

- ◆ **Introductions**
- ◆ **Overview of Rate Study**
- ◆ **Preliminary Findings: Projected Revenue Requirements**
- ◆ **Next Steps**

Introductions



Our Team

- ◆ **Jason Mumm – Project Manager**
- ◆ **Chris Gonzalez – Asst. Proj. Manager / Technical Lead**
- ◆ **Melanie Hobart – Consultant (not on phone today)**

Overview

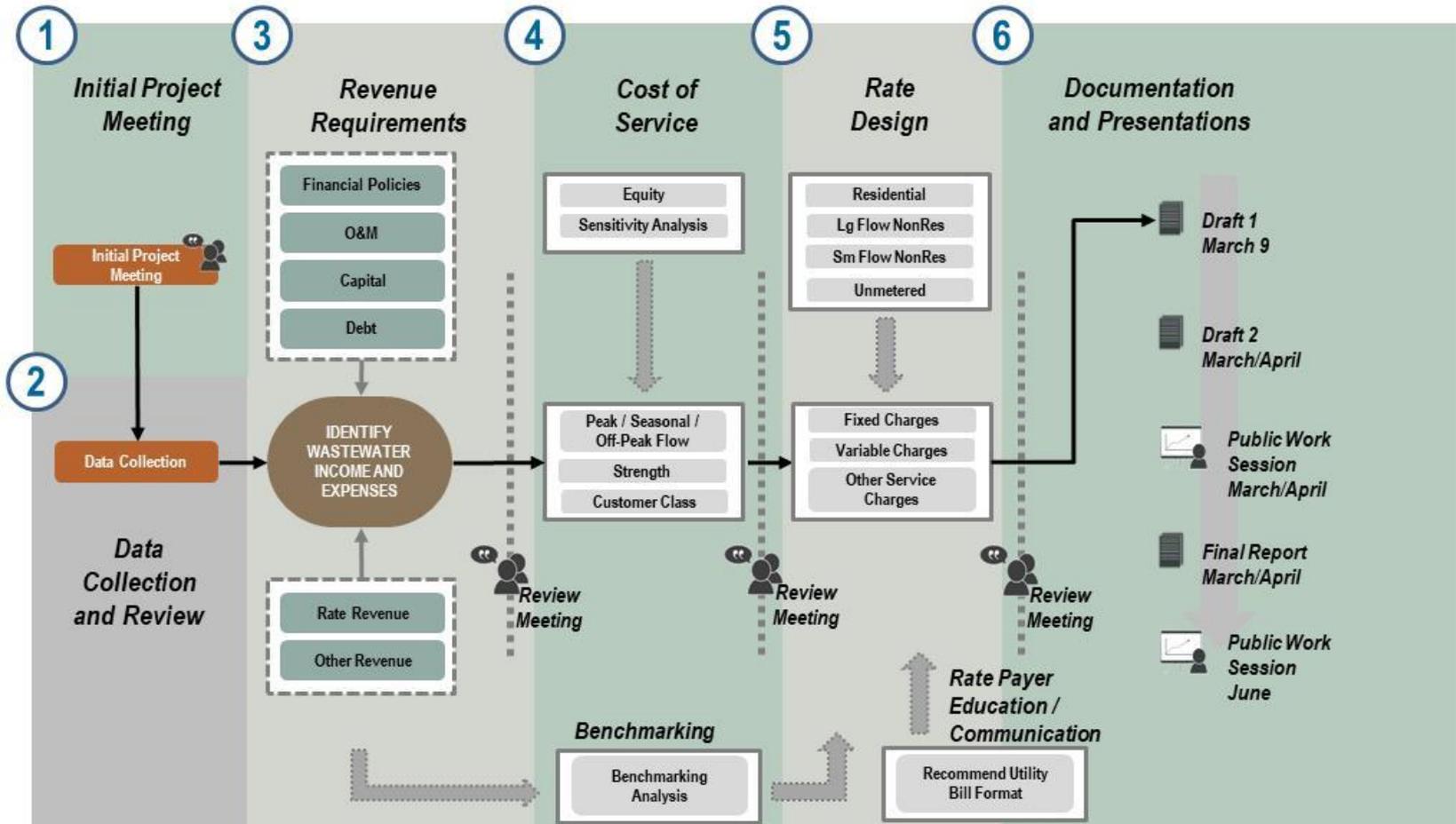


Rate Study Overview

- ✓ **Task 1 – Kickoff**
- ✓ **Task 2 – Data Collection and Validation**
- ◆ **Task 3 – Revenue Requirement** ←  
- ◆ **Task 4 – Cost of Service**
- ◆ **Task 5 – Rate Design**



Study Schematic



Preliminary Findings



Scenarios

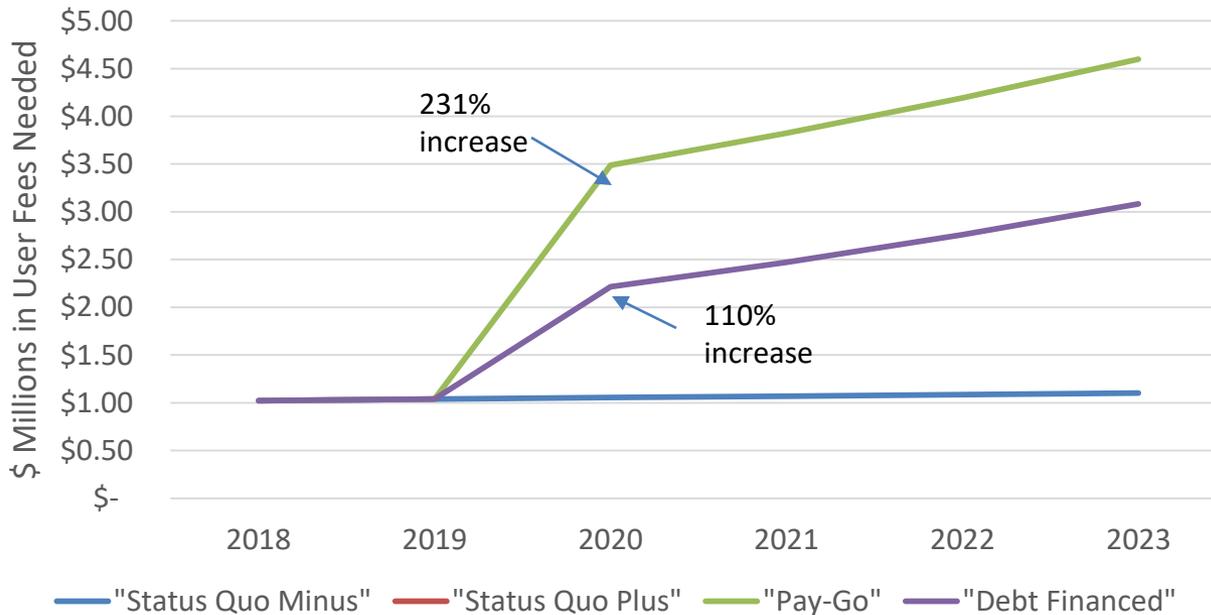
- ◆ **“Status Quo Minus”** - Assumes operations as is with no capital improvement plan and no rate increases.
- ◆ **“Status Quo Plus”** – Assumes operations as is with CIP and no rate increases.
- ◆ **“Pay-go”** - assumes the capital projects are funded entirely with revenue from rate increases with no debt whatsoever.
- ◆ **“Debt Financing for CIP”** - assumes all CIP projects are debt financed with new debt service incurred the same year the proceeds distributed to project costs.

These scenarios help us “bracket” the range of policies assuming a full CIP in terms of cost and schedule.



Summary of Findings

Increase in User Fees Required for Each Scenario

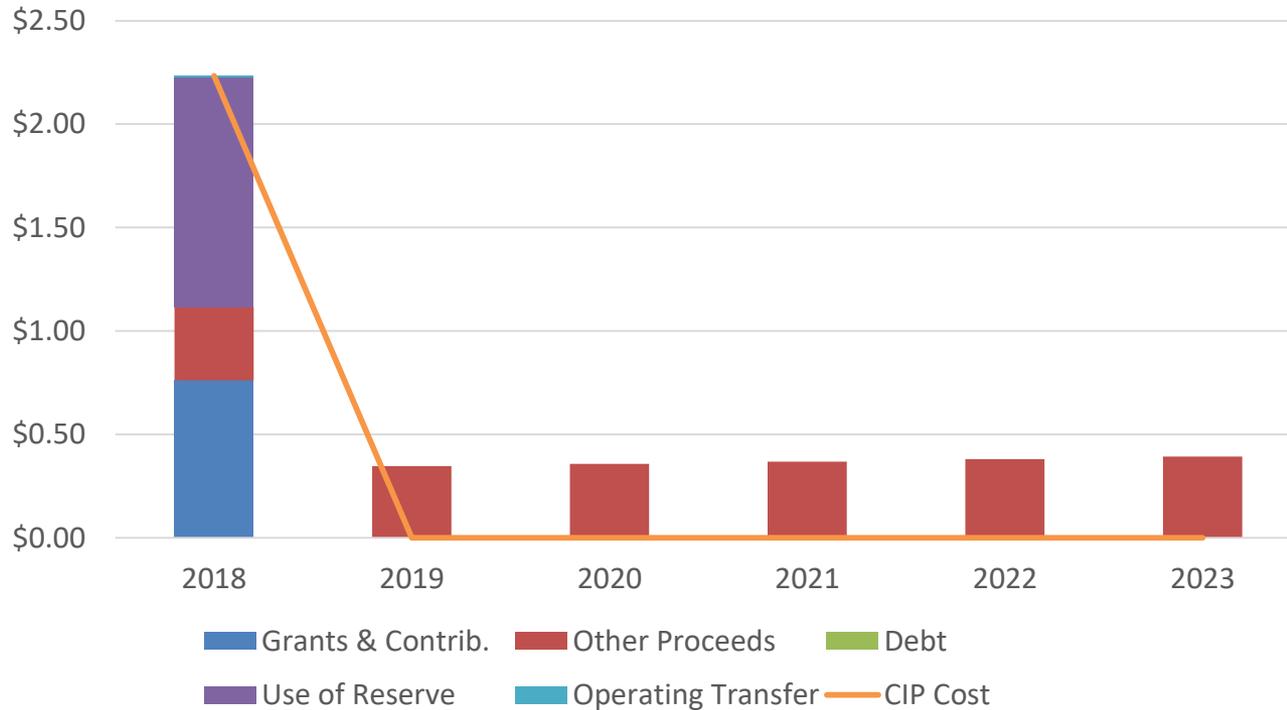


As long as the CIP is to be funded as-is, substantial rate increases will be necessary



Scenario: “Status Quo– Minus”

Capital Stack to Finance the CIP: “Status-Quo Minus” Scenario

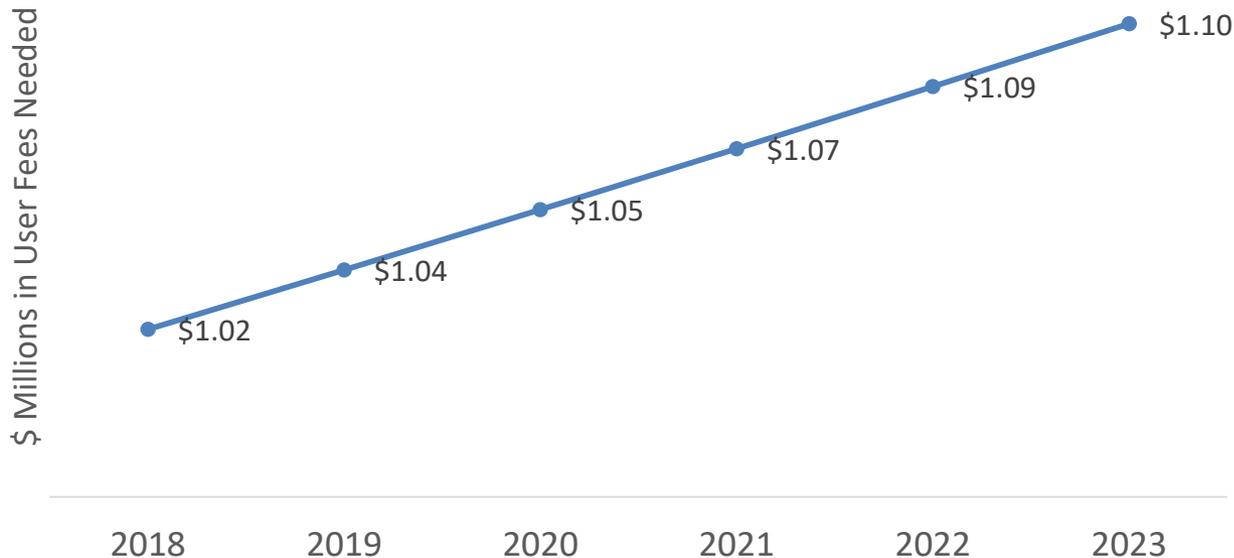


In this scenario, there is no CIP to fund and therefore no financing sources needed



Scenario: “Status Quo– Minus”

Required Increases to User Revenue: “Status Quo-Minus” Scenario

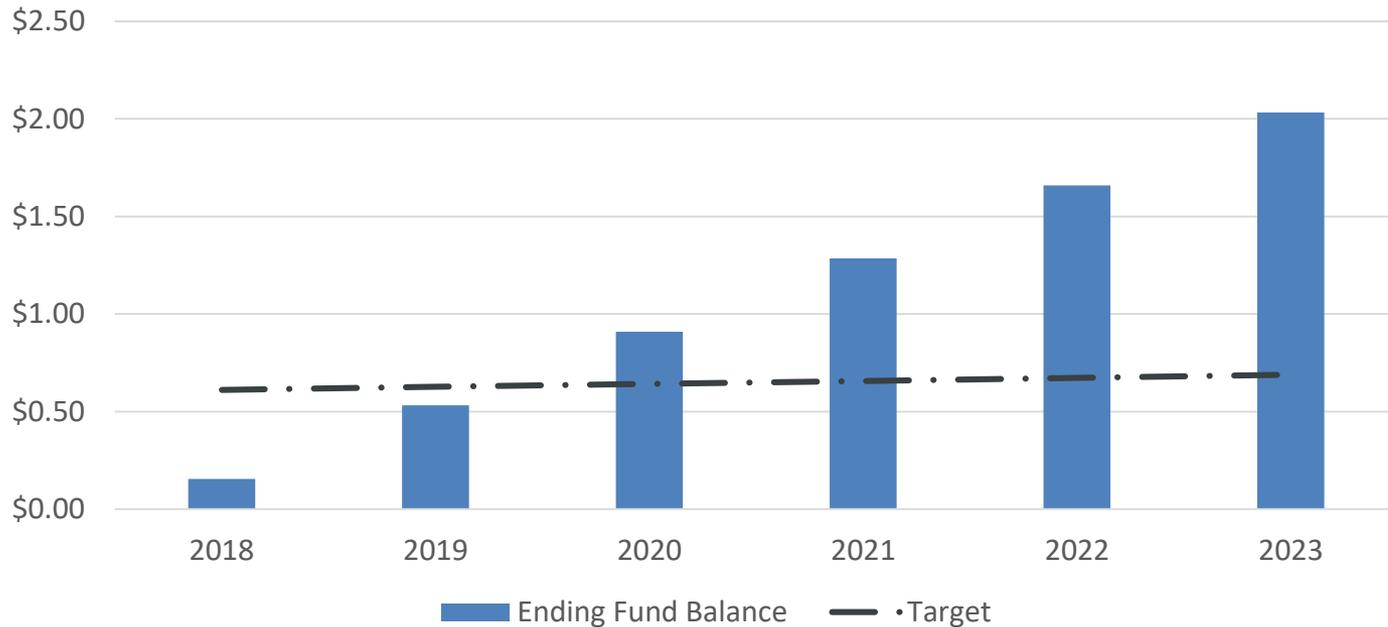


Revenues increase from growth in customer accounts – no increase in the rates is necessary considering no CIP



Scenario: “Status Quo– Minus”

Projected Total Fund Reserves: “Status Quo-Minus” Scenario

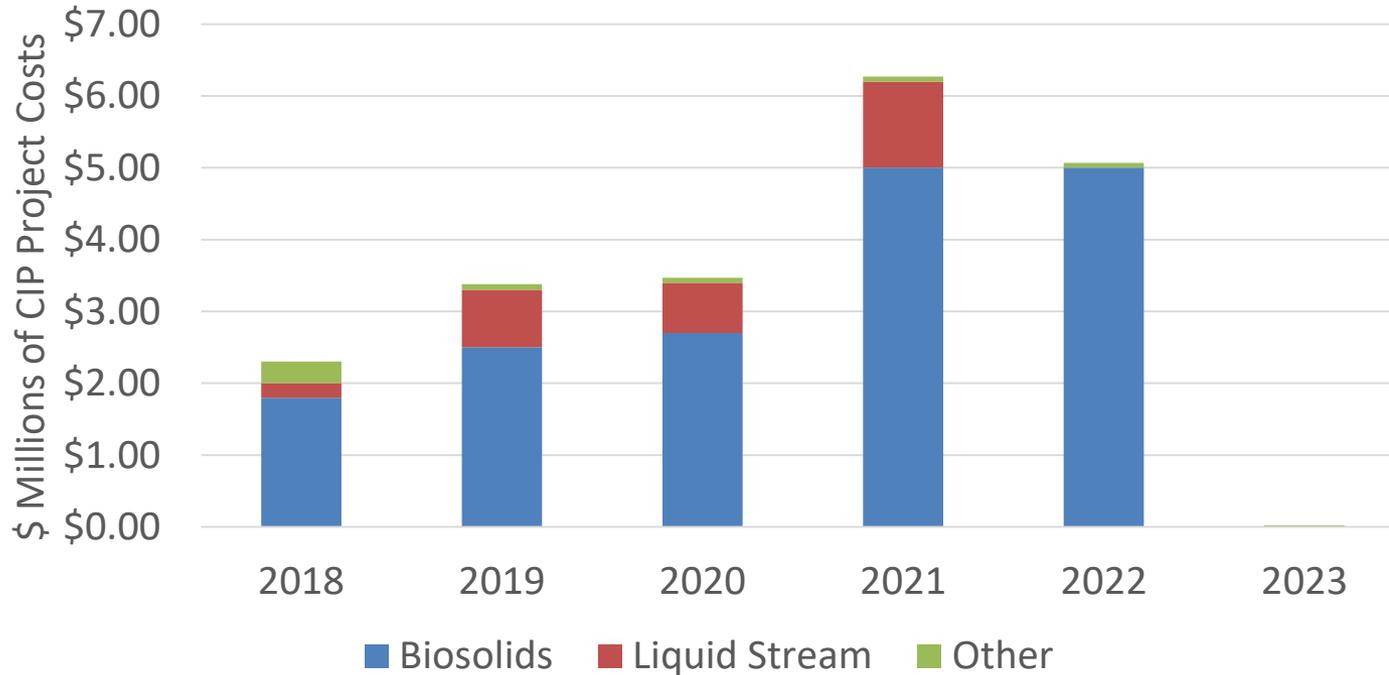


Operating cash flow is NEGATIVE at present rates – fund balance increases here due to tap fee receipts



Capital Improvements Plan

Projected Capital Projects from Master Plan (current dollars)

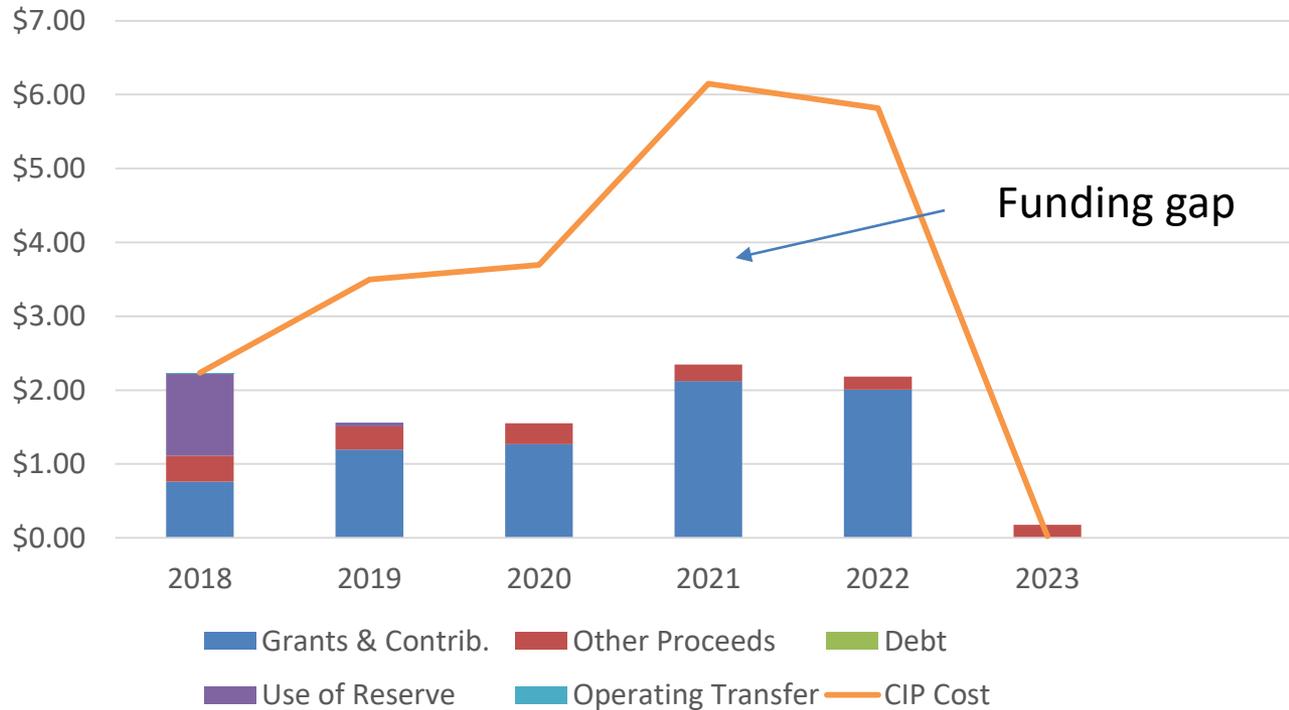


There are significant additional CIP projects in out years –nearly \$40 million – but the urgent projects are the immediate concern.



Scenario: "Status Quo- Plus"

Capital Stack to Finance the CIP: "Status-Quo Plus" Scenario

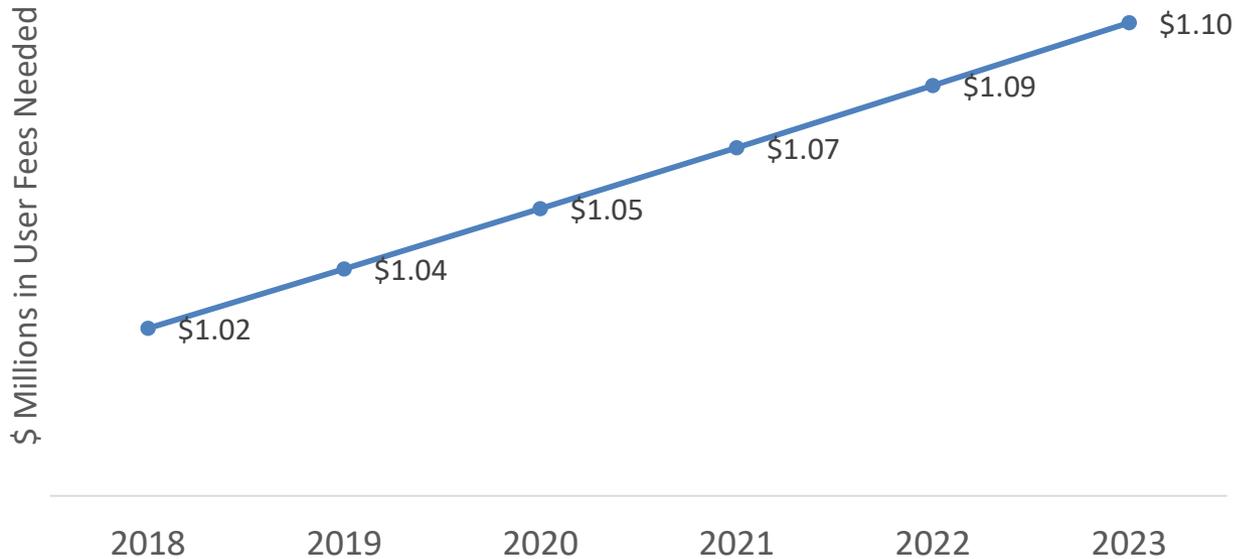


Primary funding sources come from contributions from Mtn. Village and Connection Fees.



Scenario: “Status Quo– Plus”

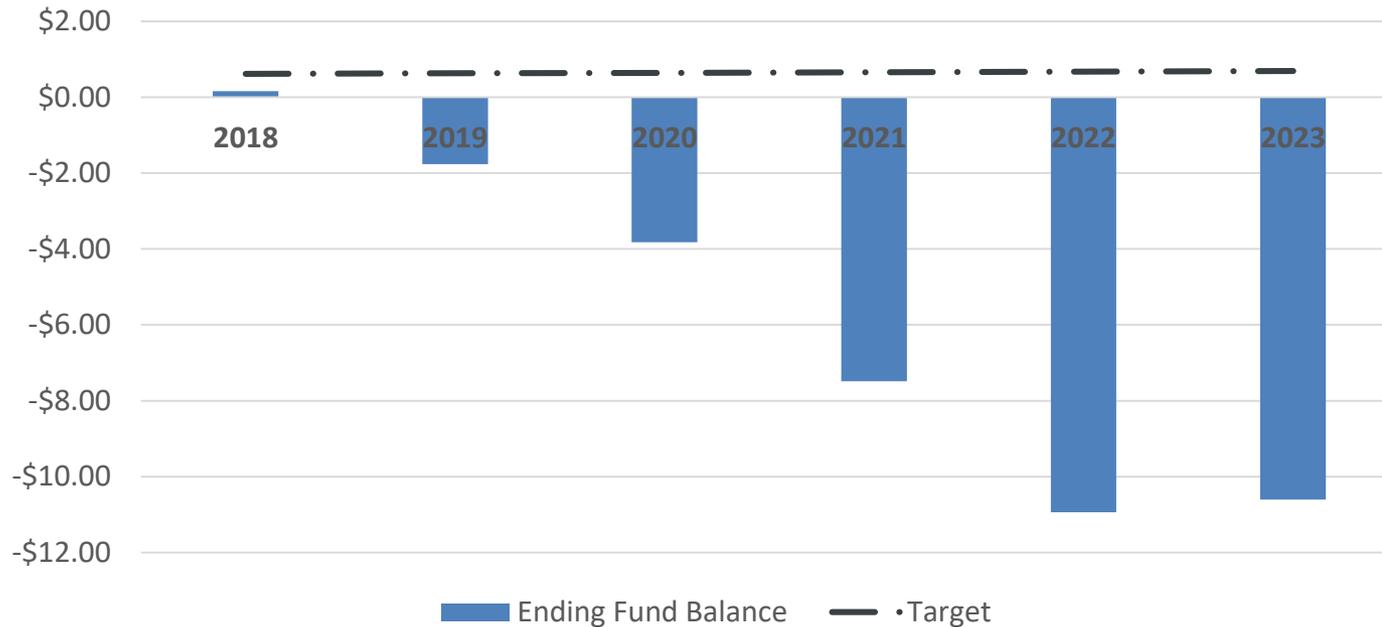
Required Increases to User Revenue: “Status Quo-Plus” Scenario



Revenues increase from growth in customer accounts – no increase in the rates is necessary considering no CIP



Scenario: "Status Quo- Plus"

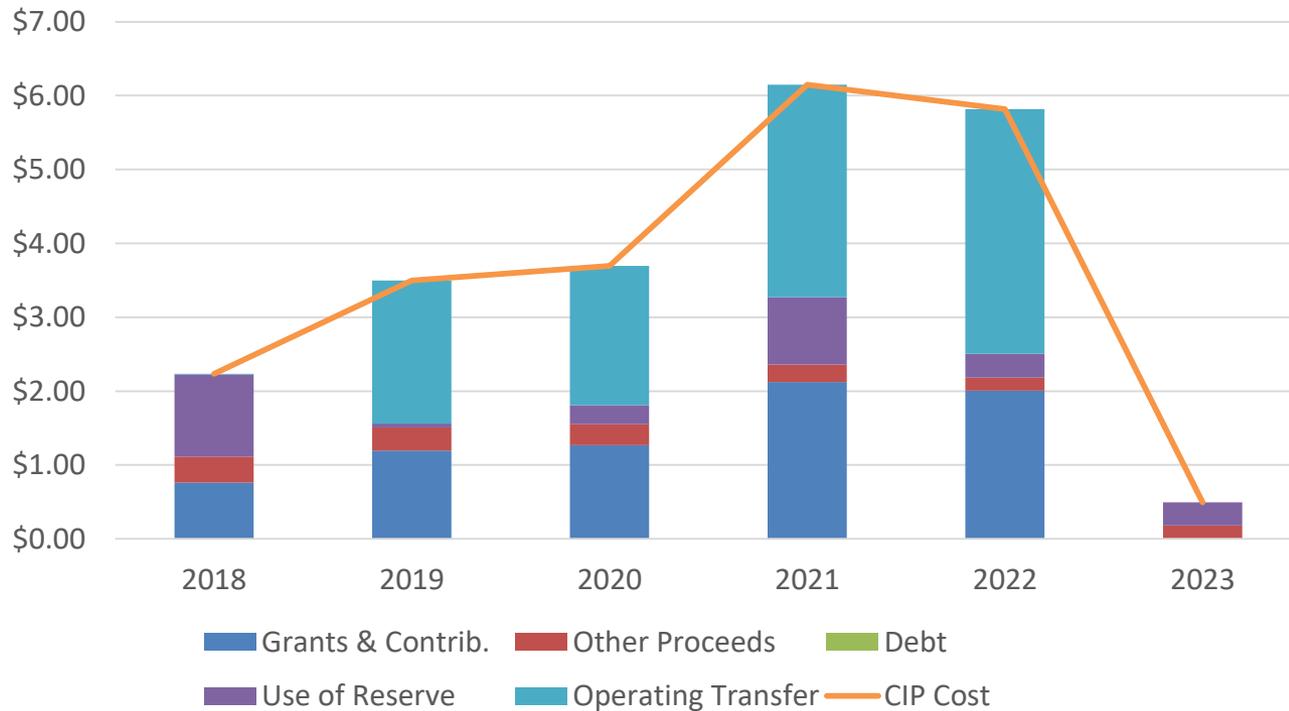


This scenario is not feasible, it's shown for the sole purpose of illustrating the challenges for our discussion



Scenario: "Pay-Go"

Capital Stack to Finance the CIP: "Pay-Go" Scenario



Plan requires significant operating fund transfers as primary funding source for CIP



Scenario: "Pay-Go"

Required Increases to User Revenue: "Pay-Go" Scenario

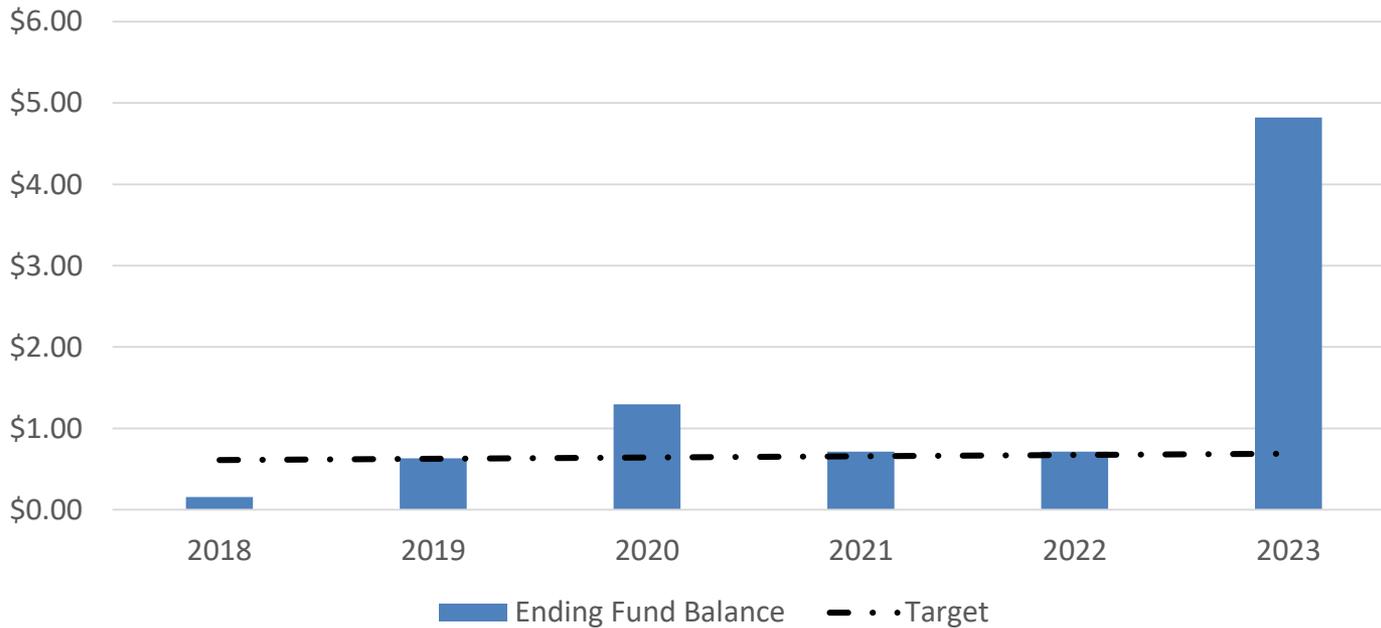


Rates would need to triple by 2020 and continue increasing at a rate > inflation through 2023 and further



Scenario: "Pay-Go"

Projected Total Fund Reserves: "Pay-Go" Scenario

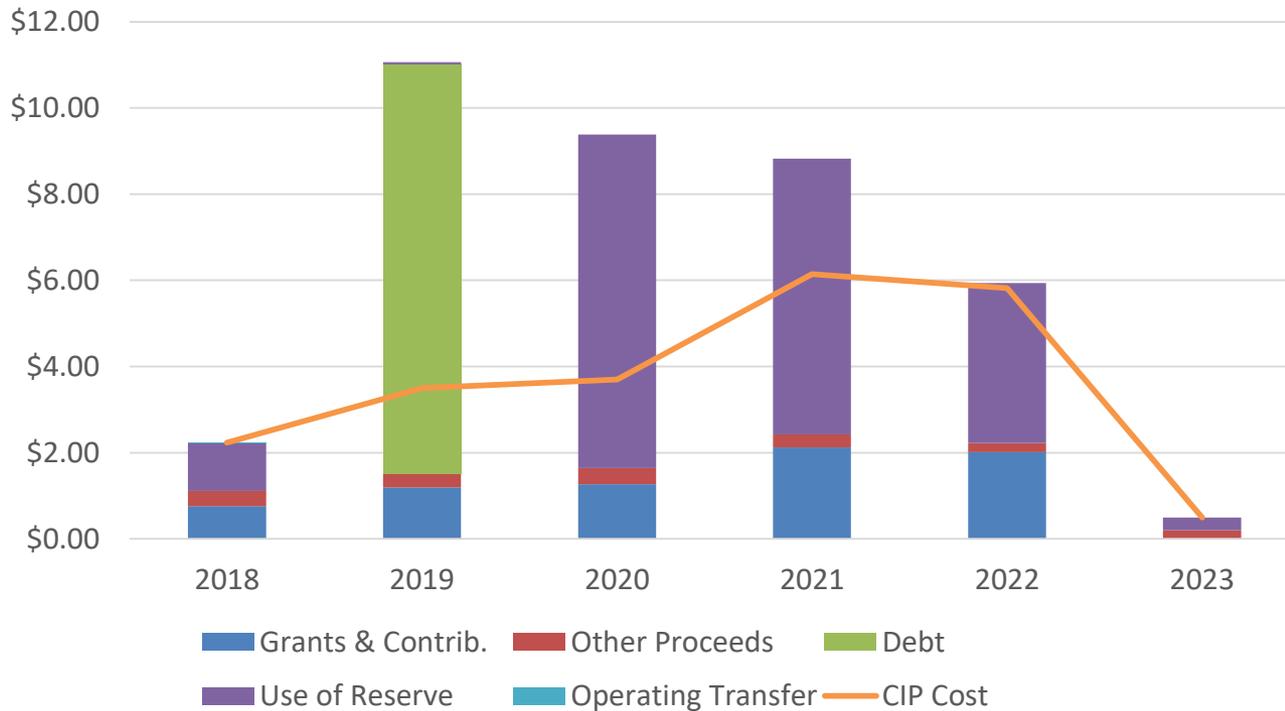


Rates would be set to a level sufficient to pay for all costs while leaving an appropriate reserve for working capital



Scenario: “Debt Financed”

Capital Stack to Finance the CIP: “Debt Financed” Scenario

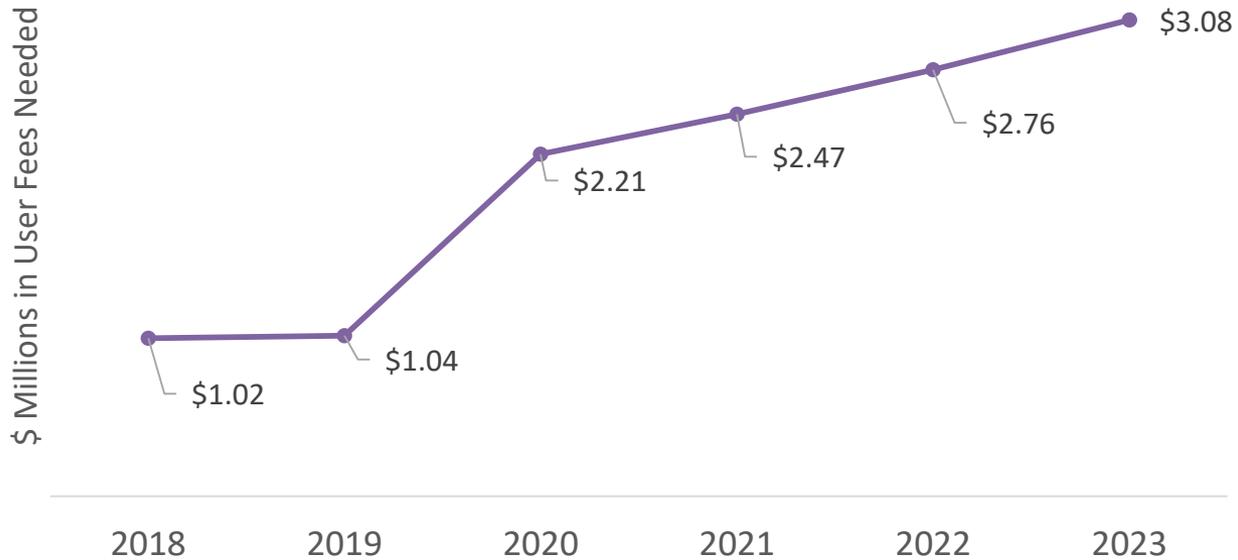


Debt issue in 2019 creates financing capacity to fund the rest of the CIP through 2023



Scenario: “Debt Financed”

Required Increases to User Revenue: “Debt Financed” Scenario

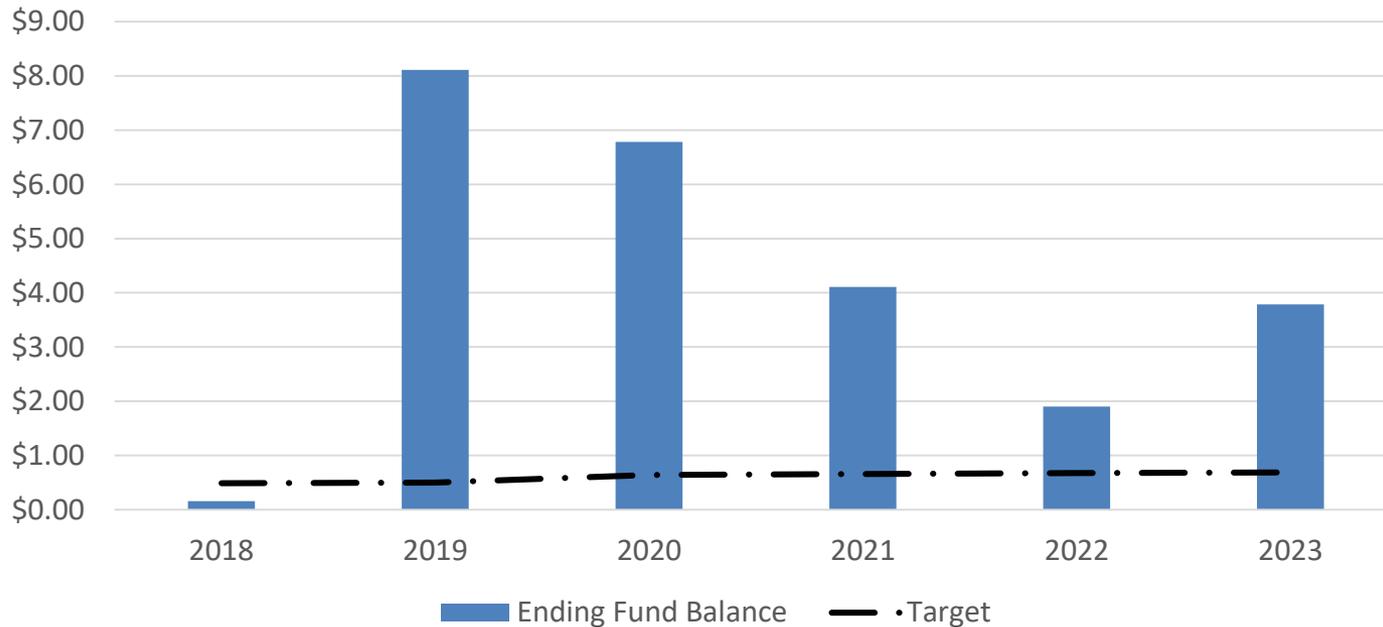


Rates would need to more than double by 2020 and continue increasing at about 10% per year



Scenario: “Debt Financed”

Projected Total Fund Reserves: “Debt Financed” Scenario



Fund balance is increased from debt proceeds and drawn down as CIP expenses are paid

Next Steps



What's Next

- ◆ **We need guidance from you:**
 - Do you want to adopt any of the scenarios we've shown?
 - If not, what is the alternative proposal for CIP and Financing?

- ◆ **Finalize revenue requirements**

- ◆ **Cost of Service Analysis**
 - We are working on a table of flows and loadings by class that we'd like you to review and approve

- ◆ **Rate Proposals**

TOWN OF TELLURIDE



Wastewater Rate Study

Presented by:
Jason Mumm, Executive Consultant

June 12, 2018



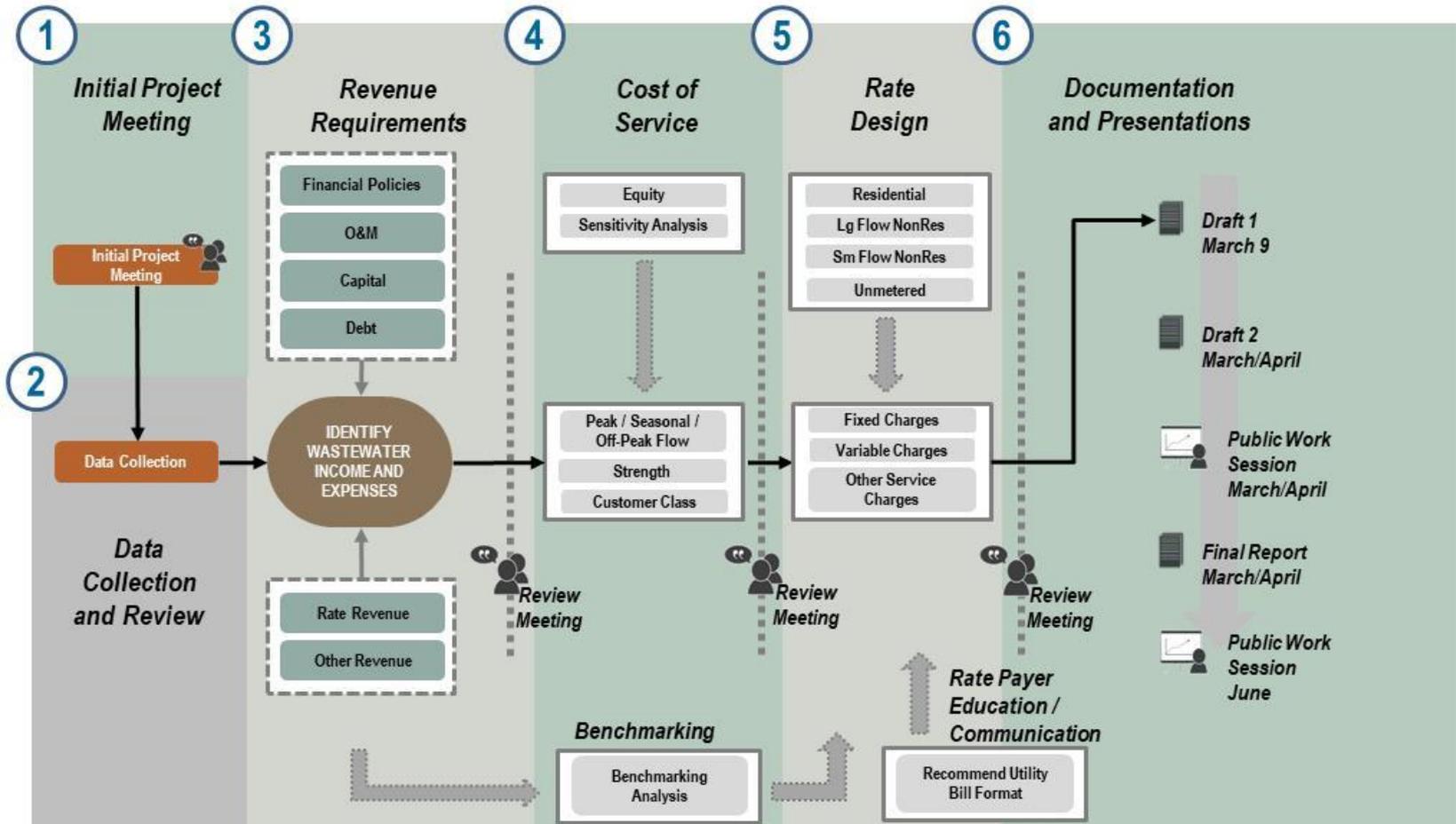


Agenda

- ◆ **Overview of Study Process**
- ◆ **Fiscal Policies & Other Assumptions**
- ◆ **Summary of Findings**
 - Rate Forecast Scenarios
 - Comparative Survey
- ◆ **Questions/Discussion**



Study Schematic





Utility Fiscal Policies

Fiscal Policy	Purpose	Target
Operating Reserve	Liquidity cushion to accommodate fluctuations in cash flow	90 Days of O&M Expenses* (2019 Target: \$376,000)
Capital Reserve	To address emergency repairs and unanticipated capital repairs	1% of the cost of system assets* (2019 Target: \$172,000)
System Reinvestment	Promote ongoing system integrity through reinvestment in the system	Annual Depreciation Expense: \$315,000 2019-23 Funding: \$72,000 – \$743,000/year
Debt Service Coverage	Compliance with debt covenants, preserving credit rating for future debt issuance	(N/A – Town does not have any sewer utility debt requiring coverage)

*Combined operating/capital target balance: 150 days of O&M expenses



Key Assumptions

Annual Cost Inflation

- General: 2.5%
- Salaries & Benefits: 4.0%
- Construction: 3.5%

Operating Forecast

- Generally based on 2018 Budget
 - Adjusted for inflation in future years
 - Rate revenues based on projected customer counts and usage
 - Mountain Village payments set at 35% of treatment-related operating/capital costs

Annual Growth Rates

- 1.5% per year based on WWTP Master Plan
 - \approx 16 – 17 customers per year

Debt Issuance

- Revenue Bonds
 - 30-Year Term
 - 4.0% Interest Rate
 - Issuance Cost: 1.0% of Amount Issued

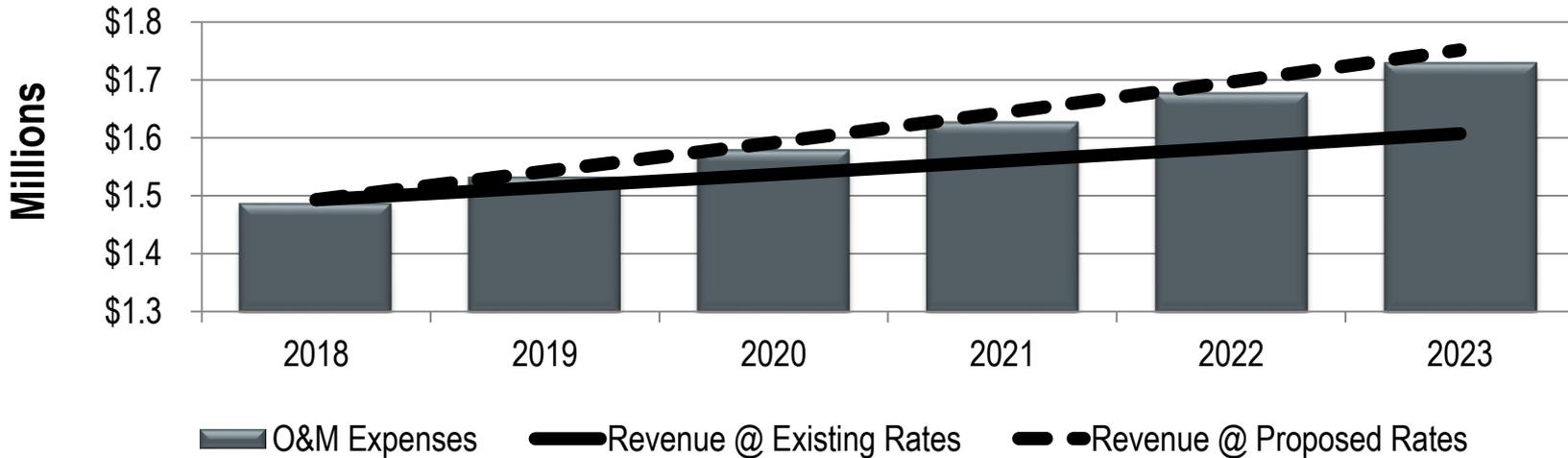


Summary of Scenarios Considered

- ◆ **Status Quo (Operating Only – No CIP)**
- ◆ **With CIP (3 Capital Funding Scenarios):**
 - Cash Only
 - Maximum Debt
 - Hybrid (Cash & Debt)



Findings: “Status Quo” Scenario

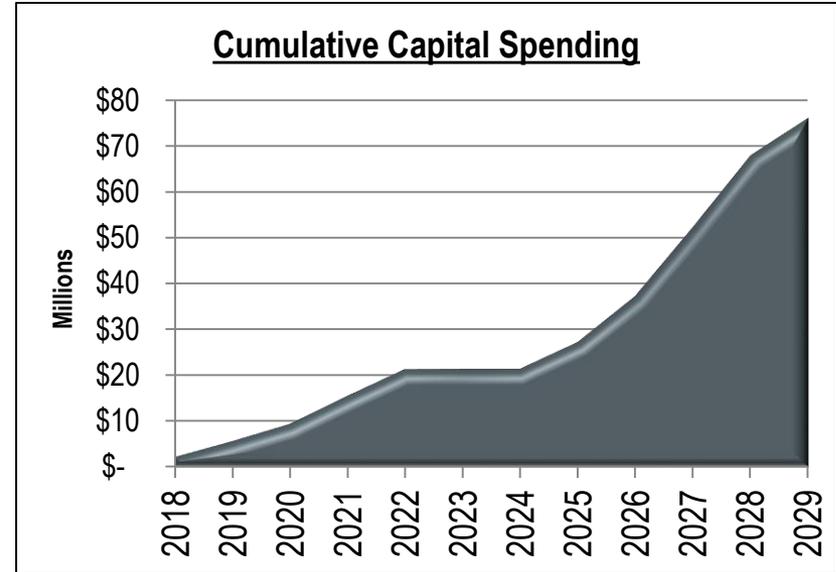
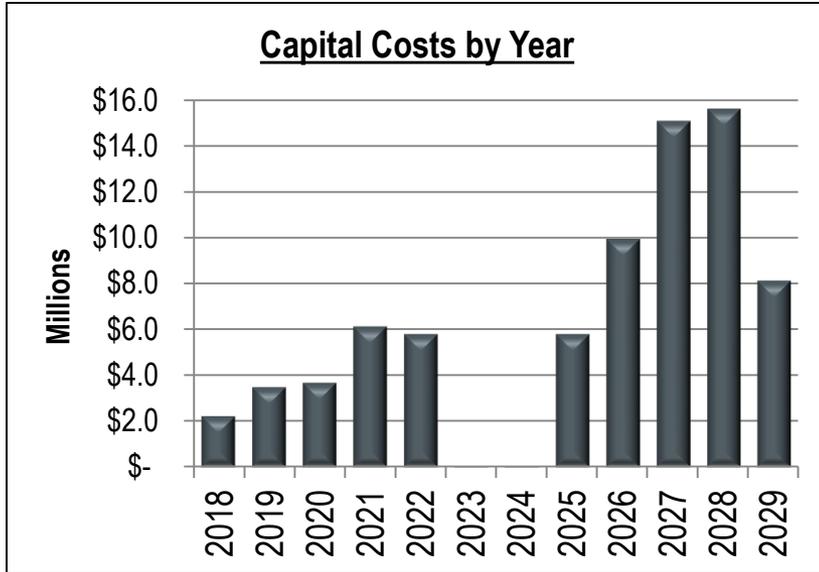


	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		2.6%	2.5%	2.5%	2.5%	2.5%
Monthly Residential Bill	\$30.54	\$31.33	\$32.11	\$32.91	\$33.73	\$34.57
Change From Prior Year		+\$0.79	+\$0.78	+\$0.80	+\$0.82	+\$0.84

- ◆ Even with no CIP, rate increases are needed to keep up with rising operating costs and maintain prudent reserve levels
- ◆ Status Quo is not really an option here – its shown for perspective on increases that would be required regardless of the capital projects



Capital Needs Forecast



Summary of Projected Capital Costs	2018 – 2023	2024 – 2029	Total
Biosolids (WWTP)	\$18,486,000	\$ -	\$18,486,000
Liquid Stream (WWTP)	2,337,000	54,151,000	56,488,000
Admin/Other	591,000	468,000	1,059,000
Total	\$21,414,000	\$54,619,000	\$76,033,000

Focus for this study

Future projects required



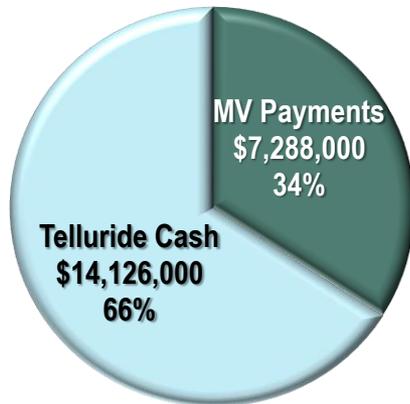
Capital Funding Philosophy

	Pros	Cons
Cash Funding	<ul style="list-style-type: none">▪ Lower overall cost▪ May improve financial flexibility	<ul style="list-style-type: none">▪ Higher near-term rates▪ Existing customers pay for disproportionate share of costs▪ May need to maintain higher cash balances (unless debt can be issued)
Debt Funding	<ul style="list-style-type: none">▪ Mitigates immediate rate impacts of capital investment▪ Enhances “generational equity” by spreading cost to future customers	<ul style="list-style-type: none">▪ Higher overall cost (interest)▪ May reduce financial flexibility (e.g. coverage requirements)

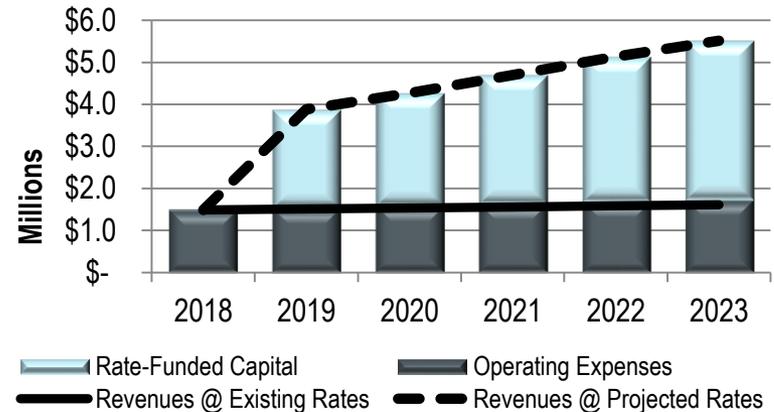


Findings: “Cash Only” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



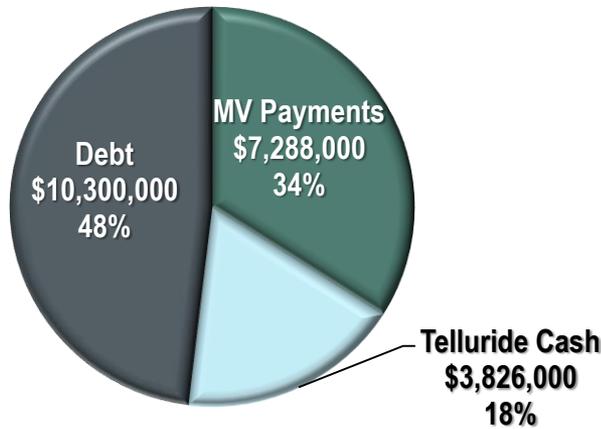
	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		225.0%	10.0%	10.0%	9.0%	7.0%
Monthly Residential Bill	\$30.54	\$99.26	\$109.19	\$120.11	\$130.92	\$140.08
Change From Prior Year		+\$68.72	+\$9.93	+\$10.92	+\$10.81	+\$9.16

- ◆ **Rate increases needed to cover O&M and generate cash for capital projects**
- ◆ **6% annual increases required in 2024 for the future CIP projects**

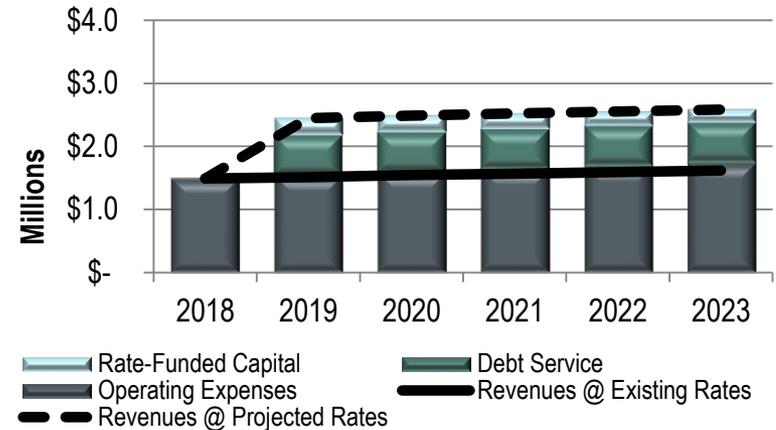


Findings: “Maximum Debt” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



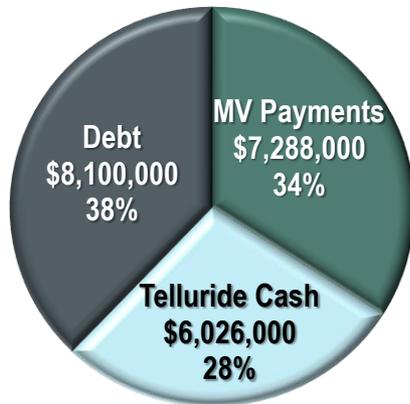
	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		89.0%	0.0%	0.0%	0.0%	0.0%
Monthly Residential Bill	\$30.54	\$57.72	\$57.72	\$57.72	\$57.72	\$57.72
Change From Prior Year		+\$27.18	\$0.00	\$0.00	\$0.00	\$0.00

- ◆ **\$10.3 million in net debt proceeds → debt service of \$639,000/year**
- ◆ **Rate increases are needed to cover O&M and debt service**
 - 130% rate increase needed in 2024 to cover second debt issue (\$26.5 million of net proceeds)

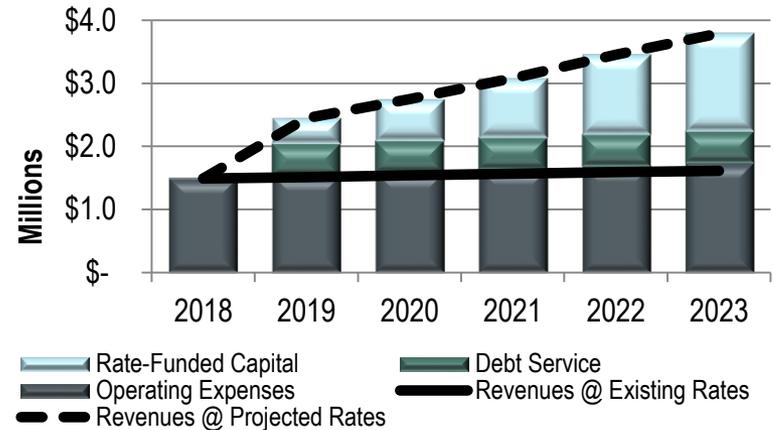


Findings: “Hybrid” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		89.0%	13.0%	13.0%	13.0%	10.0%
Monthly Residential Bill	\$30.54	\$57.72	\$65.22	\$73.70	\$83.28	\$91.61
Change From Prior Year		+\$27.18	+\$7.50	+\$8.48	+\$9.58	+\$8.33

- ◆ **\$8.1 million in net debt proceeds → debt service of \$503,000/year**
- ◆ **Rate increases are needed to cover O&M/debt service and generate funding for capital**
 - Increase of 9% per year needed from 2024-28 to cover second debt issue (\$19.3 m of net proceeds)



Comparing Funding Alternatives

"Status Quo" Scenario (No CIP)	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		2.6%	2.5%	2.5%	2.5%	2.5%	13.3%
Monthly Residential Bill	\$30.54	\$31.33	\$32.11	\$32.91	\$33.73	\$34.57	
Change From Prior Year		+\$0.79	+\$0.78	+\$0.80	+\$0.82	+\$0.84	+\$4.03

"Cash Only" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		225.0%	10.0%	10.0%	9.0%	7.0%	358.7%
Monthly Residential Bill	\$30.54	\$99.26	\$109.19	\$120.11	\$130.92	\$140.08	
Change From Prior Year		+\$68.72	+\$9.93	+\$10.92	+\$10.81	+\$9.16	+\$109.54

"Maximum Debt" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		89.0%	0.0%	0.0%	0.0%	0.0%	89.0%
Monthly Residential Bill	\$30.54	\$57.72	\$57.72	\$57.72	\$57.72	\$57.72	
Change From Prior Year		+\$27.18	\$0.00	\$0.00	\$0.00	\$0.00	+\$27.18

"Hybrid" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		89.0%	13.0%	13.0%	13.0%	10.0%	200.0%
Monthly Residential Bill	\$30.54	\$57.72	\$65.22	\$73.70	\$83.28	\$91.61	
Change From Prior Year		+\$27.18	+\$7.50	+\$8.48	+\$9.58	+\$8.33	+\$61.07



Questions / Discussion



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Town of Telluride



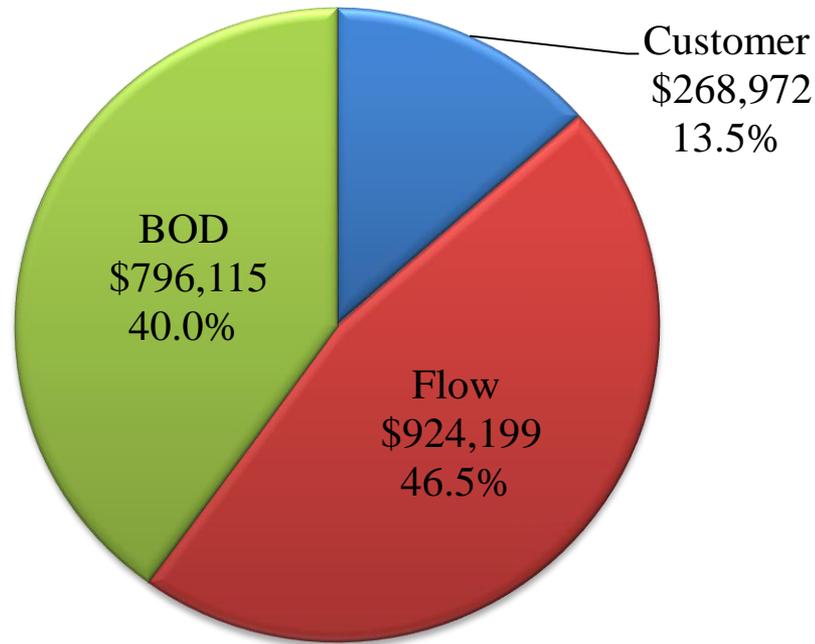
Wastewater Cost of Service

Jason Mumm, FCS Group

June 2018



Revenue Requirement



Revenue requirement is shown net of Mountain Village portion of costs (35%)



Allocation to Classes

Allocated Cost of Service					Allocation Under Existing Rates	% Change
Class	Customer Costs	Flow Costs	BOD Costs	Total	Total	Total
Telluride						
Residential - Inside Town	181,327	334,118	257,085	772,530	397,781	94.21%
Commercial - Inside Town	36,773	465,988	411,755	914,517	472,433	93.58%
Residential - Outside Town	826	2,280	1,754	4,860	2,266	114.48%
Commercial - Outside Town	4,793	28,763	25,416	58,972	42,197	39.75%
Aldasoro						
Residential - Inside Town	-	-	-	-	-	0.00%
Commercial - Inside Town	-	-	-	-	-	0.00%
Residential - Outside Town	-	-	-	-	-	0.00%
Commercial - Outside Town	11,404	20,351	17,982	49,737	31,271	59.05%
Lawson Hill						
Residential - Inside Town	-	-	-	-	-	0.00%
Commercial - Inside Town	-	-	-	-	-	0.00%
Residential - Outside Town	21,950	40,385	31,074	93,409	60,190	55.19%
Commercial - Outside Town	-	-	-	-	-	0.00%
Hillside						
Residential - Inside Town	-	-	-	-	-	0.00%
Commercial - Inside Town	-	-	-	-	-	0.00%
Residential - Outside Town	10,082	15,816	12,170	38,067	27,645	37.70%
Commercial - Outside Town	1,818	15,297	13,517	30,632	18,750	63.37%
Septic Haulers						
	-	1,201	25,362	26,563	-	0.00%
Total	\$ 268,972	\$ 924,199	\$ 796,115	\$ 1,989,286	\$ 1,052,532	89.00%



Rate Outcomes

Bimonthly Rate Schedule	COS Rates					
	Existing	ATB Increase	Telluride	Aldasoro	Lawson Hill	Hillside
Inside						
Residential Base Rates						
Deed-Restricted	\$45.59	\$86.17	\$88.54			
Other	\$61.08	\$115.44	\$118.62			
Commercial Base Rates						
5/8" Meter (Includes 8 kgal)	\$61.08	\$115.44	\$118.24			
3/4" Meter (Includes 12 kgal)	\$91.44	\$172.82	\$177.01			
1" Meter (Includes 16 kgal)	\$122.03	\$230.64	\$236.22			
Volume Rates						
Rate per kgal Above Base						
Volume	\$6.87	\$12.98	\$13.30			
Outside						
Residential Base Rates						
Deed-Restricted	\$56.97	\$107.67	\$122.19	\$56.97	\$88.41	\$78.45
Other	\$76.35	\$144.30	\$163.76	\$76.35	\$118.49	\$105.13
Commercial Base Rates						
5/8" Meter	\$76.35	\$144.30	\$106.70	\$121.44		\$124.73
3/4" Meter	\$114.30	\$216.03	\$159.74	\$181.80		\$186.73
1" Meter	\$152.55	\$288.32	\$213.19	\$242.63		\$249.22
Volume Rates						
Rate per kgal Above Base						
Volume	\$8.58	\$16.22	\$11.99	\$13.65	\$8.58	\$14.02



Outside Rates as Multiplier of Inside

	Existing	ATB Increase	Telluride	Aldasoro	Lawson Hill	Hillside
Residential Base Rates						
Deed-Restricted	1.25	1.25	1.38	0.64	1.00	0.89
Other	1.25	1.25	1.38	0.64	1.00	0.89
Commercial Base Rates						
5/8" Meter	1.25	1.25	0.90	1.03		1.05
3/4" Meter	1.25	1.25	0.90	1.03		1.05
1" Meter	1.25	1.25	0.90	1.03		1.06
1-1/2" Meter	1.29	1.29	0.93	1.06		1.09
2" Meter	1.25	1.25	0.90	1.03		1.05
3" Meter	1.29	1.29	0.93	1.06		1.09
4" Meter	1.29	1.29	0.93	1.06		1.09
Volume Rates						
Rate per kgal Above Base Volume	1.25	1.25	0.90	0.90	1.03	0.65



Wastewater Characteristics

Class	BOD Concentration (Mg/l)	Data Source
Residential (inside/outside)	255	Master Plan
Mountain Village (all flow)	286	Avg. Loading for WWTP
Commercial (inside/outside)	293	Calculated
Septic	7,000	Master Plan

Total Wastewater Plant Flow = 270.85 million gallons

Total Wastewater Plan Loading = 642,103 LBS (286 mg/l)

TOWN OF TELLURIDE



Wastewater Rate Study

Presented by:
Jason Mumm, Executive Consultant

September 4, 2018

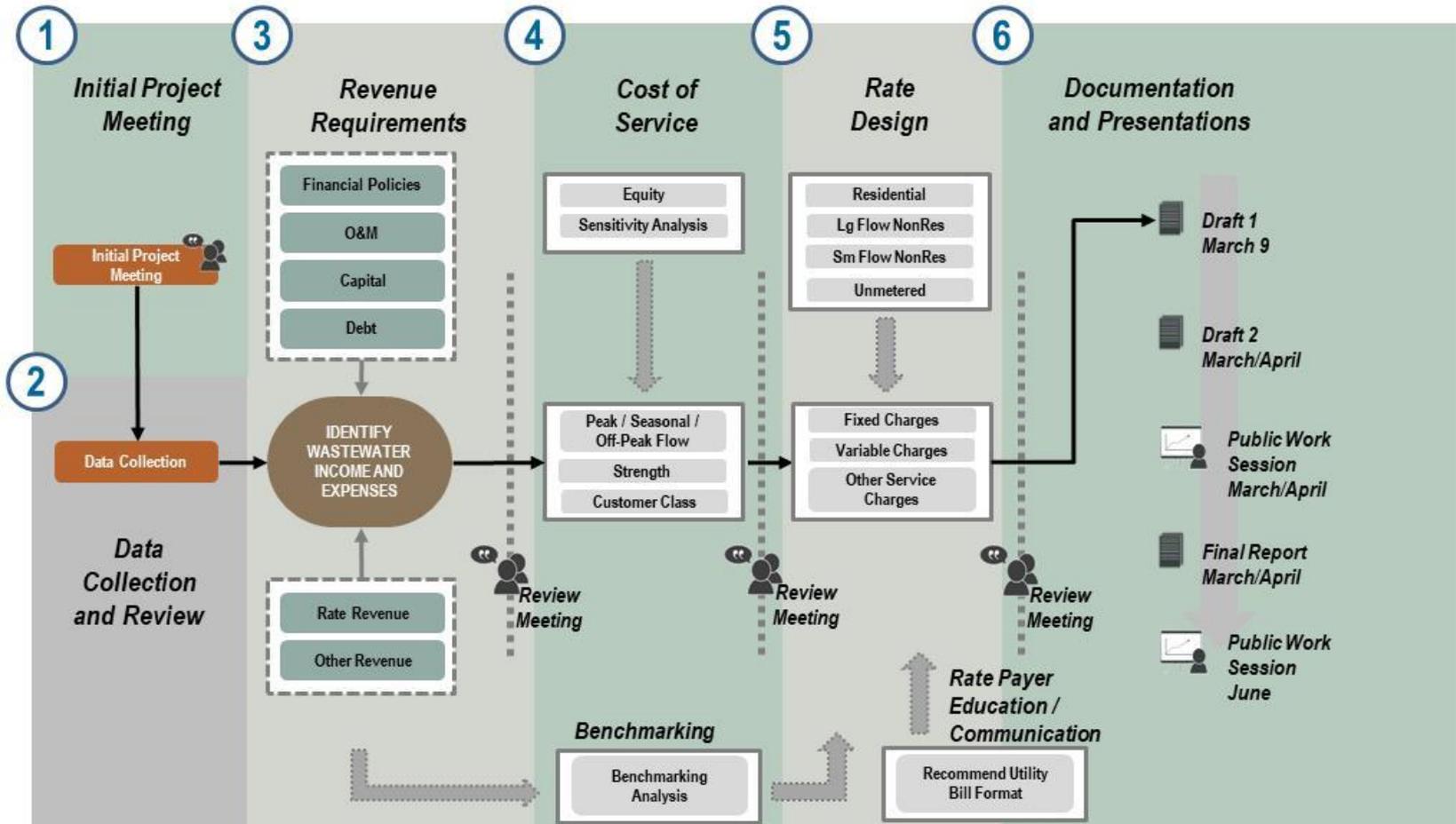


Agenda

- ◆ **Overview of Study Process**
- ◆ **Fiscal Policies & Other Assumptions**
- ◆ **Summary of Revenue Needs**
- ◆ **Summary of Cost-of-Service Findings**
- ◆ **Proposed Rate Schedule**
- ◆ **Questions/Discussion**



Study Schematic





Utility Fiscal Policies

Fiscal Policy	Purpose	Target
Operating Reserve	Liquidity cushion to accommodate fluctuations in cash flow	90 Days of O&M Expenses* (2019 Target: \$379,000)
Capital Reserve	To address emergency repairs and unanticipated capital repairs	1% of the cost of system assets* (2019 Target: \$147,000)
Debt Service Coverage	Compliance with debt covenants, preserving credit rating for future debt issuance	(N/A – Town does not have any sewer utility debt requiring coverage)

*Combined operating/capital target balance: 150 days of O&M expenses



Key Assumptions

Annual Cost Inflation

- General: 2.5%
- Salaries & Benefits: 5.0%
- Construction: 3.5%

Operating Forecast

- Generally based on 2018 Budget
 - Adjusted for inflation in future years
 - Rate revenues based on projected customer counts and usage
 - Mountain Village payments set at 35% of treatment-related operating/capital costs (based on estimated share of total flow)

Annual Growth Rates

- 1.5% per year based on WWTP Master Plan
 - \approx 16 – 17 customers per year

Debt Issuance

- Revenue Bonds
 - 30-Year Term
 - 5.0% Interest Rate
 - Issuance Cost: 1.0% of Amount Issued

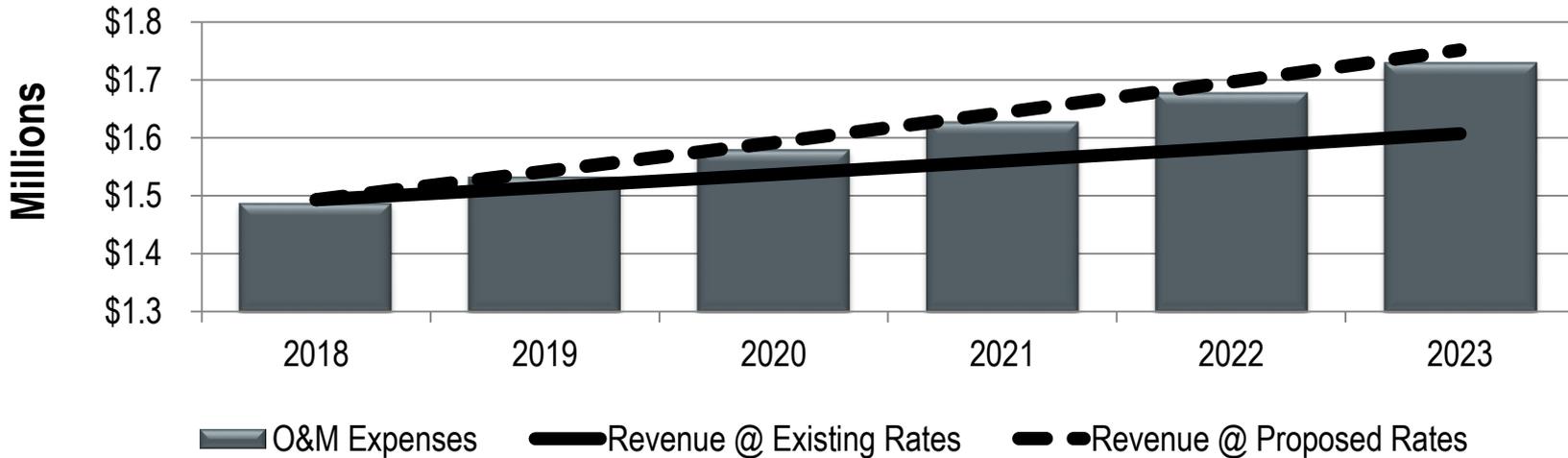


Summary of Scenarios Considered

- ◆ **Status Quo (Operating Only – No CIP)**
- ◆ **With CIP (3 Capital Funding Scenarios):**
 - Cash Only
 - Maximum Debt
 - Hybrid (Cash & Debt)



Findings: “Status Quo” Scenario



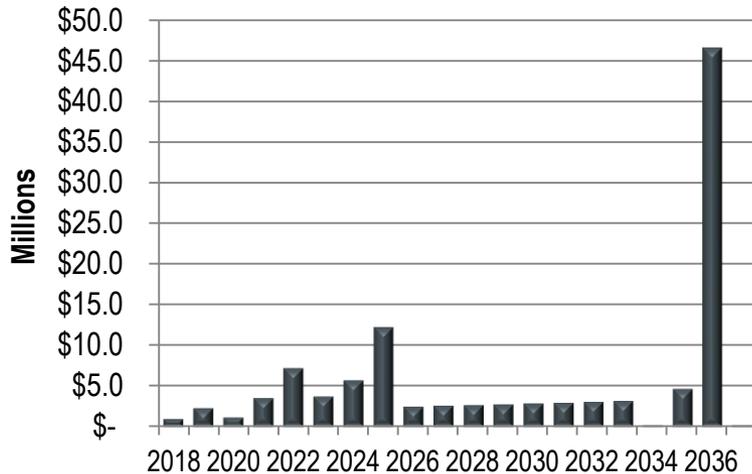
	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		2.6%	2.5%	2.5%	2.5%	2.5%
Bimonthly Residential Bill	\$61.08	\$62.66	\$64.22	\$65.82	\$67.46	\$69.14
Change From Prior Year		+\$1.58	+\$1.56	+\$1.60	+\$1.64	+\$1.68

- ◆ **Even with no CIP, rate increases are needed to keep up with rising operating costs and maintain prudent reserve levels**
- ◆ **Status Quo is not really an option, but is shown for perspective on increases that would be required regardless of the capital projects**

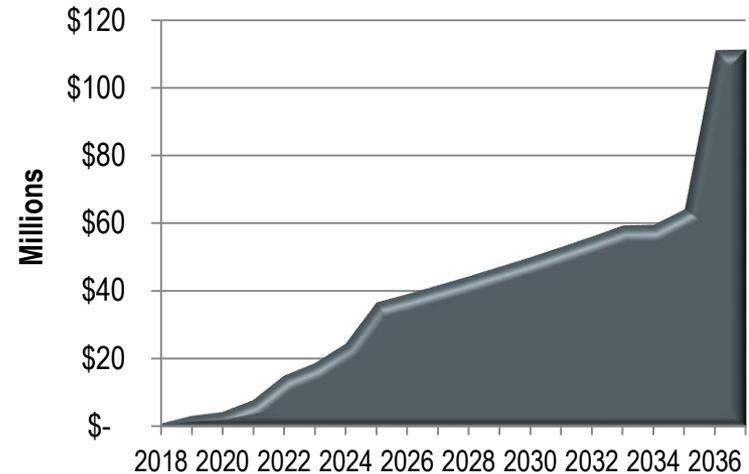


Capital Needs Forecast

Capital Costs by Year



Cumulative Capital Spending



Summary of Projected Capital Costs	2018 – 2023	Future	Total
Biosolids (WWTP)	\$ 7,135,000	\$25,957,000	\$ 33,092,000
Liquid Stream (WWTP)	10,940,000	64,177,000	75,117,000
Admin/Other	825,000	2,173,000	2,998,000
Total	\$18,900,000	\$92,307,000	\$111,207,000

Focus for this study

Future projects required



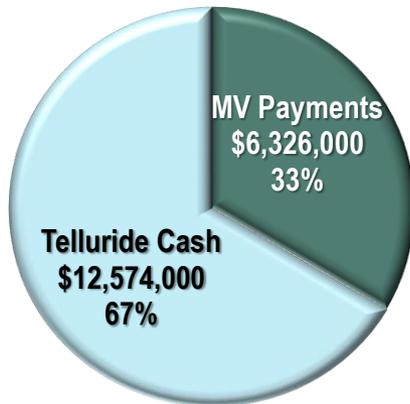
Capital Funding Philosophy

	Pros	Cons
Cash Funding	<ul style="list-style-type: none">▪ Lower overall cost▪ May improve financial flexibility	<ul style="list-style-type: none">▪ Higher near-term rates▪ Existing customers pay for disproportionate share of costs▪ May need to maintain higher cash balances (unless debt can be issued)
Debt Funding	<ul style="list-style-type: none">▪ Mitigates immediate rate impacts of capital investment▪ Enhances “generational equity” by spreading cost to future customers	<ul style="list-style-type: none">▪ Higher overall cost (interest)▪ May reduce financial flexibility (e.g. coverage requirements)

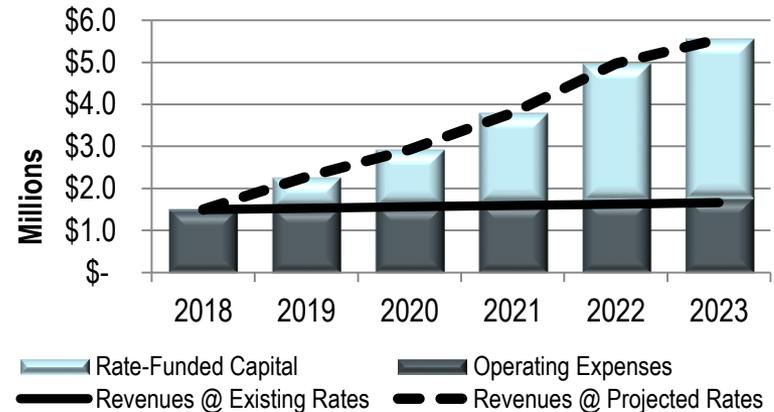


Findings: “Cash Only” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



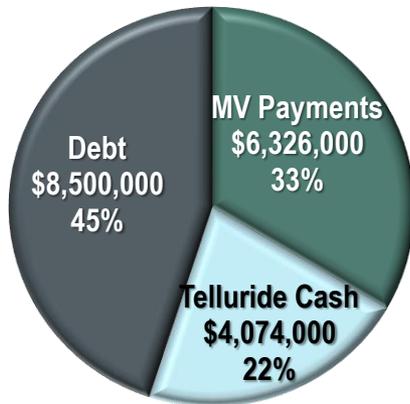
	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		70.0%	33.0%	33.0%	33.0%	11.0%
Bimonthly Residential Bill	\$61.08	\$103.84	\$138.11	\$183.69	\$244.31	\$271.18
Change From Prior Year		+\$42.76	+\$34.27	+\$45.58	+\$60.62	+\$26.87

- ◆ Rate increases needed to cover O&M and generate cash for capital projects
- ◆ 11% increase in 2024, 9% increase in 2025 for the future CIP projects

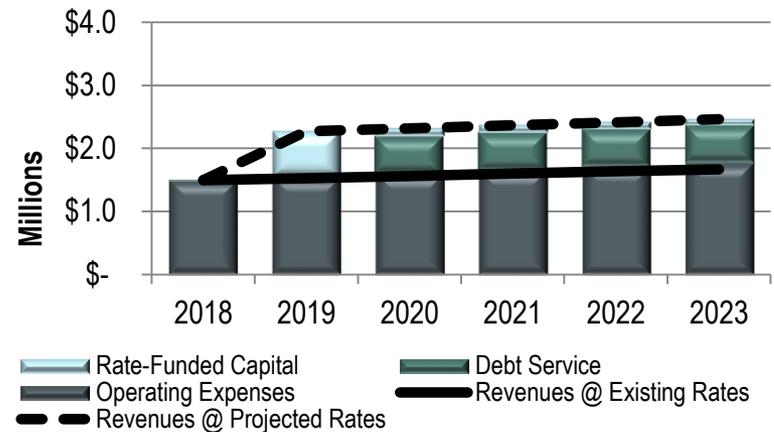


Findings: “Maximum Debt” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



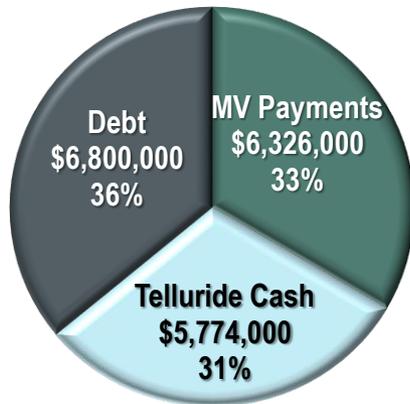
	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		70.0%	0.0%	0.0%	0.0%	0.0%
Bimonthly Residential Bill	\$61.08	\$103.84	\$103.84	\$103.84	\$103.84	\$103.84
Change From Prior Year		+\$42.76	\$0.00	\$0.00	\$0.00	\$0.00

- ◆ **\$8.5 million in net debt proceeds → debt service of \$598,000/year**
- ◆ **Rate increases are needed to cover O&M and debt service**
 - 58% rate increase needed in 2024 to cover second debt issue (\$12.9 million of net proceeds)

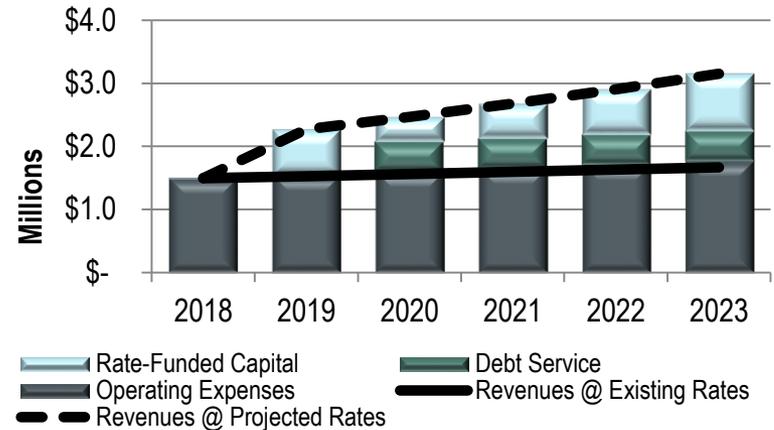


Findings: “Hybrid” Scenario

2018 – 2023 Capital Funding Strategy



Revenue Requirement Forecast



	Existing	Proposed	Projected			
	2018	2019	2020	2021	2022	2023
Annual Rate Adjustment		70.0%	8.0%	8.0%	8.0%	8.0%
Bimonthly Residential Bill	\$61.08	\$103.84	\$112.14	\$121.11	\$130.80	\$141.27
Change From Prior Year		+\$42.76	+\$8.31	+\$8.97	+\$9.69	+\$10.46

- ◆ **\$6.8 million in net debt proceeds → debt service of \$478,000/year**
- ◆ **Rate increases are needed to cover O&M/debt service and generate funding for capital**
 - Increase of 8% per year needed from 2024-28 to cover second debt issue (\$9.8 m of net proceeds)



Comparing Funding Alternatives

"Status Quo" Scenario (No CIP)	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		2.6%	2.5%	2.5%	2.5%	2.5%	13.3%
Bimonthly Residential Bill	\$61.08	\$62.66	\$64.22	\$65.82	\$67.46	\$69.14	
Change From Prior Year		+\$1.58	+\$1.56	+\$1.60	+\$1.64	+\$1.68	+\$8.06

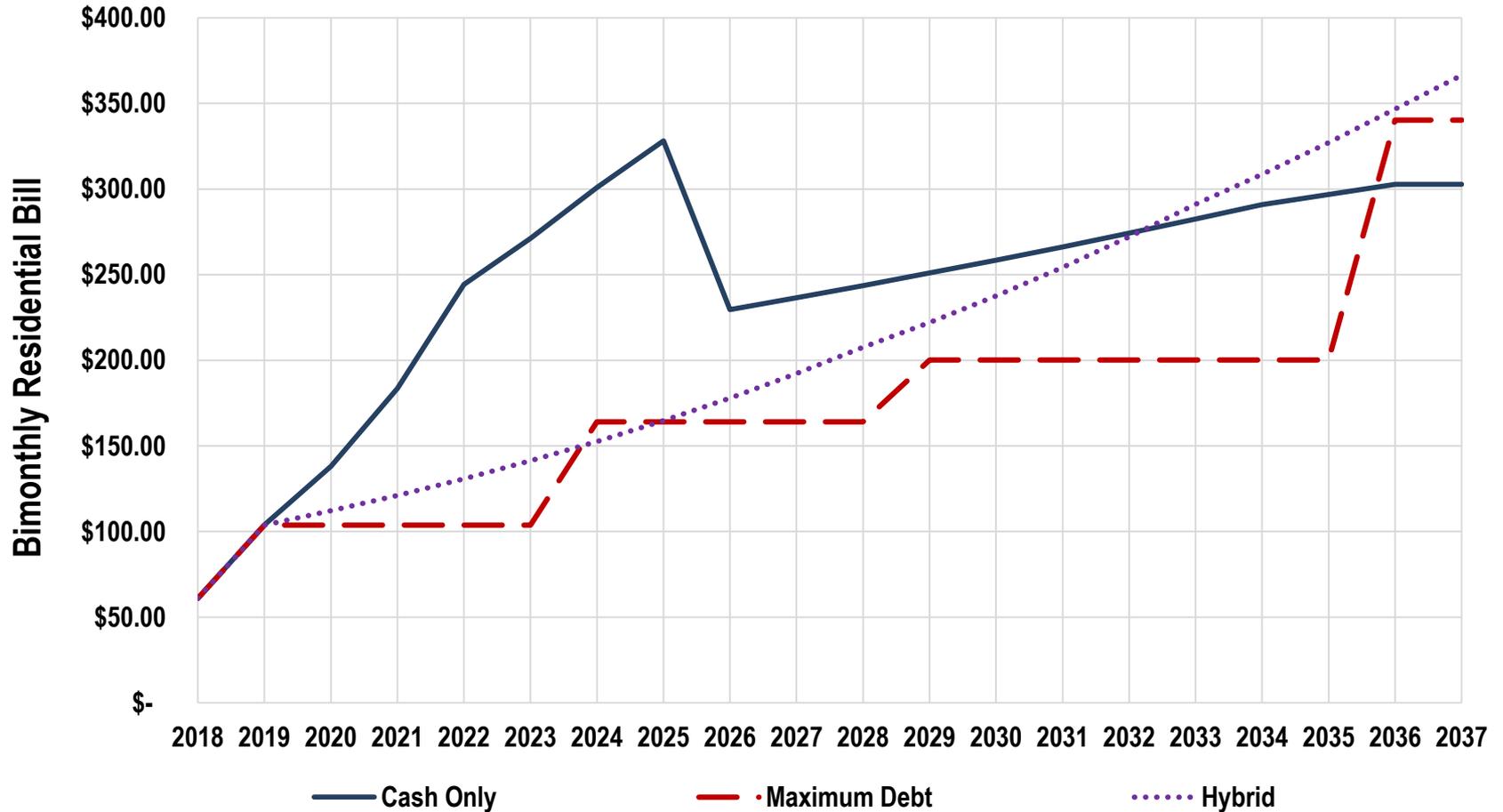
"Cash Only" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		70.0%	33.0%	33.0%	33.0%	11.0%	343.9%
Bimonthly Residential Bill	\$61.08	\$103.84	\$138.11	\$183.69	\$244.31	\$271.18	
Change From Prior Year		+\$42.76	+\$34.27	+\$45.58	+\$60.62	+\$26.87	+\$210.10

"Maximum Debt" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		70.0%	0.0%	0.0%	0.0%	0.0%	70.0%
Bimonthly Residential Bill	\$61.08	\$103.84	\$103.84	\$103.84	\$103.84	\$103.84	
Change From Prior Year		+\$42.76	\$0.00	\$0.00	\$0.00	\$0.00	+\$42.76

"Hybrid" Scenario	Existing	Proposed	Projected				Cumulative
	2018	2019	2020	2021	2022	2023	2019 – 2023
Annual Rate Adjustment		70.0%	8.0%	8.0%	8.0%	8.0%	131.3%
Bimonthly Residential Bill	\$61.08	\$103.84	\$112.14	\$121.11	\$130.80	\$141.27	
Change From Prior Year		+\$42.76	+\$8.31	+\$8.97	+\$9.69	+\$10.46	+\$80.19

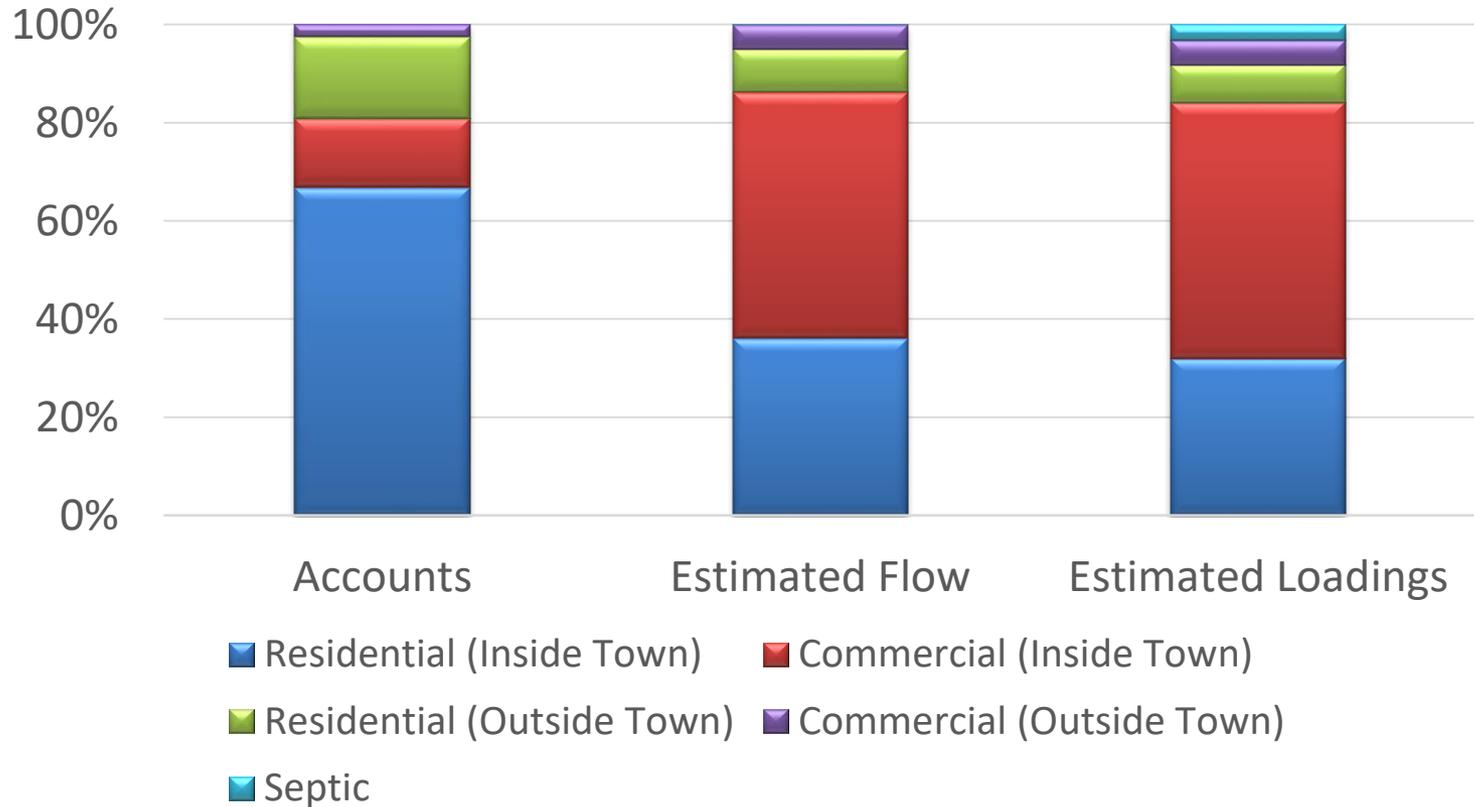


Long-Term Rate Forecast





How Customers Use the System



* Note: figures shown net of Mountain Village's 35% estimated usage of the system



Cost Allocation and Current Rates

Allocation of Projected 2019 Costs

Class	Allocated Cost of Service				Revenue @ Current Rates	Δ From Current Rates
	Customer	Flow	BOD	Total		
Telluride Residential	\$ 217,598	\$ 283,931	\$ 225,140	\$ 726,669	\$ 397,781	+82.7%
Telluride Commercial	45,462	395,994	360,591	802,047	480,406	+67.0%
Residential (Outside Town)	1,022	1,996	1,583	4,600	2,334	+97.0%
Aldasoro Residential	14,098	17,817	14,127	46,042	32,216	+42.9%
Lawson Hill Residential	27,137	35,356	28,035	90,528	62,010	+46.0%
Lawson Hill Commercial	5,925	25,181	22,930	54,037	43,492	+24.3%
Hillside Residential	12,464	13,847	10,980	37,290	28,481	+30.9%
Hillside Commercial	2,248	13,392	12,195	27,835	19,327	+44.0%
Septic Haulers	-	1,020	22,211	23,231	-	(N/A)
Total	\$ 325,954	\$ 788,534	\$ 697,792	\$1,812,279	\$1,066,047	+70.00%



Proposed Rates – Telluride

Class	Existing Rate	ATB Increase	Cost-of-Service Rate
Residential			
Size/Deed-Restricted	\$45.59	\$77.50	\$83.28
Other	\$61.08	\$103.84	\$111.58
Commercial			
5/8" Meter	\$61.08	\$103.44	\$101.97
3/4" Meter	\$91.44	\$155.45	\$152.66
1" Meter	\$122.03	\$207.45	\$203.73
1-1/2" Meter	\$243.97	\$414.75	\$407.31
2" Meter	\$366.01	\$622.22	\$611.06
3" Meter	\$549.00	\$933.30	\$916.57

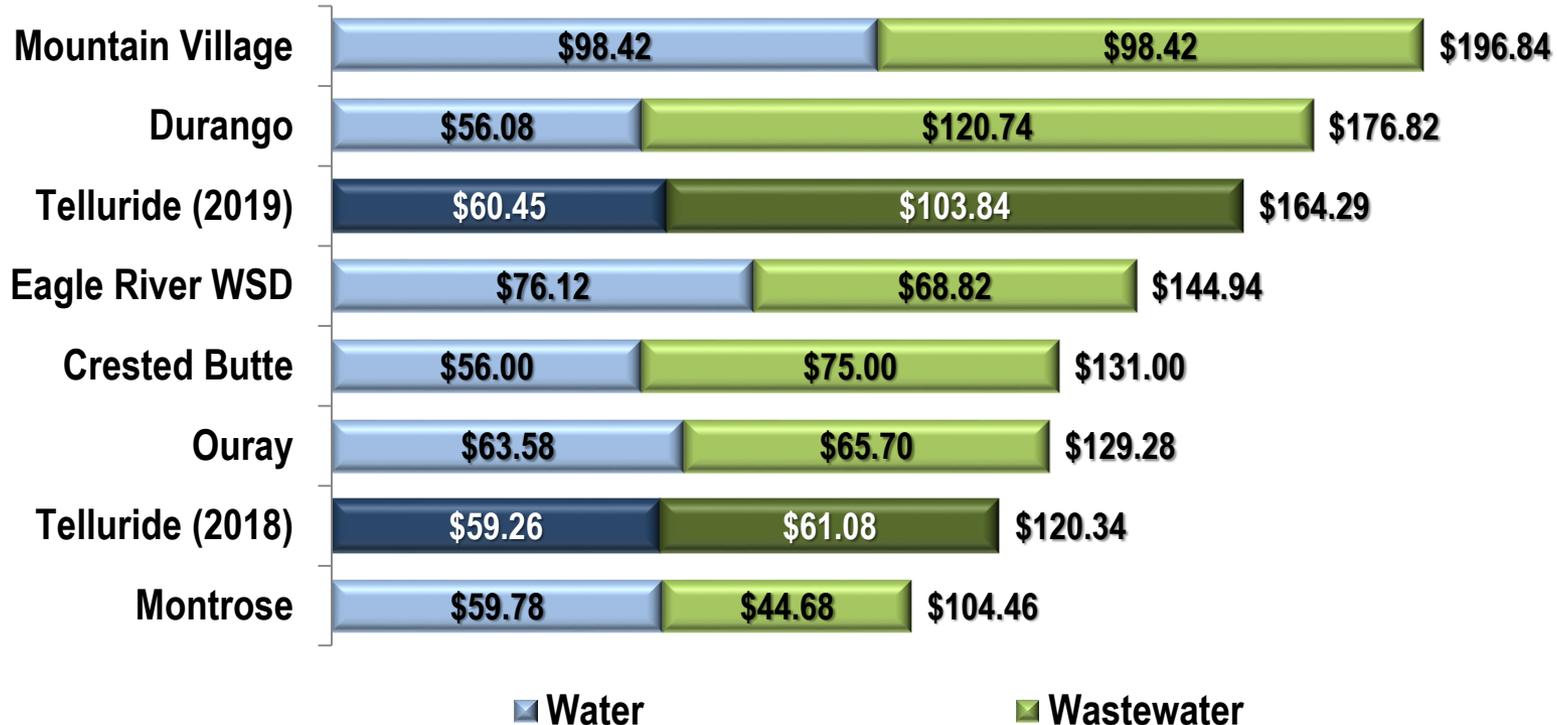


Proposed Rates – Outside Telluride

Class	Existing Rate	ATB Increase	Cost-of-Service Rate
Residential			
Size/Deed-Restricted	\$56.99	\$96.88	\$104.10
Other	\$76.35	\$129.80	\$139.48
Commercial			
5/8" Meter	\$76.35	\$129.80	\$127.46
3/4" Meter	\$114.30	\$194.31	\$190.83
1" Meter	\$152.54	\$259.32	\$254.66
1-1/2" Meter	\$304.96	\$518.43	\$509.14
2" Meter	\$457.51	\$777.77	\$763.83
3" Meter	\$686.25	\$1,166.63	\$1,145.71



Sample Bimonthly Bill Comparison



- ◆ Each utility's rates reflect its unique demographics and operating/capital needs
- ◆ Rates for other jurisdictions are for 2018; may increase in subsequent years



Questions / Discussion



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