STEAMBOAT SPRINGS

Comprehensive Water and Wastewater Rate Study

Draft Report / August 18, 2016

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1. EXECUTIVE SUMMARY

The City of Steamboat Springs, Colorado (City) retained Raftelis Financial Consultants, Inc. (RFC) in 2016 to complete a comprehensive Water and Wastewater Rate and Fee Study (Study). The purpose of the Study was to develop financial plans and rate and fee structures to promote self-sustainability of the City's separate water and wastewater enterprise funds and to recommend retail and wholesale customer rates for service and tap fees, consistent with the financial plan requirements and indicated cost of service results for full service City and wholesale customers.

As part of the Study, RFC assisted the City to:

- Develop separate 10-year water and wastewater enterprise financial plans.
- Complete water and wastewater cost of service analysis for a 2019 test-year.
- Develop alternative water and wastewater rates to fund annual system revenue requirements for each enterprise.
- Alternative three-year water and wastewater rates for 2017 through 2019 that Council can consider for adoption effective January 1st of each year.
- Update water and wastewater tap fees for a January 1, 2017 effective date.

The multi-year water and wastewater financial plans, supporting worksheets and calculations, revenue projections, and assumptions are detailed in Appendix A and E respectively.

Each of the separate water and wastewater financial plans are organized around a total fund with separate operations and tap fee subfunds. The water and wastewater rate revenue requirements of the respective operations subfunds represent the cost of providing service and include operation and maintenance (O&M) expenses, non-growth capital related costs (cash funded project costs and debt service), other miscellaneous cash inflows and outflows, and loans to/repayments from the tap fee subfunds.

Growth-related capital costs (cash funded project costs and debt service) are assigned to the tap fee subfund and are paid for via tap fees. Where there are deficiencies in the tap fee subfund, loans from the operations subfund are made to maintain financial performance thresholds and fund tap fee subfund expenditures. As needed and as the financial performance of the tap fee subfund allows, repayments to the operations subfunds are also made during the course of the 10-year study period.

The financial plans evaluate the adequacy of system revenues, adjusted for customer and demand-related (water use and wastewater flow) growth, to:

- Fund annual O&M expenses, debt service, and capital expenditures and
- Maintain the following financial performance thresholds:

- Exceed debt service coverage (DSC) ratio targets1 of at least 1.50 times annual debt service, including annual tap fee revenue, with a legal requirement of 1.10 times annual debt service for existing wastewater loans.
- Exceed end of year cash reserve targets of:
  - Water Fund: 25% of O&M expenses plus $500,000
- Wastewater Fund: 20% of O&M expenses plus $500,000

2016 water user charge revenues (revenues from the monthly rates assessed to customers) are estimated at $2.19 million. Figure 1-1 summarizes projected water rate revenue increases over the 10-year study period necessary to fund annual expenditures and meet financial performance criteria and do not necessarily equate to the overall rate increase for a specific class of customers or an individual customer. The proposed water rates for service for each customer class necessary to generate the increased rate revenue by year are included in Section 5.2 of this report.

Figure 1-1: Projected Annual Water Rate Revenue Increases

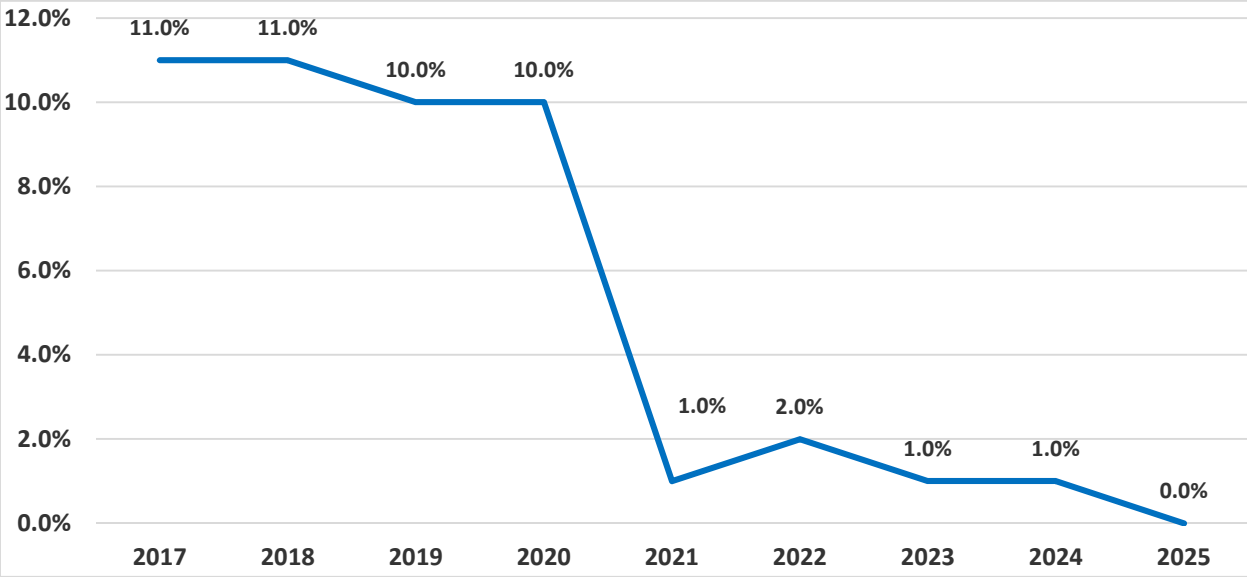
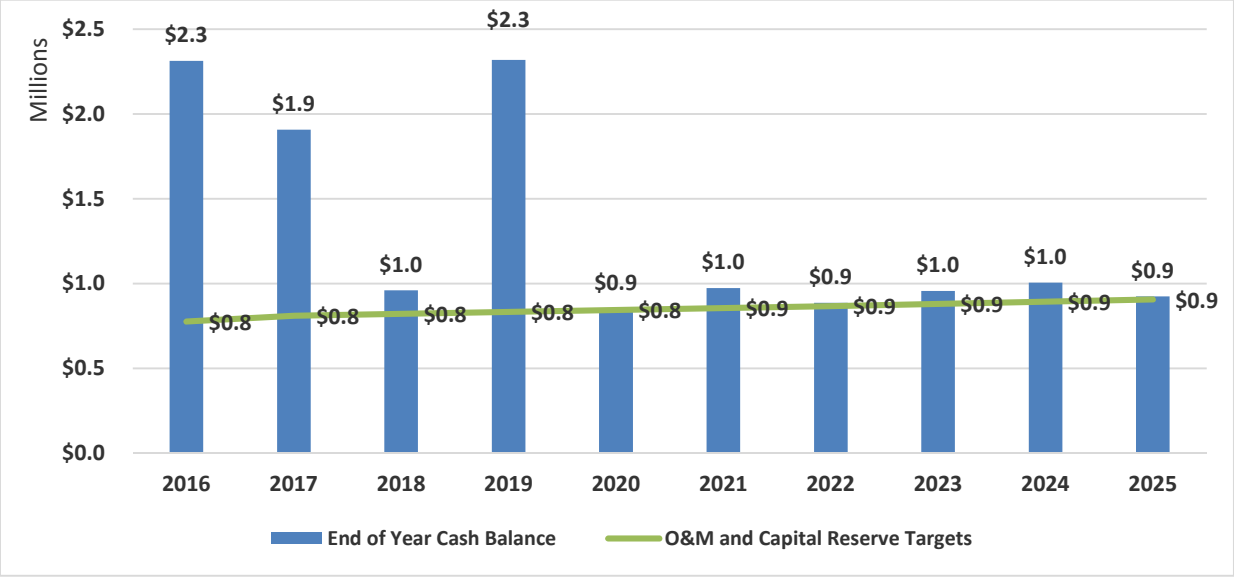


Figure 1-2 shows the end-of-year cash balance and O&M and capital reserves for the water total fund.

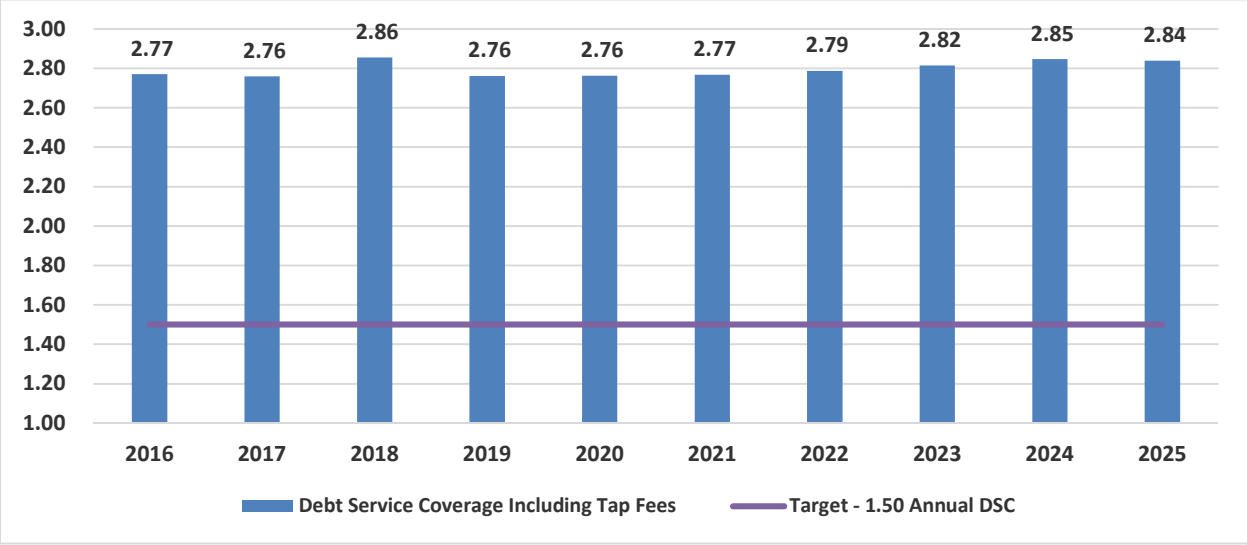
[1] Debt service coverage ratio is the ratio of total system revenues less operating expenditures (referred to as "net revenues") divided by the annual debt service.

Figure 1-2: Projected Water Total Fund End-of-Year Cash Balances and Reserve Targets



DSC is a measure of a borrower's ability to repay its debt obligations. The projected financial plan is generally designed to achieve a 1.50 times annual DSC ratio consistent with current City financial policies. At a ratio of 1.50, the revenues available for debt service would be 50% greater than the annual debt service payment. The DSC target is projected to be met or exceeded in 2016 through 2025 through a combination of rate revenue increases and debt issues. In addition to the City's financial policy related to DSC, the City's existing water loans require debt service coverage of 1.10 times annual debt service. It is prudent financial to target DSC ratio that are higher than the legal minimum as water usage and revenues fluctuate annually within the City due to both weather and tourism and seasonal visitors. Figure 1-3 shows water fund DSC ratio including tap fees as compared with the targets.

Figure 1-3: Projected Annual Water Fund DSC



The need to maintain cash reserves while funding annual expenses are the drivers of the proposed water rate revenue increases as the projected DSC ratio exceed the target of 1.50 times annual debt service.

2016 wastewater user charge revenues are estimated at $3.42 million. Figure 1-4 summarizes projected wastewater rate revenue increases over the 10-year study period necessary to fund annual expenditures and meet financial performance criteria and do not necessarily equate to the overall rate increase for a specific class of customers or an individual customer. The proposed wastewater rates for service for each customer class necessary to generate the increased revenue by year are included in Section 6.2 of this report.

Figure 1-4: Projected Annual Wastewater Rate Revenue Increases

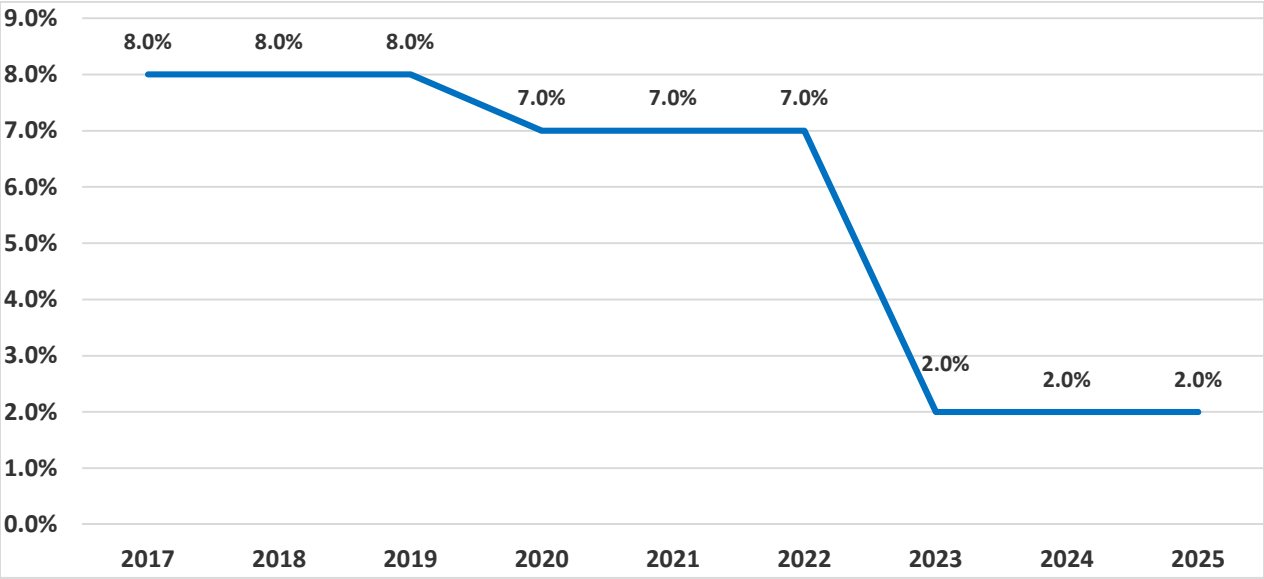


Figure 1-5 shows the end-of-year cash balance and O&M and capital reserves for the wastewater total fund. The City is anticipating a large wastewater treatment plant (WWTP) capital project in 2022 and proposed rate revenue increases in 2017 through 2022 are based on more frequent, smaller increases in advance of the significant capital project. The cash reserve targets are exceeded in 2022 and at target by 2025 or the end of the Study Period.

Figure 1-5: Projected Wastewater Total Fund End-of-Year Cash Balances and Reserve Targets

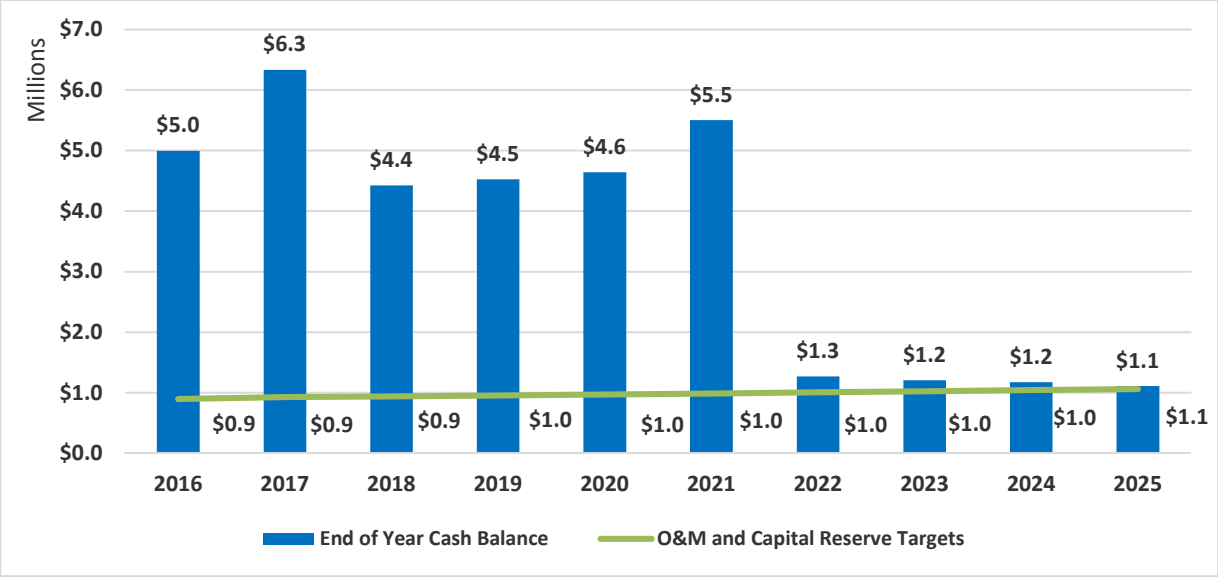
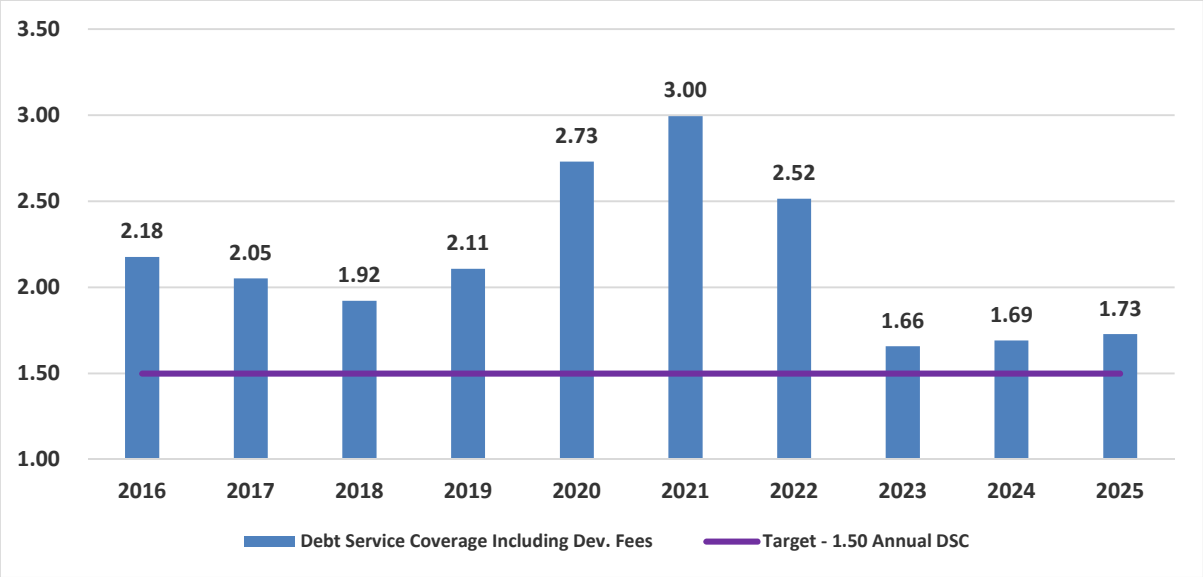


Figure 1-6 shows wastewater fund DSC ratio including tap fees as compared with the targets. In addition to the City's financial policy related to referenced above, the City's existing wastewater loans require debt service coverage of 1.10 times annual debt service. After issuing debt in 2022 to fund a portion of the WWTP capital project, annual debt service increases and the projected DSC ratio results are close to the target of 1.50 annual debt service.

Figure 1-6: Projected Annual Wastewater Fund DSC



Working with City staff, RFC developed three water rate alternatives. Each alternative generates the same amount of revenue by customer classification and user, but bills would differ for different users that varies by alternative. The major differences between the alternatives are as follows:

- Alternative 1 reflects the current water rate structure with increases to the monthly service charges and volume rates.
- Alternative 2 also reflects the current water rate structure, but replaces the single monthly service charge per account for commercial customers with a monthly service charge that increases by meter size.
- Alternative 3 reflects the current water rate structure and includes a minimum of four thousand gallons (kgals) per residential dwelling unit per month as part of the residential and combined customer monthly service charge. Under this alternative, monthly use per dwelling unit of 0 to 4 kgals is not assessed a volume rate.

Table 1-1: Proposed Retail Water Rates Alternative 1 (Existing Structure)

Description	Existing	Alternative 1 Retail Rates		
	2016	2017	2018	2019
Monthly Service Charge – City				
Residential (1)	$21.96	$24.38	$27.07	$29.77
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	24.38	27.07	29.77
Residential Volume Rate per 1,000 gallons (1)				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) Low income seniors are billed at 50% of the residential rate.

Table 1-2: Proposed Retail Water Rates Alternative 2 (Non-Residential Monthly Service Charge by Meter Size)

Description	Existing	Alternative 2 Retail Rates		
	2016	2017	2018	2016
Monthly Service Charge - City				
Residential (1)	$21.96	$24.38	$27.07	$29.77
Commercial				
¾-Inch Water Meter	22.78	12.88	14.30	15.72
1-Inch Water Meter	22.78	21.13	23.46	25.79
1 1/2-Inch Water Meter	22.78	42.61	47.30	52.00
2-Inch Water Meter	22.78	66.45	73.77	81.10
3-Inch Water Meter	22.78	141.87	157.51	173.15
4-Inch Water Meter	22.78	242.88	269.66	296.44
6-Inch Water Meter	22.78	536.79	595.97	655.15
8-Inch Water Meter	22.78	765.80	850.23	934.66
Combined	21.96	24.39	27.08	29.77
Residential Volume Rate per 1,000 gallons (1)				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) Low income seniors are billed at 50% of the residential rate.

Table 1-3: Proposed Retail Water Rates Alternative 3 (0-4,000 Gallons in Monthly Service Charge)

Description	Existing	Alternative 3 Retail Rates		
	2016	2017	2018	2016
Monthly Service Charge – City (1)				
Residential (2)	$21.96	$32.06	$36.17	$40.22
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	32.06	36.17	40.22
Residential Volume Rate per 1,000 gallons				
0 - 4,000 gallons (1) (2)	2.30	0.00	0.00	0.00
4,001 - 12,000 gallons	3.45	3.60	3.74	3.92
12,001 - 20,000 gallons	5.28	5.51	5.72	6.00
20,001 - 28,000 gallons	6.89	7.19	7.47	7.83
> 28,000 gallons	10.34	10.79	11.21	11.75
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) For only Residential accounts, the first 4,000 gallons per unit is included in the Monthly Service Charge.
(2) Low income seniors are billed 50% of the residential rate.

Table 1-4 shows proposed water rates for Steamboat II. Steamboat II is not assessed a fixed monthly rate with all revenues generated through a volume charge per kgal assessed to master metered Steamboat II water use. The contract between the City and Steamboat II restricts rate increases to cost increases of the City's raw water costs, projected at 3% per year.

Table 1-4: Proposed Wholesale Water Rates

Description	Existing	Steamboat II		
	2016	2017	2018	2019
Steamboat II Volume Rate per 1,000 gallons (1)	$1.15	$1.19	$1.23	$1.26

(1) Inflation adjustment to rate; not cost of service.

RFC developed two wastewater rate structure alternatives with rates in 2017 and 2018 phasing to class cost of service by 2019 for City customers. The major differences between each alternative include:

- Alternative 1 reflects the current wastewater rate structure with increases to the monthly service charges and commercial / combined customer volume rates.
- Alternative 2 also reflects the current wastewater rate structure, but replaces the single monthly service charge for commercial / combined customers with a monthly service charge that increases by meter size.

Table 1-5: Proposed Wastewater Rates Alternative 1 (Existing Structure)

Description	Existing	Alternative 1 Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential (1)	$33.10	$34.40	$35.79	$37.29
Commercial	26.35	28.07	29.92	31.92
Combined	26.35	28.07	29.92	31.92
Volume Rate per 1,000 gallons				
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57

(1) Low income seniors are billed at 50% of the residential rate.

Table 1-6: Proposed Wastewater Rates Alternative 2 (Non-Residential Monthly Service Charge by Meter Size)

Description	Existing	Alternative 2 Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential (1)	$33.10	$34.40	$35.79	$37.29
Commercial/Combined				
3/4-Inch Water Meter	26.35	13.76	14.69	15.87
1-Inch Water Meter	26.35	22.30	23.81	25.72
1 1/2-Inch Water Meter	26.35	45.29	48.35	52.23
2-Inch Water Meter	26.35	69.42	74.12	80.07
3-Inch Water Meter	26.35	145.68	155.53	168.02
4-Inch Water Meter	26.35	249.23	266.08	287.45
6-Inch Water Meter	26.35	543.78	580.54	627.17
8-Inch Water Meter	26.35	727.90	777.10	839.52
Volume Rate per 1,000 gallons				
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57

(1) Low income seniors are billed at 50% of the residential rate.

The City also provides wastewater service to three wholesale customers of Steamboat II, Mt. Werner and Tree Haus. Mt. Werner is billed quarterly and includes residential, commercial and combined customer classifications. Steamboat II is billed monthly and almost entirely residential, with one commercial customer. Tree Haus is also billed monthly and has a customer base that is entirely residential.

Table 1-7: Proposed Wholesale Customer Wastewater Rates

Description	Existing	Wholesale Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - Steamboat II				
Residential	$31.10	$33.45	$35.97	$38.70
Volume Rate per 1,000 gallons - Steamboat II				
Commercial	4.60	5.32	6.10	6.93
Combined	4.60	5.32	6.10	6.93
Monthly Service Charge - Mt. Werner				
Residential	11.25	12.17	13.17	14.25
Combined	11.25	12.17	13.17	14.25
Volume Rate per 1,000 gallons - Mt. Werner				
Commercial	4.79	5.48	6.21	6.98
Combined	4.79	5.48	6.21	6.98
Monthly Service Charge - Tree Haus				
Residential	24.45	23.83	23.15	22.42

RFC proposes increases to the existing water and wastewater tap fees assessed by the City. Tap fees are one-time capital recovery fees assessed to new or increased development to recover the cost of system capacity to serve new customers. The City currently assesses four different tap fees:

- Water System tap fee,
- Water Resources tap fee,
- WWTP and interceptor tap fee assessed to City and wholesale customers and
- Wastewater Collection tap fee assessed to only City customers.

Table 1-8 summarizes the current and proposed City water and wastewater tap fees and overall change effective January 1, 2017. In 2018 and 2019, RFC recommends that the City adjust tap fees annually for inflation, projected at 2% per year.

Table 1-8: Current and Proposed Tap Fee Comparison

Description	Current Tap Fee	Proposed Tap Fee	Difference ($)	Difference (%)
Water				
Water Resources	$41.02	$41.62	$0.60	1.5%
Water System	28.10	30.71	2.61	9.3%
Subtotal Water	**69.12**	**72.33**	**3.21**	**4.6%**
Sewer				
WWTP/Interceptor	$36.65	$39.14	$2.49	6.8%
Collection System	5.00	7.13	2.13	42.6%
Subtotal Sewer	**41.65**	**46.27**	**4.62**	**11.1%**
Total	**$110.77**	**$118.60**	**$7.83**	**7.1%**

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2. INTRODUCTION

2.1 SYSTEM OVERVIEW

The City operates a water and wastewater system providing service to City residents within the City's utility service area and wholesale customers served by other agencies/utilities outside the City's utility service area.

The City owns water rights, water treatment, storage, transmission, distribution and other miscellaneous system assets. The Fish Creek Filtration Plant and Yampa River Infiltration Galleries are operated by the Mount Werner and the City owns a portion of these assets. The City and Mt. Werner share proportionally in the operating costs of the water treatment assets and are responsible for their portion of major capital improvements or expansions of these assets.

The City owns and operates a wastewater treatment plant (WWTP), wastewater interceptor and collection system lines, lift stations and other miscellaneous wastewater system assets. The City operates the WWTP that treats wastewater effluent for City, Mt. Werner, Steamboat II, and Tree Haus.

Mt. Werner and Tree Haus participate in the interceptor, operating, and capital costs while Steamboat II participates in just the WWTP operating and capital costs. Steamboat II participates alone in the cost of a Lift Station that serves only Steamboat II.

2.2 STUDY OVERVIEW

The City retained RFC in 2016 to complete a comprehensive Water and Wastewater Rate and Fee Study (Study). The purpose of the Study was to develop financial plans and rate and fee structures to promote self-sustainability of the City's separate water and wastewater enterprise funds and to recommend retail and wholesale customer rates for service and tap fees, consistent with the financial plan requirements and indicated cost of service results for full service City and wholesale customers.

As part of the Study, RFC assisted the City to:

- Develop separate 10-year water and wastewater enterprise financial plans.
- Complete water and wastewater cost of service analysis for a 2019 test-year.
- Develop alternative water and wastewater rates to fund annual system revenue requirements for each enterprise.
- Alternative three-year water and wastewater rates for 2017 through 2019 that Council can consider for adoption effective January 1st of each year.
- Update water and wastewater tap fees for a January 1, 2017 effective date.

The multi-year water and wastewater financial plans, supporting worksheets and calculations, revenue projections, and assumptions are detailed in Appendix A and E respectively.

2.3 REPORT ORGANIZATION

Our report to the City contains seven sections as follows:

- Section 1 – Executive Summary
- Section 2 – Introduction
- Section 3 – Utility Accounts, Use and Growth
- Section 4 – Water and Wastewater Financial Plans
- Section 5 - Water Cost of Service and Rate Alternatives
- Section 6 – Wastewater Cost of Service and Rate Alternatives
- Section 7 – Water and Wastewater Tap Fees

The report contains eight appendices including the complete water financial plan and customer data (Appendix A), water cost of service (Appendix B), water rates 2017, 2018, and 2019 (Appendix C), water tap fee (Appendix D), wastewater financial plan and customer data (Appendix E), wastewater cost of service (Appendix F), wastewater rates 2017, 2018, and 2019 (Appendix G), and wastewater tap fee (Appendix H).

2.4 ACKNOWLEDGEMENTS

On behalf of the project team, we would like to acknowledge the commitment and contributions provided by several members of the City Finance Department in completing this project. In particular, we would like to recognize Mr. Gary Suiter, City Manager, Ms. Kim Weber, Finance Director, Mr. Jon Snyder, Utility Engineer, Mr. Greg Neppl, Controller, Mr. Gilbert Anderson, WWTP Manager, and Ms. Gina Cadrecha-Boyan, Utilities Billing for their input and guidance throughout the course of this study.

2.5 RELIANCE ON CITY PROVIDED DATA

During the course of this project, the City provided RFC with a variety of technical information, including but not limited, master plans, and audited and unaudited financial results, customer billing data, and cost and revenue data. RFC did not independently assess or test for the accuracy of such data – historic or projected. We have relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report.

As is often the case, there will be differences between actual and projected data, and some of the assumptions used in this report will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the data or results projected in this report and actual results achieved and those differences may be material. As such, we take no responsibility for the accuracy of data or projections provided by or prepared on behalf of the City, nor do we have any responsibility for updating this report for events occurring after the date of this report.

3. UTILITY ACCOUNTS AND USE

3.1 WATER

In 2015, the City currently served approximately 3,181 retail water accounts with 3,796 dwelling units inside the City and these accounts are divided into the following three customer classes:

- Residential
- Commercial
- Combined

Residential customers include all types of residential development, including multi- family housing. Combined customers include residential and commercial customers housed in a single structure served by a single service line. Commercial customers include all other types of customers that are neither residential nor combined.

The City also provides treated water service to one wholesale customer, Steamboat II, that serves 416 residential accounts and dwelling units and one commercial customer.

Table 3-1 summarizes the calendar year, 2015 customer data: number of monthly bills, dwelling units, and annual water use (in 1,000 of gallons or kgal) for each City customer classifications and Steamboat II.

Table 3-1: 2015 Water Customer Data

				Monthly Water Use per	
Customer Classification	**Monthly Bills**	**Dwelling Units (1)**	**Water Use-kgal**	**Dwelling Unit**	**Bill**
City					
Residential	32,286	3,158	185,391	4.89	5.74
Commercial	5,220	457	109,706	20.00	21.02
Combined	770	181	12,022	5.53	15.61
Subtotal	**38,276**	**3,796**	**307,119**	**6.74**	**8.02**
Steamboat II	**12**	**417**	**43,769**	**8.75**	**3,647**
Total	**38,288**	**4,213**	**350,888**	**6.94**	**9.16**

(1) Dwelling units for all customers are based on active end-user dwelling units billed in 2015.

3.2 WASTEWATER

In 2015, the City served approximately 3,138 retail wastewater accounts with 3,832 dwelling units and these accounts are divided into the following three customer classes:

- Residential
- Commercial
- Combined

Residential customers include all types of residential development, including multi- family housing. Combined customers include residential and commercial customers housed in a single structure served by a single service line. Commercial customers include all other types of customers that are neither residential nor combined.

The City also provides wastewater service to three wholesale customers of Steamboat II, Mt. Werner and Tree Haus. Mt. Werner is billed quarterly and includes residential, commercial and combined customer classifications. Steamboat II is billed monthly and almost entirely residential, with one commercial customer. Tree Haus is also billed monthly and has a customer base that is entirely residential.

Table 3-2 summarizes 2015 monthly bills, dwelling units, and annual winter water use (calculated over the months of October through March) for each City and wholesale customer classifications. Commercial and Combined customer classifications are billed for service using both the Monthly Service Charge and a Volume Rate per kgal of monthly winter water use.

Table 3-2: 2015 Wastewater Customer Data

				Monthly Water Use per	
Customer Classification	**Bills**	**Dwelling Units (2)**	**Water Use-kgal**	**Dwelling Unit**	**Bill**
Inside City					
Residential	32,222	3,236	131,470	3.39	4.08
Commercial	4,617	382	70,941	15.48	15.37
Combined	818	214	13,647	5.31	16.68
Subtotal	37,657	3,832	216,058	4.70	5.74
Steamboat II					
Residential	12	416	39,586	7.93	3,298.83
Commercial	12	1	132	11.00	11.00
Subtotal	24	417	39,718	7.94	1,654.92
Mt. Werner (1)					
Residential	4	6,112	221,143	3.02	55,285.63
Commercial	4	122	54,812	37.44	13,703.00
Combined	4	405	41,195	8.48	10,298.86
Subtotal	12	6,639	317,150	3.98	26,429.16
Tree Haus - Residential	12	113	4,266	3.15	355.50
Total	**37,705**	**11,001**	**577,192**	**4.37**	**15.31**

(1) Mt. Werner is billed quarterly. All others are billed monthly.
(2) Dwelling units for all customers are based on active end-user dwelling units billed in 2015.

The water rate and financial plan presented in the balance of this report is based on projections derived from the current number of accounts, dwelling units and volumes (billed winter water use kgal). City and wholesale customers use differing amounts of winter water use. The variance in

winter water use likely reflects differences in the proportion of primary and secondary home ownership, the size of the family occupying the home and indoor water use fixtures and practices for customers within each customer group. The annualized winter water use for each customer class and type directly affects the cost of service analysis and proposed customer rates discussed in Section 6 of this report. Annual bills, dwelling units, water use and revenues under the current rates are detailed in pages A-22 through A-39.

3.3 GROWTH ASSUMPTIONS

City customer growth is projected at 55 EQRs or a rate ranging from 0.90% to 0.99% over the Study Period. Mt. Werner customer growth (wastewater only) is projected at 50 EQRs each year of the study period or a rate ranging from 0.68 to 0.64% over the Study Period.

No growth is anticipated within Tree Haus or Steamboat II. Since Mt. Werner is a wastewater-only City customer, the projected water system growth is anticipated to occur from within the City water service area.

4. WATER AND WASTEWATER FINANCIAL PLAN

4.1 FINANCIAL PLAN RESULTS

The multi-year water and wastewater financial plan, supporting worksheets and calculations, revenue projections, and assumptions are detailed in Appendix A and E respectively.

Each of the separate water and wastewater financial plans are organized around a total fund with separate operations and tap fee subfunds. The water and wastewater rate revenue requirements of the respective operations subfunds represent the cost of providing service and include operation and maintenance (O&M) expenses, non-growth capital related costs (cash funded project costs and debt service), other miscellaneous cash inflows and outflows and loans to/repayment from the tap fee subfunds.

Growth-related capital costs (cash funded project costs and debt service) are assigned to the tap fee subfund and are paid for via tap fees. Where there are deficiencies in the tap fee subfund, loans from the operations subfund are made to maintain financial performance thresholds and fund tap fee subfund expenditures. As needed and as the financial performance of the tap fee subfunds allow, repayments to the operations subfunds are also made during the course of the 10-year study period.

4.1.1 Financial Performance Criteria

The financial plans evaluate the adequacy of system revenues, adjusted for customer and demand-related (water use and wastewater flow) growth, to:

- Fund annual operation and maintenance (O&M) expenses, debt service, and capital expenditures
- Maintain the following financial performance thresholds:
  - Exceed debt service coverage (DSC) ratio targets2 of at least 1.50 times annual debt service, including annual tap fee revenue, with a legal requirement of 1.10 times annual debt service for existing wastewater loans.
  - Exceed end of year cash reserve targets of
    - Water Fund: 25% of O&M expenses plus $500,000
    - Wastewater Fund: 20% of O&M expenses plus $500,000

DSC is a measure of a borrower's ability to repay its debt obligations. The projected financial plan is generally designed to achieve a 1.50 times annual DSC ratio consistent with current City financial policies. At a ratio of 1.50, the revenues available for debt service would be 50% greater than the

[2] Debt service coverage ratio is the ratio of total system revenues less operating expenditures (referred to as "net revenues") divided by the annual debt service.

annual debt service payment. In addition to the City's financial policy related to DSC, the City's existing wastewater loans require debt service coverage of 1.10 times annual debt service. The current water loan does not have a legal debt service coverage requirement. Pages A-14 and E-13 summarize the projected annual DSC ratio on existing and projected annual debt service for water and wastewater respectively; however, prudent financial management would dictate a DSC ratio of at least 1.50 times and even higher due to the variability in water revenues.

If system revenues are not adequate to fund annual expenditures and meet or exceed financial performance requirements, the following three variables are used to balance the financial plan:

- Draw down accumulated reserves to fund annual expenditures
- Issue debt to fund a portion of annual capital improvements
- Increase user charges

While revenue increases in each year of the study period are currently projected, adjustments to the increases projected may also be necessary depending on the level of future CIP expenditures and a variety of other factors, including, but not limited to system growth, water use patterns, inflation, and regulatory requirements. At a minimum, annual reviews should be used to periodically assess the condition of the water fund and necessity of future rate revenue adjustments with a comprehensive updated completed in the next three to five years.

4.1.2 Water Fund Financial Plan Results

2016 water charge revenues (revenues from the monthly rates assessed to customers) are estimated at $2.19 million. Figure 4-1 summarizes projected water rate revenue increases over the 10-year Study Period necessary to fund annual expenditures and meet financial performance criteria and do not necessarily equate to the overall rate increase for a specific class of customers or an individual customer. The proposed water rates for service for each customer class necessary to generate the increased revenue by year are included in Section 5.2 of this report.

Figure 4-1: Projected Annual Water Rate Revenue Increases

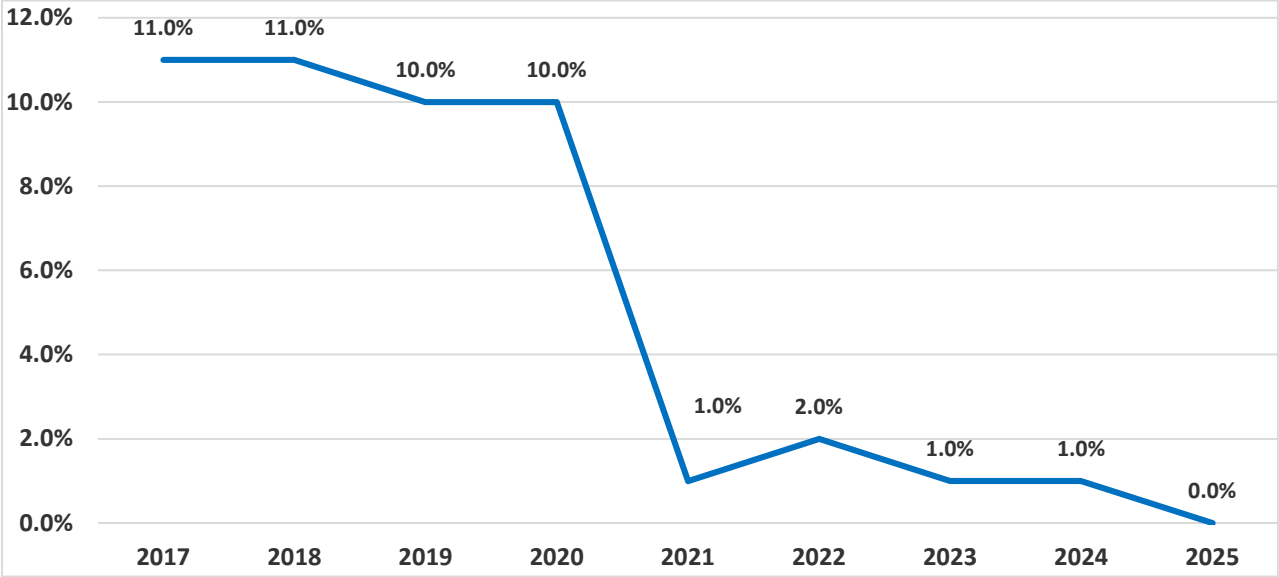
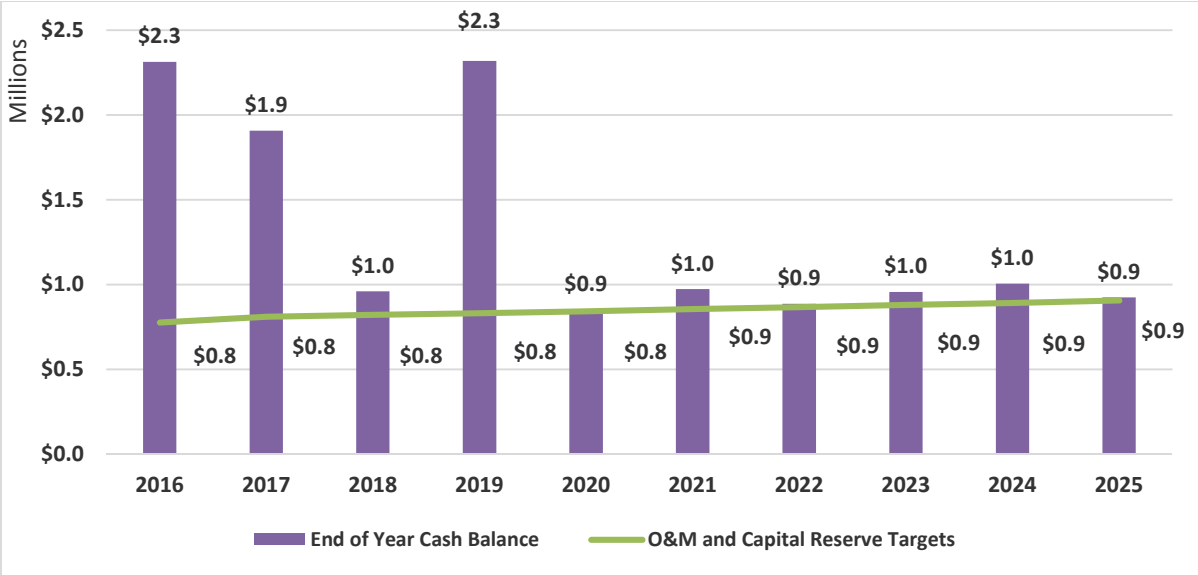


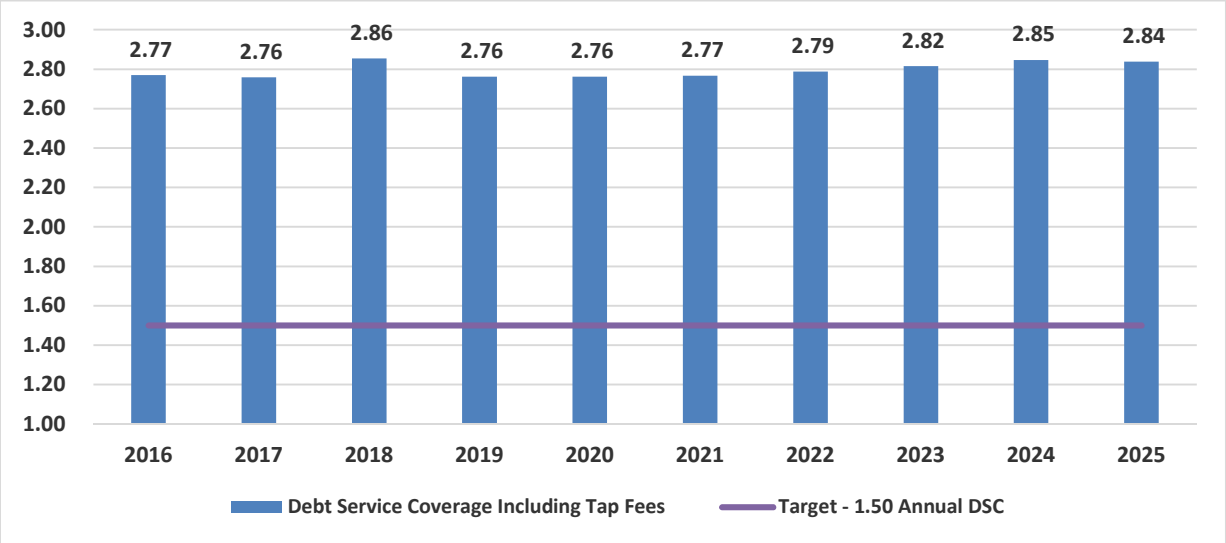
Figure 4-2 shows the end-of-year cash balance and O&M and capital reserves for the water total fund.

Figure 4-2: Projected Water Total Fund End-of-Year and Reserve Targets



It is prudent financial to target DSC ratio that are higher than the legal minimum as water usage and revenues fluctuate annually within the City due to both weather and tourism and seasonal visitors. Figure 4-3 shows DSC ratio including tap fees as compared with the targets.

Figure 4-3: Projected Annual Water DSC



4.1.2.1 Total Water Fund

All water fund revenues and expenditures are combined in two separate total funds summarized on page A-2. For financial planning purposes, RFC evaluated two different subfunds; an operating subfund and tap fee subfund within the water enterprise fund. A water fund balance per City staff of approximately $2.82 million was available as of January 1, 2016 entirely within the operations subfund.

The water operations subfund is summarized on page A-3. Revenues include those generated from water user charges and a variety of miscellaneous revenues. Expenditures include O&M expenses, non- growth related debt service and CIP as well as additional cash inflows and outflows including future debt proceeds and expenses, transfers to the City's general fund and loans to and repayments from the tap fee subfund.

The water tap fee subfund is summarized on page A-4. Revenues include tap fee revenues and interest earnings. Expenditures include growth-related debt service and CIP as well as additional cash inflows and outflows including future growth-related debt proceeds, debt issuance expenses and debt service reserve requirements and loans from repayments to the operations subfund, and available proceeds from a previous Colorado Water Resources and Power Development Authority (CWRPDA) debt issue.

4.1.2.2 User Charge Revenues

RFC projected existing rate revenues based on historical 2014 and 2015 usage patterns and the current water rate structure. These projections are adjusted based on customer growth and developed in a variety of worksheets included in pages A-23 through A-40. In Section 4 of this report, proposed water rate alternatives are discussed. The proposed alternative water structures are revenue neutral, i.e., each alternative is projected to generate the same amount of water rate revenue for the years 2017 through 2019.

4.1.2.3 Tap Fee Revenues

Tap fees are one-time capital recovery fees assessed to new and/or increased development to recover the cost of system capacity necessary to serve customers. Proposed tap fees are discussed in Section 7 of this report. Water tap fee revenues include a water system and water resources tap fee applied to each EQR with 140 fixture points per EQR as detailed in page A-4. For financial planning purposes, this revenue stream is not sufficient to fully fund annual growth-related capital cost requirements and meet the established financial performance criteria. A combination of external debt and loans from the operations fund are required to fund the anticipated growth-related capital above the amount funded by projected tap fee revenues. These loans are repaid as the tap fee subfund has funds available above the growth-related capital reserve requirement of approximately $250,000.

4.1.2.4 Miscellaneous Revenues

The water fund has a variety of miscellaneous fee and charge revenues listed on page A-2 within the revenue lines. The financial plan incorporates these revenues based on the 2016 budgeted revenues increased by 1% per year throughout the study period with the exception of interest earnings. Interest earnings are projected based on the average annual cash balance and an interest earnings rate of 2%.

4.1.2.5 O&M

Pages A–7 through A-10 summarizes projected water utility O&M expenditures over the 10-year study period. Projected O&M expenditures are based on the City's line-item 2016 budget and adjusted for anticipated cost increases and inflation ranging from $1.1 million in 2016 to $1.6 million by 2025.

A 4% annual cost inflation is assumed for benefit related O&M expenses annually. In 2017, a 10% increase to personnel-related O&M expenses is included to adjust to a 40-hour week for utility employees, followed by 4% inflationary increases annually. 3% annual cost inflation is also assumed for all other types of O&M expenses annually over the 10-year study period.

In addition to increases starting in 2017 for current budgeted O&M expenses, the City also identified additional O&M costs including $15,000 for dam engineering and wellfield water treatment plant compliance, $5,000 for cross connection control rule, $50,000 for Elk River raw water storage, and $10,000 consumer account monitoring software. All of these costs are expected to be incurred in 2017, escalating at a rate of 4% per year.

4.1.2.6 Capital Improvement Projects

CIP is based on City staff-provided CIP projections in current year (2016) dollars for the years 2016-2025. The water fund CIP totals $25.47 million, inflation-adjusted, and is summarized in pages A-11 through A-13. The detailed project listing includes the dollar amount in current year and inflated dollars based on the anticipated year expended over the 10-year study period.

The City's CIP is divided into two parts, growth-related and non-growth related projects.
The 10-year financial plan and capital funding incorporate the inflated CIP amounts based on the anticipated timing of the projects and an assumed annual capital inflation rate of 3% starting in

2017.

Growth-related project costs are the portion of the CIP line item that is related to expanding or adding system capacity to serve future customers. The growth-related CIP costs are incorporated in the separate water tap fee subfund and totals $9.68 million, inflation-adjusted, over the 10-year study period. The tap fee subfund expenditures (growth-related capital and/or debt service) are generally funded by annual tap fee revenues.

Non-growth related projects are the portion of the CIP line-item related to repairing or replacing existing system assets for current system customers. The non-growth related CIP costs are incorporated in the separate water operations subfund and totals $15.79 million, inflation-adjusted. The operations subfund expenditures (O&M, non-growth related capital and/or debt service) are generally funded by annual user charge revenues.

4.1.2.7 Debt and Debt Service

The City has a single outstanding water loan. Pages A-13 through A-19 summarize existing outstanding and projected water annual loan or debt obligations, annual debt service, and projected debt issues.

- Water debt is projected to be required in 2017 of $1.6 million and again in 2019 of $3.0 million, to fund a portion of both future growth and non-growth related capital expenditures.
- Projected debt is assumed at a 20-year term and includes issuance costs of 1% funded from the proceeds of the debt issue. A debt service reserve requirement equal to one-year annual debt service is assumed and funded by system cash in the year of issuance.
- Projected 2017 debt is based on a 4.00% interest rate. To conservatively project future requirements, debt in 2018 through 2020 is assumed with a 4.50% interest rate, and debt in 2021 through 2025 is assumed with a 5.00% interest rate.

4.1.2.8 Other Cash Inflows / Outflows

Other cash inflows / outflows include projected debt proceeds, debt issuance costs and debt service reserve deposits, annual CIP, and any grants.

The water operations subfund is loaning funds to the water tap fee subfund to fund expenditures not fully funded by projected tap fee revenues as summarized on page A-19. The loans earn an interest rate of 2% that cumulates and are repaid as excess cash balance within the tap fee subfund are available. In 2025, the intrafund loan balance outstanding is projected to be $2.92 million in the water fund. RFC recommends that the City establish a formal loan agreement/memorandum, to document this intra-fund loan arrangement and payback terms.

4.1.3 Wastewater Fund Financial Plan Results

2016 wastewater charge revenues are estimated at $3.42 million. Figure 4-4 summarizes projected wastewater rate revenue increases over the 10-year study period necessary to fund annual expenditures and meet financial performance criteria and do not necessarily equate to the overall rate increase for a specific class of customers or an individual customer. The proposed wastewater rates for service for each customer class necessary to generate the increased revenue by year are included in Section 6.2 of this report.

Figure 4-4: Projected Annual Wastewater Rate Revenue Increases

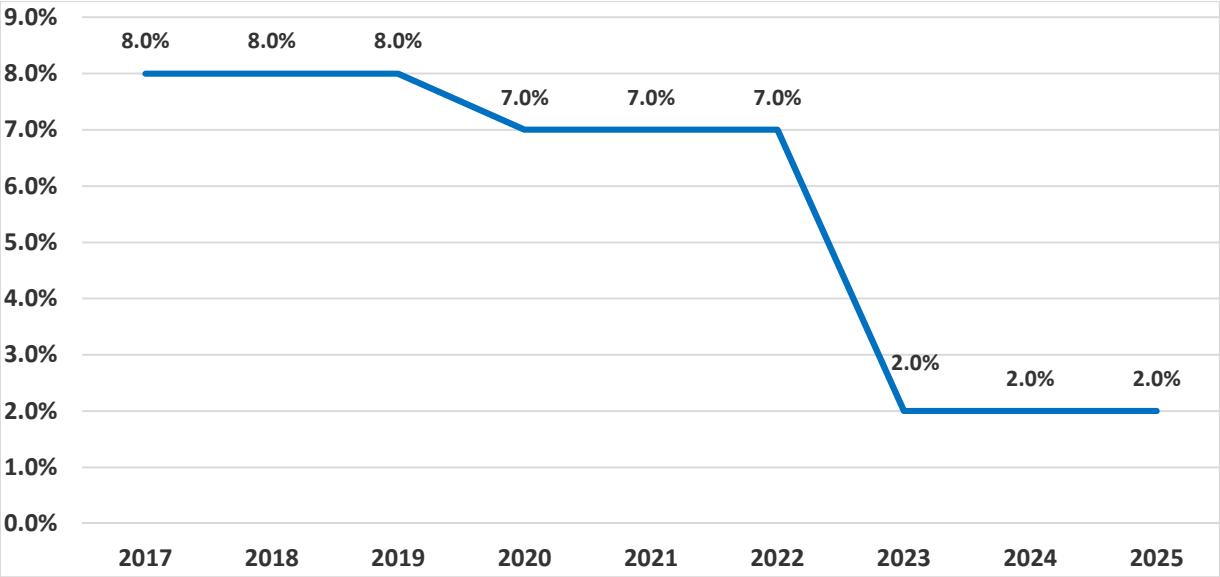
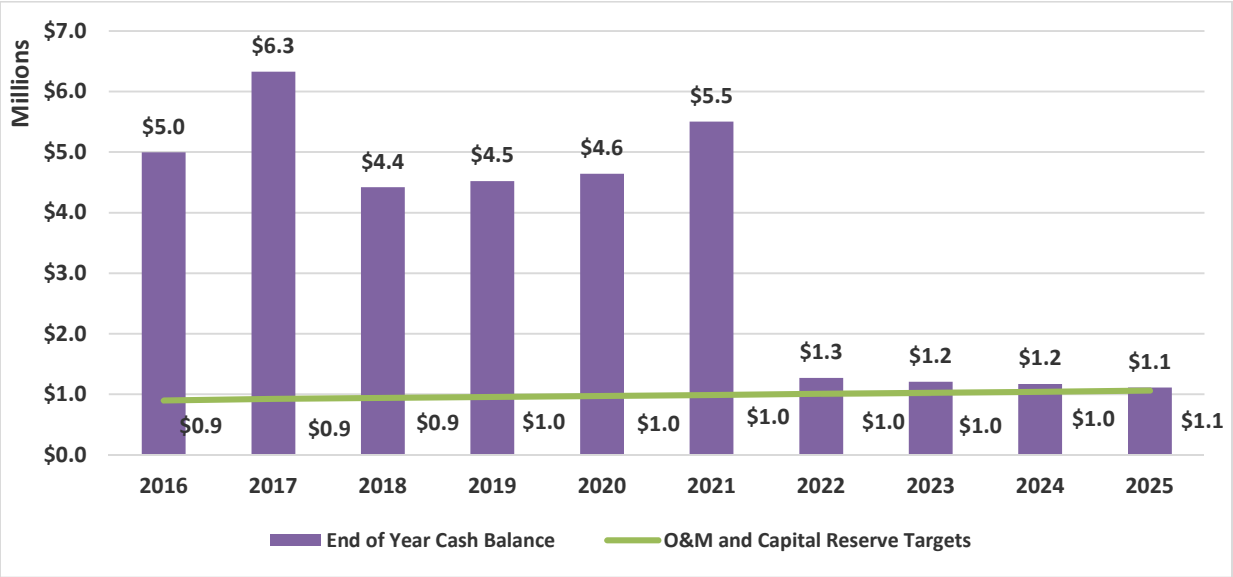


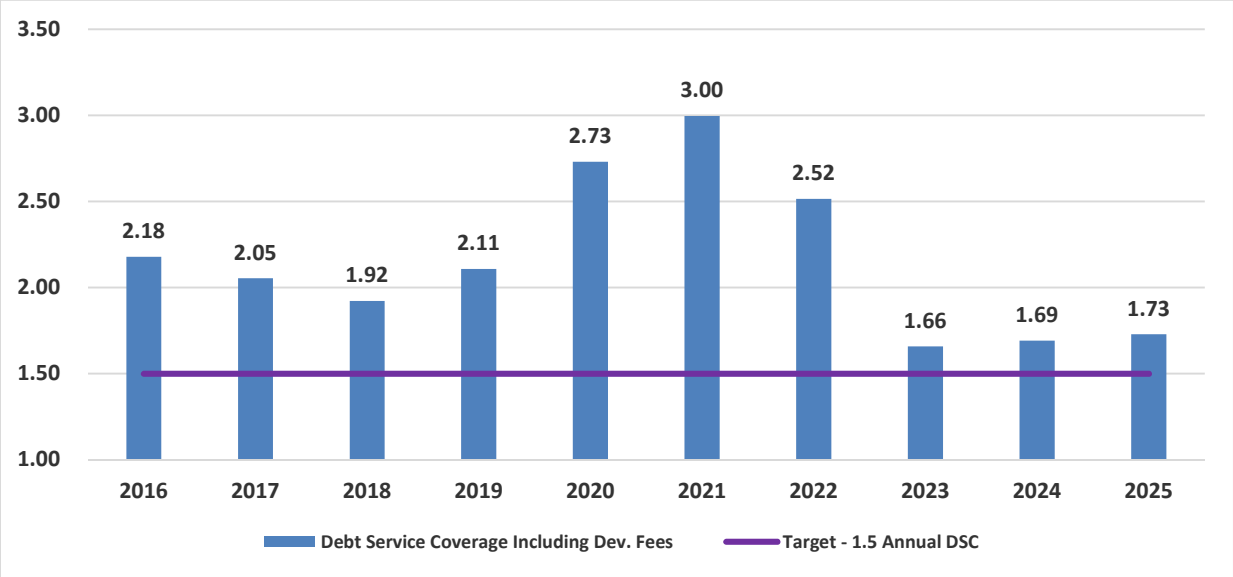
Figure 4-5 shows the end-of-year cash balance and O&M and capital reserves for the wastewater total fund.

Figure 4-5: Projected Wastewater Total Fund End-of-Year and Reserve Targets



Figures 4-6 shows DSC ratio including tap fees as compared with the targets. After issuing debt in 2022 to fund a portion of the WWTP capital project, annual debt service increases and the projected DSC ratio results are close to the target of 1.50 annual debt service.

Figure 4-6: Projected Annual Wastewater DSC



4.1.3.1 Total Wastewater Fund

All wastewater fund revenues and expenditures are combined in two separate total funds summarized on page E-2. For financial planning purposes, RFC evaluated two different subfunds; an operating subfund and tap fee subfund within the wastewater enterprise fund. A wastewater fund balance of approximately $5.49 million was available as of January 1, 2016.

The wastewater operations subfund is summarized on page E-3. Revenues include those generated from wastewater user charges and a variety of miscellaneous revenues. Expenditures include O&M expenses, non- growth related debt service and CIP as well as additional cash inflows and outflows including future debt proceeds and expenses, transfers to the City's general fund and loans to and repayments from the tap fee subfund.

The wastewater tap fee subfund is summarized on page E-4. Revenues include tap fee revenues and interest earnings. Expenditures include growth-related debt service and CIP as well as additional cash inflows and outflows including future growth-related debt proceeds, debt issuance expenses and debt service reserve requirements and loans from repayments to the operations subfund, and available proceeds from a previous CWRPDA debt issue.

4.1.3.2 User Charge Revenues

RFC projected existing rate revenues based on historical 2014 and 2015 usage patterns and the current wastewater rate structure. These projections are adjusted based on customer growth and developed in a variety of worksheets included in pages E-24 through E-39. Proposed wastewater rate alternatives are discussed in Section 5. The proposed alternative wastewater structures are revenue neutral, i.e., each alternative is projected to generate the same amount of wastewater rate revenue for the years 2017 through 2019.

4.1.3.3 Tap Fee Revenues

Tap fees are one-time capital recovery fees assessed to new and/or increased development to recover the cost of system capacity necessary to serve customers. Proposed wastewater tap fees are discussed in Section 7 of this report. For financial planning purposes, this revenue stream is not sufficient to fully fund annual growth-related capital cost requirements and meet the established financial performance criteria. A combination of external debt and loans from the operations fund are required to fund the anticipated growth-related capital above the amount funded by projected tap fee revenues. These loans are repaid as the tap fee subfund has funds available above the growth-related capital reserve requirement of approximately $125,000.

4.1.3.4 Miscellaneous Revenues

The wastewater fund has a variety of miscellaneous fee and charge revenues listed on page E-2 within the revenue line. The financial plan incorporates these revenues based on the 2016 budgeted revenues increased by 1% per year throughout the study period with the exception of interest earnings. Interest earnings are projected based on the average annual cash balance and an interest earnings rate of 2%.

4.1.3.5 O&M

Wastewater O&M expenses are included in pages E-7 through E-9. Projected O&M expenditures are based on the City's line-item 2016 budget and adjusted for anticipated cost increases and inflation ranging from $2.0 million in 2016 to $2.8 million by 2025.

A 4% annual cost inflation is assumed for benefit related O&M expenses annually. In 2017, a 10% increase to personnel-related O&M expenses is included to adjust to a 40-hour week for utility

employees, followed by 4% inflationary increases annually. 3% annual cost inflation is also assumed for all other types of O&M expenses annually over the 10-year study period.

4.1.3.6 Capital Improvement Projects

Capital improvement projects (CIP) are based on City staff-provided CIP projections in current year (2016) dollars for the years 2016-2025. The wastewater CIP totals $44.19 million, inflation-adjusted, and is summarized in pages E-10 through E-12. The detailed project listing includes the dollar amount in current year and inflated dollars based on the anticipated year expended over the 10-year study period.

The City's CIP is divided into two parts, growth-related and non-growth related projects. The 10-year financial plan and capital funding incorporate the inflated CIP amounts based on the anticipated timing of the projects and an assumed annual capital inflation rate of 3% starting in 2017.

Growth-related project costs are the portion of the CIP line item that is related to expanding or adding system capacity to serve future customers. The growth-related CIP costs are incorporated in the wastewater tap fee subfund and totals $3.48 million, inflation-adjusted, over the 10-year study period. The tap fee subfund expenditures (growth-related capital and/or debt service) are generally funded by annual tap fee revenues.

Non-growth related projects are the portion of the CIP line-item related to repairing or replacing existing system assets for current system customers. The non-growth related wastewater CIP costs are incorporated in wastewater operations subfund and total $40.71 million, inflation-adjusted. The operations subfund expenditures (O&M, non-growth related capital and/or debt service) are generally funded by annual user charge revenues. Much of the non-growth related debt is due to a planned WWTP capital improvement to address nutrient and temperature regulations. As the City continues to plan for this improvement, the projected cost may increase or decrease affecting proposed and planned wastewater rate revenue increases and customer rates for service.

4.1.3.7 Debt and Debt Service

The City has three outstanding wastewater loans. Pages E-13 through E-18 summarize existing outstanding and projected wastewater annual loan or debt obligations, annual debt service, and projected debt issues.

- Wastewater debt is projected to be required in 2017 of $5.6 million and again in 2022 of $19.5 million to fund a portion of both future growth and non-growth related capital expenditures.
- Projected debt is assumed at a 20-year term and includes issuance costs of 1% funded from the proceeds of the debt issue. A debt service reserve requirement equal to one-year annual debt service is assumed and funded by system cash in the year of issuance.
- Projected 2017 debt is based on a 4.00% interest rate. To conservatively project future requirements, debt in 2018 through 2020 is assumed with a 4.50% interest rate, and debt in 2021 through 2025 is assumed with a 5.00% interest rate.

4.1.3.8 Other Cash Inflows / Outflows

Other cash inflows / outflows include projected debt proceeds, debt issuance costs and debt service reserve deposits, annual CIP, and any grants.

The wastewater operations subfund is loaning funds to the wastewater tap fee subfund to fund expenditures not fully funded by projected tap fee revenues as summarized in page E-19. The loans earn an interest rate of 2% that cumulates and are repaid as excess cash balance within the tap fee subfund are available. In 2025, the intrafund loan balance outstanding is projected to be $1.28 million in the wastewater fund. RFC recommends that the City establish a formal loan agreement/memorandum, to document this intra-fund loan arrangement and payback terms.

5. WATER COST OF SERVICE ANALYSIS AND RATE ALTERNATIVES

5.1 COST OF SERVICE

RFC completed a cost of service analysis for a 2019 test year to identify the cost to provide service to retail and wholesale customer classifications as summarized in Appendix B.

5.1.1 Revenue Requirements

The total 2019 revenue requirements consist of $1.33 million of operating expenses and $1.76 million of capital costs. These costs are offset by $37,000 in other miscellaneous revenue sources and sources and uses (e.g., miscellaneous revenues, projected debt) and the change in cash balance of operations subfund. Water user charge revenues of $3.05 million are required to fund the remaining revenue requirements as summarized by page B-1.

Table 5-1: Water Fund Revenue Requirements

Description	Test Year 2019
O&M Expenses	$1,327,214
Capital Costs	1,759,235
Other Cash (Inflows) / Outflows	(81,956)
Increase in Cash Reserves	45,378
Water User Charge Revenues	**$ 3,049,872**

5.1.2 Units of Service

Service requirements for each class are based on the average daily water use projections and estimates of each class' maximum day and maximum hour demands and metering and billing requirements. Page B-9 summarizes projected 2019 class units of service.

The base cost responsibility varies with annual class water usage. Average day quantities are based on an analysis of the City's water billing records.

The responsibility for extra capacity costs varies with class extra capacity requirements for maximum day and maximum hour demands. Average day usage and capacity factors, representing the estimated relationship between individual class peak demand and average day usage, are used to develop extra capacity requirements for maximum day and maximum hour demands. The estimated capacity factors are based on an analysis of each class' average and peak monthly usage characteristics as derived from a detailed analysis of City's water billing records.

Fire protection costs evaluated include those related to maintenance of fire hydrants for public fire protection requirements for City customers. Prior to the next comprehensive rate study, the City may consider separating private fire protection customer account information and for the purpose of calculating and assessing a private fire protection monthly service charge to recover costs associated with system capacity related to private fire protection service and system connections. Currently these costs are recovered from all customers. Pages B–18 and B-19 summarize fire flow requirements by customer class.

5.1.3 Allocation to Cost Components

There are four basic functional water cost components: base, extra capacity, customer and fire protection costs. Base costs vary directly with the quantity of water used under average day load conditions. Extra capacity costs represent those costs incurred due to customer peak daily and hourly demands for water in excess of average day usage. Customer costs include a portion of local distribution system costs, meters and services, and customer accounting and billing.

5.1.4 Allocation Factors

In order to provide adequate water service to its customers at all times, the water utility must be capable of not only of providing the total amount of water used, but also of supplying water at maximum daily and hourly demands.

Based on system design criteria, a maximum day to average day ratio of 2.40:1.00 is used based on demands experienced in the City's water system. This indicates that 42% (1 divided by 2.4) of the capacity of facilities designed and operated for maximum day demand is needed for average or base use. Accordingly, the remaining 62% is for maximum day extra capacity requirements.

Since maximum hour water usage also utilizes facilities designed and operated for average day and maximum day demands, the costs associated with meeting maximum hour demands are allocated to base, maximum day extra capacity, and maximum hour extra capacity. Based on the system design criteria, a ratio of maximum hour to annual average day water use of 3.84:1.00 is assumed. This ratio indicates that approximately 26% (1 divided by 3.84) of the capacity of facilities designed and operated for maximum hour demand is needed for average or base use, 36% (1 divided by 2.40 minus 1.00 or 1.40) is required to meet maximum day extra capacity demand, and the remaining 38% (1 divided by 3.84 minus 2.40 or 1.44) is for maximum hour extra capacity demand.

5.1.5 Allocation to Functional Cost Components

Various functions are involved in providing safe, on demand potable water to customers. Functional costs apply to both operating and capital costs. The following functional cost components were evaluated as part of the water cost of service analysis:

- Source of Supply / Water Rights: includes land and reservoir expansion
- Treatment: includes water treatment plant-related assets

- Treated Water Storage: includes water tanks
- Transmission: includes system lines that are 16 inches and greater in diameter
- Distribution: includes system lines that are less than 16 inches in diameter
- Meters & Services: Includes meter reading and physical cost of meter
- Customer Accounting and Billing: Includes administrative costs

The approach included summarizing the original cost of existing water system assets by function as well as projected CIP by function added through improvements to a 2019 test year as summarized in page B-3. Page B-5 summarizes existing assets by function and page B-4 summarizes projected cumulative system improvements by function. The totals were used to allocate capital costs.

Adjustments to cost of service include a variety of miscellaneous operating revenues and expenditures and capital expenditures (including cash inflows and outflows) as summarized in Page B-8.

Revenue requirements are generally allocated to the functional cost components and these functional costs are then allocated among service categories that reflect the design parameter of the associated facility. For example, treatment facilities are those facilities that provide treated water to the City's customers designed to meet average and maximum day demands. Thus, treatment expenses are allocated to the base and maximum day service category cost components. In similar manner, transmission expenses are allocated to base, maximum day, and maximum hour service category cost components based on the design parameters related to maximum hour demand requirements.

Administration and general expenses are identified with system facilities or activities to the extent possible to simplify the allocation process. Those expenses that are not specifically assigned are allocated in proportion to all other revenue requirements and the proportion of directly allocated capital costs based on system facilities by the 2019 test- year.

Once operating and capital facilities are organized by function, the functional costs are allocated among service demand categories based on the service provided (e.g., treatment facilities and costs are sized based to provide treated water under maximum day conditions) and summarized in pages B-3, B-7, B-8 and B-10.

Net cost of service equals total cost of service less adjustments for miscellaneous revenue sources and other sources and uses as previously discussed and summarized in page B-1.

5.1.5.1 Wholesale and Retail Water System Components

All retail and wholesale customers benefit from the majority of functional water system components assets.

Table 5-2 summarizes the system components allocated to City retail and the single wholesale water customer. Distribution assets (and capital and O&M related revenue requirements) are not allocated to Steamboat II, a wholesale customer, as this customer does not benefit from or receive service from, the City's distribution system.

Table 5-2: Water System Retail and Wholesale System Components

Cost Type	City	Steamboat II
Source of Supply / Water Rights	x	x
Treatment	x	x
Treated Water Storage	x	x
Transmission	x	x
Distribution	x	
Meters and Services	x	x
Customer Accounting and Billing	x	x

5.1.6 Unit Cost of Service

Unit cost of service forms the basis for rate design and is the quotient of net cost of service divided by the applicable units of service for retail and wholesale customers.

The unit cost of service or unit cost for the wholesale functional cost components are based on the proportional demands of all customers.

The unit cost of service or unit cost for the retail only functional cost components exclude wholesale customer units of service and based on the proportional system demands of only retail customers.

Page B-10 details the 2019 unit cost of service. The resulting unit costs for all customer and City-only system components are listed on lines 40 and 41.

5.1.7 Allocation of Costs to Customer Classes

The City currently serves water customers inside the City and one wholesale customer outside the City. The City accounts are divided into the following three customer classifications:

- Residential: Single or multi-family housing
- Commercial: Businesses, including hotels and motels
- Combined: Properties that have both residential and commercial designations

The classifications group together customers with similar service requirement characteristics and provide a means for allocating costs to customers.

Pages B-2 and B-11 through B-14 summarize the class cost of service and summary level comparison to the revenue generated under the existing rates by each customer classification.

Class cost of service is the product of unit cost of service and class units of service summarized in Table 5-3. The summary of the cost of service for each customer classification is compared to the projected 2019 revenues generated from the same customers from the current rates. Overall, the system increases required by 2019 totals approximately 35.5%. The difference between the cost of

service customer costs and the revenue generated from the current rates provides the necessary adjustment to user charges necessary to achieve cost of service results by 2019. As Steamboat II water rates are restricted to inflation, the 2019 test year cost of service of $80,967 or the amount above the inflation adjusted revenues is recovered from City customers.

Table 5-3: Test Year Water Cost of Service Compared to Revenue Under Existing Rates

Customer Class	2019 Test Year Cost of Service	2019 Revenue at Existing Rates	Indicated Revenue Increase
City			
Residential	$1,969,374	$1,508,701	30.53%
Commercial	840,072	596,959	40.73%
Combined	103,749	93,615	10.83%
Total	**2,913,195**	**2,199,275**	**32.46%**
Steamboat II	136,738	51,038	167.91%
Total System	**$3,049,933**	**$2,250,313**	**35.53%**

5.2 RATE DESIGN

RFC worked with City staff to develop three water rate alternatives to phase to cost of service results by 2019. Appendix C includes more detailed information related to proposed rates and alternatives.

5.2.1 Existing Rates

The City bills water customer monthly. The current rate structure includes a monthly charge per unit regardless of water use assessed to residential, commercial, and combined customers. Residential customers are also assessed a volume charge based on a five tier fixed block water structure and increasing charge for each tier of water use. Commercial customers are assessed a uniform volume charge per 1,000 gallons of water use. Combined customers pay the greater of the commercial uniform volume charge per 1,000 gallons of water use or the Residential base charge multiplied by the number of units. The wholesale customer, Steamboat II, is assessed a uniform charge per 1,000 gallons of water use. Table 5-4 summarizes the current water rate structure for all customers

5.2.2 Proposed 2017 through 2019 Rates

Tables 5-4 through 5-7 summarize proposed 2017, 2018 and 2019 water rates for each City customer classification under Alternatives 1, 2, and 3, respectively. Each alternative generates the same amount of revenue by customer classification and user, but bills would differ for different users that varies by alternative. The major differences between the alternatives are as follows:

- Alternative 1 reflects the current water rate structure with increases to the monthly service charges and volume rates.

» Alternative 2 also reflects the current water rate structure, but replaces the single monthly service charge per account for commercial customers with a monthly service charge that increases by meter size.
» Alternative 3 reflects the current water rate structure and includes a minimum of four thousand gallons (kgals) per residential dwelling unit per month as part of the residential and combined customer monthly service charge. Under this alternative, monthly use per dwelling unit of 0 to 4 kgals is not assessed a volume rate.

5.2.2.1 Alternative 1

Alternative 1 is based on the City's existing rate structure with annual increases to the monthly service charge per unit and volume charges per 1,000 gallon to generate annual water system rate revenue requirements and phase to cost of service results by 2019.

Table 5-4: Proposed Retail Water Rates Alternative 1 (Existing Structure)

Description	Existing	Alternative 1 Retail Rates		
	2016	2017	2018	2019
Monthly Service Charge – City				
Residential (1)	$21.96	$24.38	$27.07	$29.77
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	24.38	27.07	29.77
Residential Volume Rate per 1,000 gallons (1)				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) Low income seniors are billed at 50% of the residential rate.

5.2.2.2 Alternative 2

Alternative 2 includes a base charge for Commercial customers based on meter size. Residential rates are the same under Alternatives 1 and 2.

Table 5-5: Proposed Retail Water Rates Alternative 2 (Non-Residential Monthly Service Charge by Meter Size)

Description	Existing	Alternative 2 Retail Rates		
	2016	2017	2018	2016
Monthly Service Charge - City				
Residential (1)	$21.96	$24.38	$27.07	$29.77
Commercial				
¾-Inch Water Meter	22.78	12.88	14.30	15.72
1-Inch Water Meter	22.78	21.13	23.46	25.79
1 1/2-Inch Water Meter	22.78	42.61	47.30	52.00
2-Inch Water Meter	22.78	66.45	73.77	81.10
3-Inch Water Meter	22.78	141.87	157.51	173.15
4-Inch Water Meter	22.78	242.88	269.66	296.44
6-Inch Water Meter	22.78	536.79	595.97	655.15
8-Inch Water Meter	22.78	765.80	850.23	934.66
Combined	21.96	24.39	27.08	29.77
Residential Volume Rate per 1,000 gallons (1)				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) Low income seniors are billed at 50% of the residential rate.

5.2.2.3 Alternative 3

Alternative 3 is based on the current City's rate structure with one difference for residential customers. 4,000 gallons per unit has been included in the monthly service charge per unit so that all customers would pay a flat charge per dwelling unit until the monthly water use exceeds 4,000 gallons. Commercial and combined customers would be assessed the same monthly service charge and volume rate per 1,000 gallons as under Alternative 1, i.e., no minimum water use allowance included in the Monthly Service Charge.

Table 5-6: Proposed Retail Water Rates Alternative 3 (0-4,000 Gallons in Monthly Service Charge)

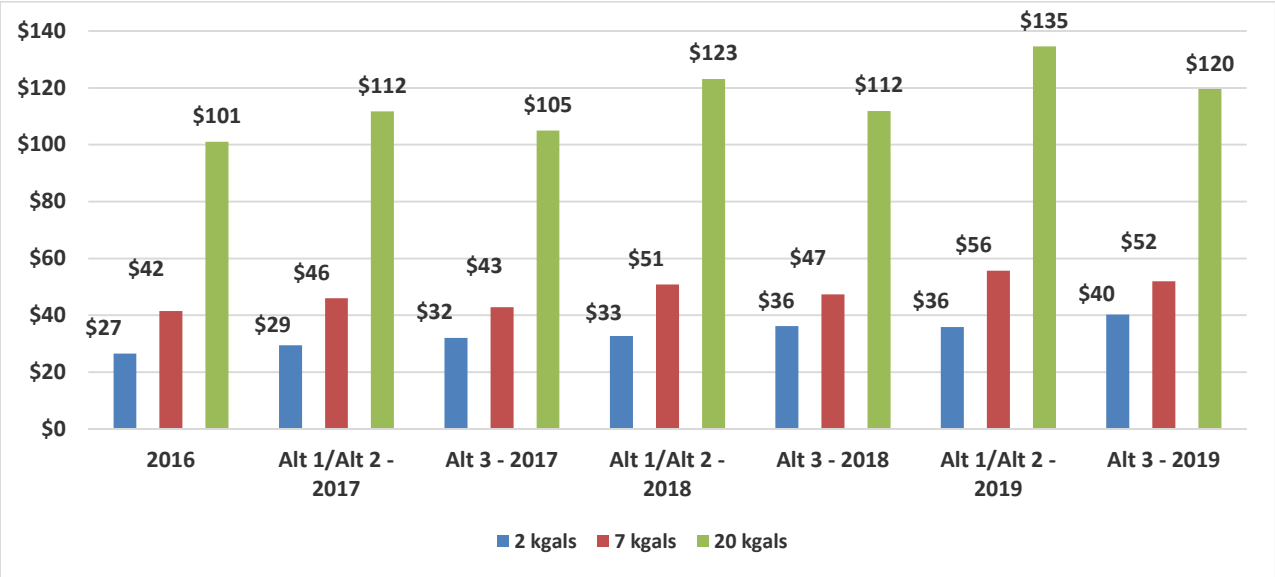
Description	Existing	Alternative 3		
	2016	2017	2018	2016
Monthly Service Charge – City (1)				
Residential (2)	$21.96	$32.06	$36.17	$40.22
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	32.06	36.17	40.22
Residential Volume Rate per 1,000 gallons				
0 - 4,000 gallons (1) (2)	2.30	0.00	0.00	0.00
4,001 - 12,000 gallons	3.45	3.60	3.74	3.92
12,001 - 20,000 gallons	5.28	5.51	5.72	6.00
20,001 - 28,000 gallons	6.89	7.19	7.47	7.83
> 28,000 gallons	10.34	10.79	11.21	11.75
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93

(1) For only Residential accounts, the first 4,000 gallons per unit is included in the Monthly Service Charge.
(2) Low income seniors are billed 50% of the residential rate.

5.2.3 Customer Bill Impact

Figure 5-1 shows the monthly bills for residential customers with that use 2, 7, and 20 kgals per month respectively in 2016 through 2019 under each alternative. Alternatives 1 and 2 are the same for residential customers. Alternative 3 results in the highest bills for lower users providing more stable revenues compared to Alternatives 1 and 2.

Figure 5-1: Residential, 1 Dwelling Unit Water Bill Impact Comparison



Figures 5-2 and 5-3 show the monthly bills for ¾-inch and 2-inch water meter commercial customers. Alternatives 1 and 3 are the same for commercial customers. Alternative 2 results in lower bills for ¾-inch customers and higher bill for 2-inch customers as the monthly service charge increases by meter size when compared to Alternatives 1 and 3 but the volume rates are the same.

Figure 5-2: Commercial 3/4-Inch Meter Water Bill Impact Comparison

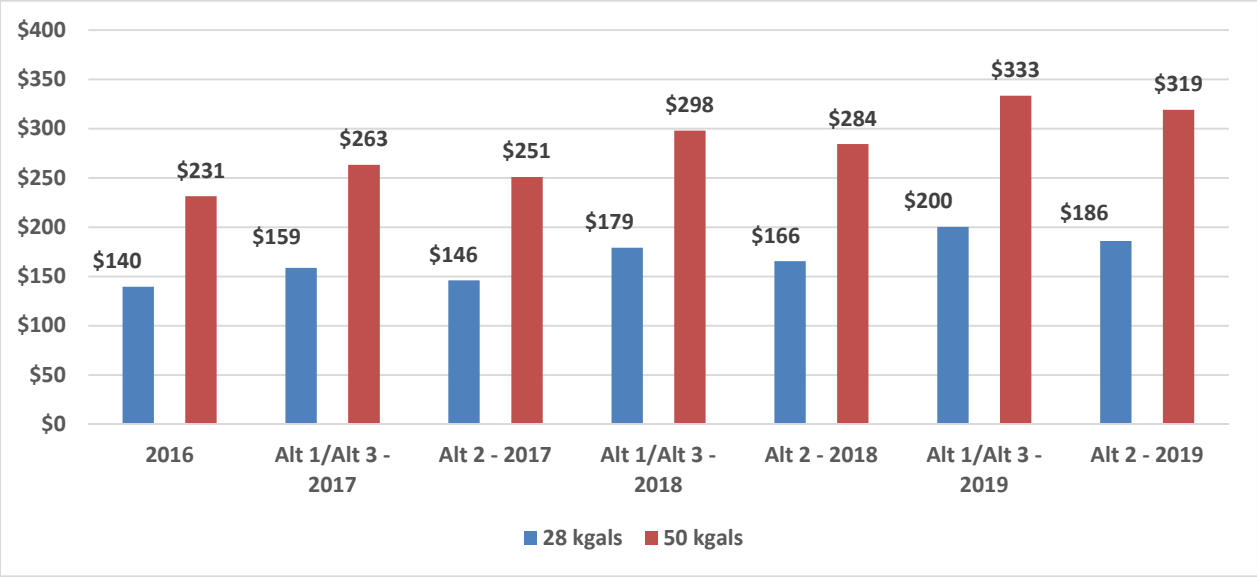
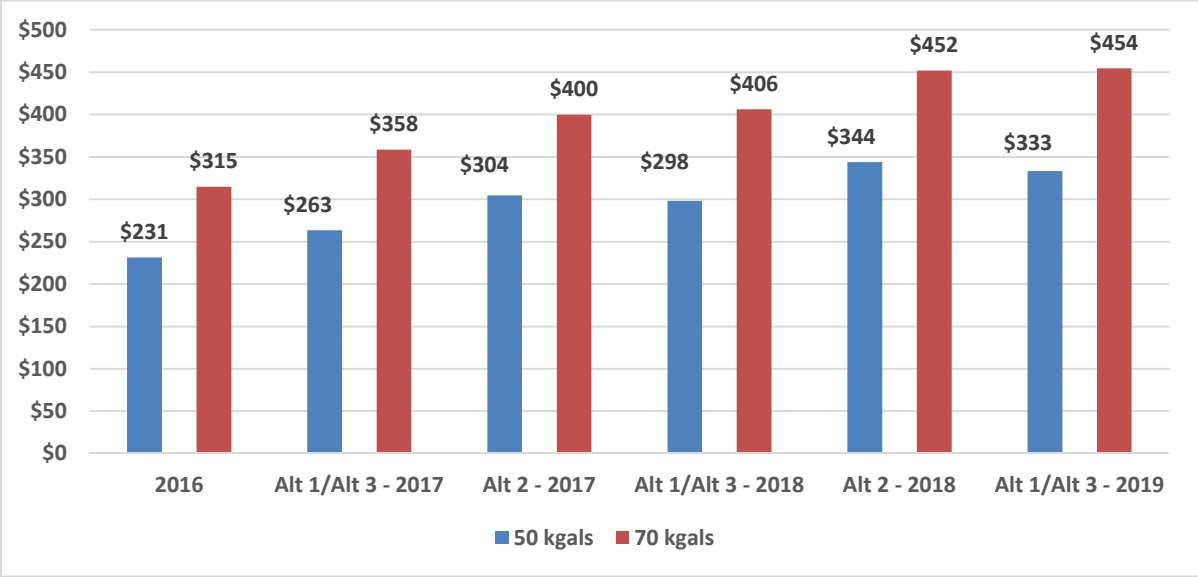


Figure 5-3: Commercial 2-Inch Meter Water Bill Impact Comparison



5.2.4 Wholesale Water Rates

Table 5-7 shows proposed water rates for Steamboat II. Steamboat II is not assessed a fixed monthly rate with all revenues generated through a volume charge per kgal assessed to master metered Steamboat II water use. The contract between the City and Steamboat II restricts rate increases to cost increases of the City's raw water costs, projected at 3% per year.

Table 5-7: Proposed Wholesale Water Rates

Description	Existing	Steamboat II		
	2016	2017	2018	2019
Steamboat II Volume Rate per 1,000 gallons (1)	$1.15	$1.19	$1.23	$1.26

(1) Inflation adjustment to rate; not cost of service.

6. WASTEWATER COST OF SERVICE ANALYSIS AND RATE ALTERNATIVES

6.1 COST OF SERVICE

RFC completed a cost of service analysis for the 2019 test year to identify customer, volume and extra strength costs as summarized in Appendix F.

6.1.1 Revenue Requirements

The total 2019 revenue requirement consists of $2.29 million of operating expenses and $1.84 of capital costs. These costs are partially offset by $257,000 in other revenue sources, including tap fees, meter sales, and interest. Wastewater user charges revenues of $4.42 million are required to fund the remaining revenue requirements as summarized in page F-1.

Table 6-1: Wastewater Fund Revenue Requirements

Description	Test Year 2019
O&M Expenses	$2,285,653
Capital Costs	1,874,509
Other Cash (Inflows)/Outflows	176,230
Increase in Reserves	80,359
Wastewater User Charge Revenues	**$ 4,416,751**

6.1.2 Units of service

Service requirements for each class are based on contributed wastewater volume and biological oxygen demand (BOD) and total suspended solids (TSS) strengths, dwelling units, metering and billing requirements. Page F-10 summarizes estimated 2019 class units of service.

Wastewater volume consists of two elements: contributed sanitary flow and infiltration/inflow (I/I) from storm event water runoff, snow melting and/or ground water that seeps into the wastewater collection and interceptor system. The City has relatively high amounts of I/I, particularly during the spring when snowpack is melting.

Contributed wastewater flow is that portion of the annual water use that enters the sanitary wastewater system. Estimates of the contributed volume are based on annualized average winter period water use from October through March for each customer classification during periods of the year which generally excludes non-wastewater water uses such as lawn sprinkling, car washing or that included in manufactured products. RFC estimated annualized winter water use period for residential, commercial and combined retail and wholesale customers as summarized in page F-9.

I/I represents approximately 41% of the total wastewater flow reaching the City's wastewater treatment plant. Each customer class should bear its proportionate share of the costs associated with I/I, as the wastewater system must be adequate to convey and process the total wastewater flow. Since the Steamboat II discharge point is metered at the City's WWTP, the total amount of wastewater flow, including I/I, is based on actual meter readings; it is not estimated. For other "major" customer groups, the City, Mt. Werner and Tree Haus, the amount of I/I is not known and the amount attributable must therefore be estimated. For these customers, RFC estimates that 50% of I/I is based on the number of customers or size of the system and 50% is based on contributed volume. The results of the incorporation of annualized winter water use and volume and customer-related I/I are detailed on page F-9.

RFC estimates that the City will generate 1.9 million, pounds of biochemical oxygen demand (BOD) and 2.0 million pounds of total suspended solids (TSS) in 2019 based on average 2014 and 2015 historical loadings adjusted for customer and discharge growth.

The City also incurs customer costs related to local wastewater collectors, meters and services and billing its wastewater customers. Local wastewater collector are allocated based on the number of dwelling units while meters and services costs are based on equivalent residential units that vary based on water meter size. Billing costs are the same for each bill regardless of service requirements.

6.1.3 Allocation to Cost Components

Various functions or processes are involved in conveying and treating wastewater influent to meet environmental standards that apply to both operating and capital costs. The following functional cost components were evaluated as part of the wastewater cost of service analysis:

- Treatment: includes WWTP-related assets
- Interceptor: includes lines that are 15 inches or greater in diameter
- Local Collection: includes lines that are less than 15 inches in diameter
- Meters and Services: includes the physical cost of the meter and meter reading
- Administration: includes billing and other administrative costs

The approach included summarizing the original cost of existing water system assets by function as well as projected CIP by function added through improvements to a 2019 test year. Page F-5 summarizes existing assets by function and page F-4 summarizes projected cumulative system improvements by functional designation. The total of the existing system assets and projected CIP as of the 2019 test year is included by functional area on page F-3.

Adjustment to cost of service include a variety of miscellaneous operating revenues and expenditures and capital expenditures (including cash inflows and outflows) as summarized in page F-8.

Page F-11 shows the results of the allocation of revenue requirements to cost components. The cost of service process follows to steps. The first step allocates revenue requirements to the functional cost components. The second step allocates the functional costs among service

characteristics. For example, wastewater treatment expenses are separated into volume, BOD, and TSS. Collection system expense is allocated to volume and customer costs (based on the proportion of interceptors and local collection lines) because a portion of the local collection lines provide available capacity to customers regardless of wastewater flow. Local collection lines are less than 15 inches in diameter. Interceptors, or the system component that conveys wastewater effluent to the WWTP, are allocated based on the volume of wastewater flows. Interceptors are greater than or equal to 15 inches in diameter.

There are three basic wastewater flow based components: volume, strength, and customer. Volume costs vary with the quantity of wastewater contributed. Strength costs vary with the strength of wastewater contributed. Customer costs vary in proportion to the number of units, customer equivalents, and annual bills.

Administration and general expenses are identified with system facilities or activities to the extent possible to simplify the allocation process. Those expenses that are not specifically assigned are allocated in proportion to all other operating expenses.

Once operating and capital facilities are organized by function, the functional costs are allocated among service demand categories based on the service provided (e.g., treatment facilities and costs are sized based to provide treated water under maximum day conditions) and summarized in pages F-3, F-7, F-8 and F-11.

Net cost of service equals total cost of service less adjustments for miscellaneous revenue sources and other sources as previously discussed and summarized in page F-1.

6.1.3.1 System Components Unit Costs

The City operates a full wastewater system for retail and wholesale customers as previously discussed. Mt. Werner and Tree Haus use the same components of the City's wastewater system while Steamboat II discharges very close the WWTP and uses different system components. Table 6-2 summarizes the system functional components and which customers benefit from each system component.

Table 6-2: Wastewater Retail and Wholesale System Components by Customer Type

Cost	City	Mt. Werner	Steamboat II	Tree Haus
Treatment	x	x	x	x
Interceptor	x	x		x
Local Collection	x			
Steamboat II Lift Station			x	
Miscellaneous / Admin	x	x	x	x

The City's WWTP and disposal costs benefit all retail and wholesale customers as do the proportional administrative costs of running the system and customer costs of meter reading, billing and customer service. The City's interceptor lines are used to convey wastewater effluent from local collection lines or system connection point with Mt. Werner / Tree Haus and benefits City retail, Mt. Werner, and Tree Haus customers. The lift station adjacent to the WWTP where

Steamboat II discharges wastewater effluent only benefits Steamboat II and no other customers. Finally, the City local collection lines throughout the system benefits only City retail customers as the pipelines collect and convey wastewater discharges to the larger interceptor lines.

6.1.4 Unit Cost of service

Unit cost of service forms the basis for rate design and is the quotient of net cost of service divided by the applicable units of service. Table F-11 summarizes the development of the 2019 test-year unit cost of service for full retail and wholesale customers based on the service received.

The unit cost of service or unit cost for the wholesale cost components are based on the proportional demands of all customers.

The unit cost of service or unit cost for the retail only functional cost components exclude wholesale customer units of service and based on the proportional system demands of only retail customers.

Lines 48 through 50 of pages F-11 summarize the 2019 unit cost of service development and results.

Allocation of Costs to Customer Classes the City serves wastewater customers inside the City and three wholesale customers outside the City as discussed in Section 3.

These classes group customers with similar service requirement characteristics and provide a means for allocating costs to customers.

Class cost of service is the product of unit cost of service and class units of service summarized in Table 6-3.

Table 6-3: Wastewater 2019 Test Year Class Cost of Service Compared to Revenue Under Existing Rates

Customer Class	2019 Test Year Cost of Service	2019 Revenue at Existing Rates	Indicated Revenue Increase
City			
Residential	$1,482,761	$1,316,321	12.64%
Commercial	715,383	487,223	46.83%
Combined	157,676	141,471	11.45%
Total City	**$2,355,820**	**$1,945,015**	**21.12%**
Wholesale			
Steamboat II - Residential	$192,898	$155,251	24.25%
Steamboat II - Commercial	1,203	796	51.13%
Total Steamboat II	**$194,101**	**$156,047**	**24.39%**
Mt. Werner - Residential	$1,072,445	$847,260	26.58%
Mt. Werner - Commercial	462,749	314,511	47.13%
Mt. Werner - Combined	301,242	210,172	43.33%
Total Mt. Werner	**$1,836,436**	**$1,371,943**	**33.86%**
Tree Haus - Residential	**$30,394**	**$33,154**	**-8.32%**
Total Wholesale	**$2,060,931**	**$1,561,144**	**32.01%**
Total System	**$4,416,751**	**$3,506,159**	**25.97%**

The summary of the cost of service for each customer classification is compared to the projected 2019 revenues generated from the same customers from the current rates. Overall, the system increases required by 2019 totals approximately 26%. The difference between the cost of service customer costs and the revenue generated from the current rates provides the necessary adjustment to user charges necessary to achieve cost of service results by 2019.

- City: 21.12%
- Steamboat II: 24.39%
- Mt. Werner: 33.86%
- Tree Haus: (8.32%)

That Mt. Werner's indicated revenue increase is larger than that of the total system of 25.97% indicates that other customer classes are currently subsidizing Mt. Werner. Conversely, Tree Haus' indicated rate revenue increase is negative, meaning that it has been subsidizing other customers to some degree. City customers are also subsidizing other customer classes slightly, as the indicated revenue increase for City customers is a few percentage points lower than the indicated increase for the total system. Steamboat II customers are largely in line with total system increases.

One of the main drivers of the proposed rates for each customer class are the anticipated treated flow volumes, and BOD and TSS as previously discussed. The treated volumes have increased since the most recent rate study with Mt. Werner volumes increasing faster than the City and the total system. As a result, a higher proportion of volume-related costs are allocated to Mt. Werner as compared to the 2010 rate study. BOD and TSS loadings have increased in 2014 and 2015 for the entire system. The increased loadings are attributed to more people visiting the City, improvements to the overall

tourism and seasonal visitors and is anticipated to continue. The result of the increase are increased portion of City and Mt. Werner commercial and combined customers for responsibility of the system loading related costs as compared to how the same costs were allocated in the 2010 rate study.

6.2 RATE DESIGN

RFC worked with City staff to develop a single wastewater rate schedule to achieve cost of service results by 2019.

6.2.1 Existing Rates

The City bills wastewater customer monthly, except for Mt. Werner which is billed quarterly. The rate structure is the same for retail and wholesale customer classifications, but the unit rate applied for City, and wholesale customers varies. The current rate structure includes a different monthly charge per unit regardless of winter water use.

Residential customers are not assessed a volume rate per 1,000 gallons of winter water use. Commercial customers are assessed a uniform volume charge per 1,000 gallons of winter water use. Combined customers are assessed the greater of the amount calculated based on the monthly charge per unit and number of dwelling units or the commercial volume rate per 1,000 gallon times monthly winter water use.

6.2.2 Proposed 2017 through 2019 Rates

RFC developed two wastewater rate structure alternatives with rates in 2017 and 2018 phasing to class cost of service by 2019 for City customers. The major differences between each alternative include:

- Alternative 1 reflects the current wastewater rate structure with increases to the monthly service charges and commercial / combined customer volume rates.
- Alternative 2 also reflects the current wastewater rate structure, but replaces the single monthly service charge for commercial / combined customers with a monthly service charge that increases by meter size.

Tables 6-7 and 6-8 summarize proposed 2017, 2018 and 2019 wastewater rates for City customers by customer classification and reflect their indicated cost of service by 2019. RFC evaluated the City's septage hauler rate per gallon summarized in page F-12 and recommends the existing rate of $0.035 per gallon be maintained through 2019.

Table 6-4: Proposed Wastewater Rates Alternative 1 (Existing Structure)

Description	Existing	Alternative 1 Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential (1)	$33.10	$34.40	$35.79	$37.29
Commercial	26.35	28.07	29.92	31.92
Combined	26.35	28.07	29.92	31.92
Volume Rate per 1,000 gallons				
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57

(1) Low income seniors are billed at 50% of the residential rate.

Table 6-5: Proposed Wastewater Rates Alternative 2 (Non-Residential Monthly Service Charge by Meter Size)

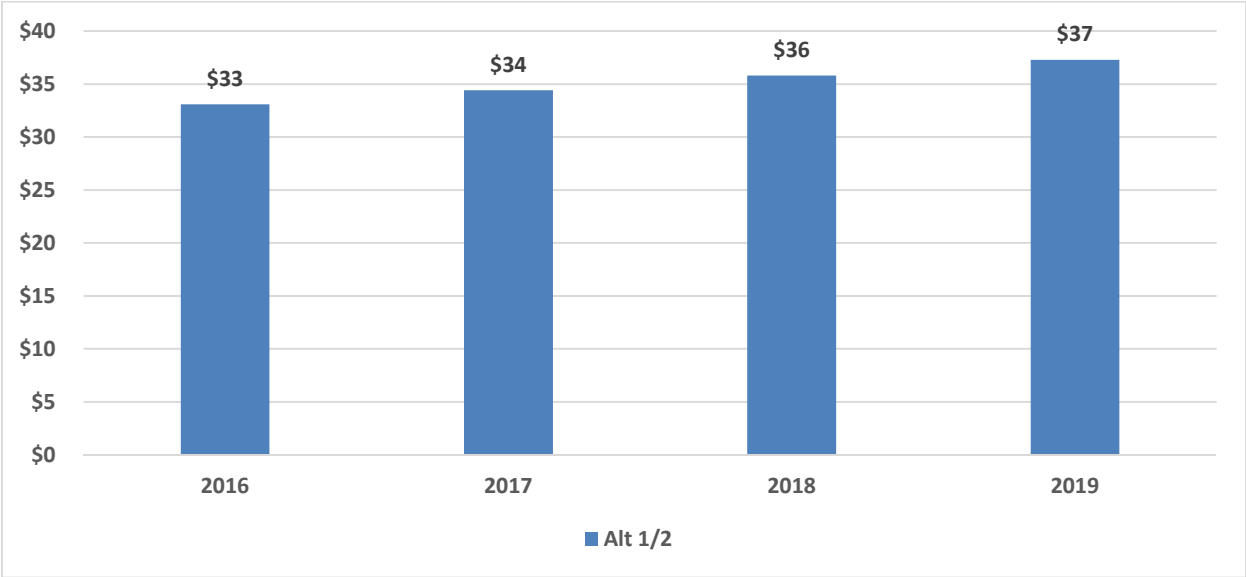
Description	Existing	Alternative 2 Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential (1)	$33.10	$34.40	$35.79	$37.29
Commercial/Combined				
3/4-Inch Water Meter	26.35	13.76	14.69	15.87
1-Inch Water Meter	26.35	22.30	23.81	25.72
1 1/2-Inch Water Meter	26.35	45.29	48.35	52.23
2-Inch Water Meter	26.35	69.42	74.12	80.07
3-Inch Water Meter	26.35	145.68	155.53	168.02
4-Inch Water Meter	26.35	249.23	266.08	287.45
6-Inch Water Meter	26.35	543.78	580.54	627.17
8-Inch Water Meter	26.35	727.90	777.10	839.52
Volume Rate per 1,000 gallons				
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57

(1) Low income seniors are billed at 50% of the residential rate.

6.2.3 Customer Bill Impact

Figure 6-1 shows the monthly bills for residential customers summarizing the increase as alternatives 1 and 2 are the same for residential customers.

Figure 6-1: Residential, 1 Dwelling Unit Wastewater Bill Impact Comparison



Figures 6-2 and 6-3 show the monthly bills for ¾-inch and 2-inch water meter commercial customers. Alternative 2 results in lower bills for ¾-inch customers and higher bill for 2-inch customers as the monthly service charge increases by meter size but the volume rates are the same.

Figure 6-2: Commercial 3/4-Inch Meter Wastewater Bill Impact Comparison

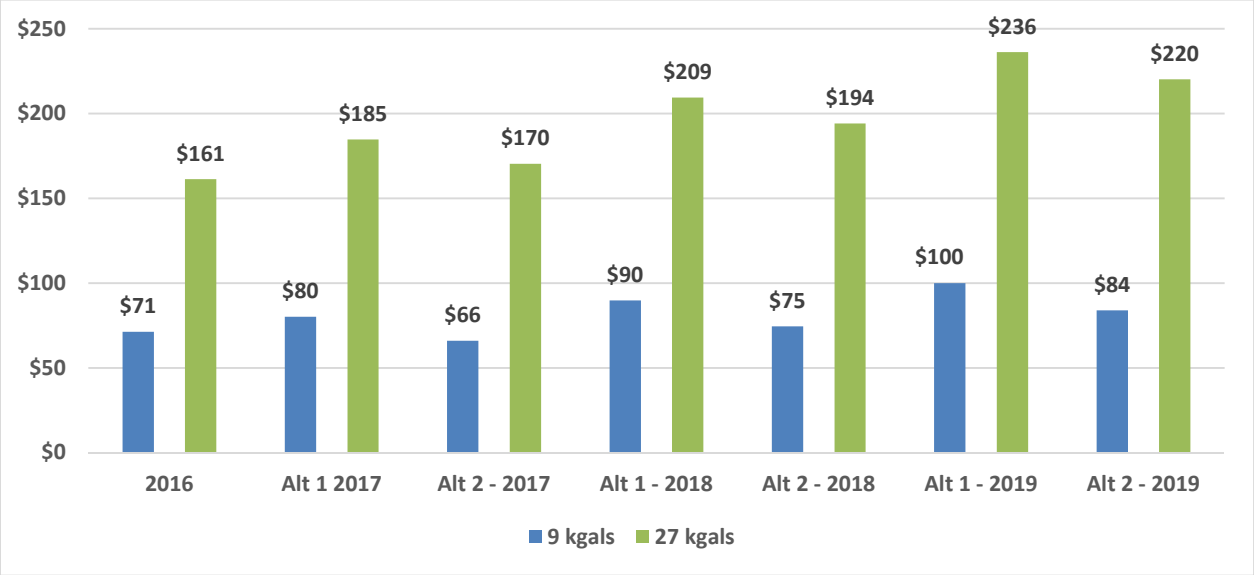
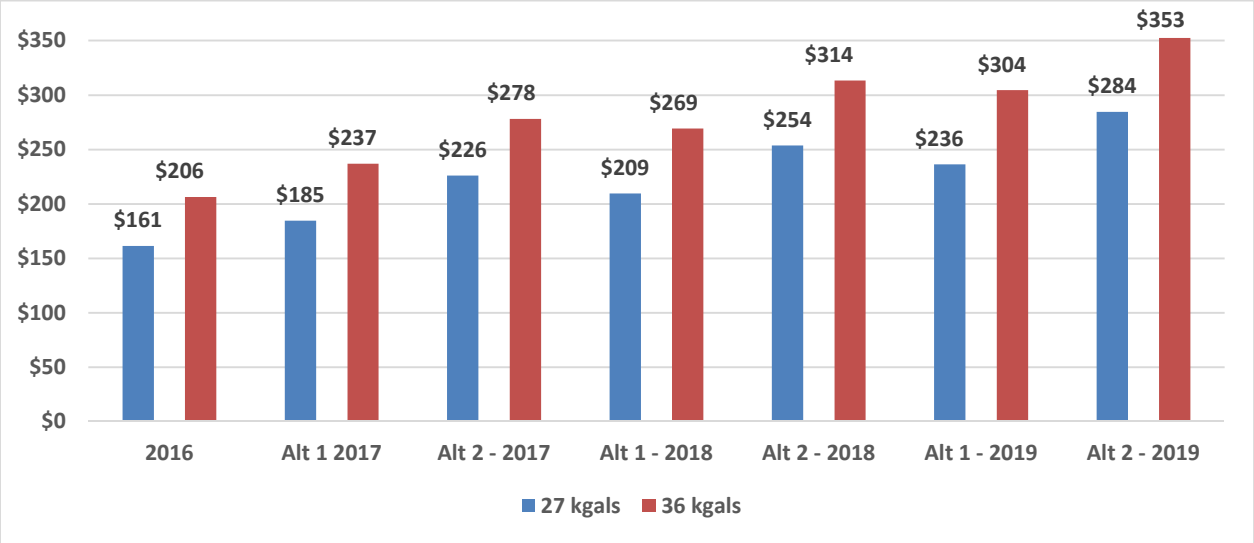


Figure 6-3: Commercial 2-Inch Meter Wastewater Bill Impact Comparison



6.2.4 Wholesale Wastewater Rates

Like retail customer rates, wholesale customer rates are designed to meet class cost of service by 2019. Residential wholesale customers pay a flat monthly fee, while commercial wholesale customers are assessed volumetric rates only. Combined Mt. Werner customers pay the greater of the monthly service charge and the volume charge. As stated above, Mt. Werner's indicated rate revenue percentage increase is higher than that of the total system. This is also reflected in the proposed rates in table 6-9 below.

Table 6-6: Proposed Wholesale Customer Wastewater Rates

Description	Existing	Wholesale Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - Steamboat II				
Residential	$31.10	$33.45	$35.97	$38.70
Volume Rate per 1,000 gallons - Steamboat II				
Commercial	4.60	5.32	6.10	6.93
Combined	4.60	5.32	6.10	6.93
Monthly Service Charge - Mt. Werner				
Residential	11.25	12.17	13.17	14.25
Combined	11.25	12.17	13.17	14.25
Volume Rate per 1,000 gallons - Mt. Werner				
Commercial	4.79	5.48	6.21	6.98
Combined	4.79	5.48	6.21	6.98
Monthly Service Charge - Tree Haus				
Residential	24.45	23.83	23.15	22.42

7. WATER AND WASTEWATER TAP FEES

RFC worked with City staff to evaluate the existing water and wastewater tap fees assessed by the City. Tap Fees are one-time capital recovery fees assessed to new and/or increased development to recover the cost of system capacity to serve new customers.

The City currently assesses four different tap fees:

- Water System tap fee,
- Water Resources tap fee,
- WWTP and interceptor tap fee assessed to city and wholesale customers, and
- Wastewater Collection tap fee assessed to only City customers.

Table 7-1 summarizes the current and proposed City water and wastewater tap fees and overall change, effective January 1, 2017. Proposed tap fees are assessed per fixture point consistent with the current approach.

Table 7-1: Current and Proposed Tap Fee Comparison

Description	Current Tap Fee	Proposed Tap Fee	Difference ($)	Difference (%)
Water				
Water Resources	$41.02	$41.62	$0.60	1.5%
Water System	28.10	30.71	2.61	9.3%
Subtotal Water	**69.12**	**72.33**	**3.21**	**4.6%**
Sewer				
WWTP/Interceptor	$36.65	$39.14	$2.49	6.8%
Collection System	5.00	7.13	2.13	42.6%
Subtotal Sewer	**41.65**	**46.27**	**4.62**	**11.1%**
Total	**$110.77**	**$118.60**	**$7.83**	**7.1%**

The proposed tap fees incorporate the replacement cost value of existing water and sewer indexed to the 20-City Engineering News Record Construction Cost Index (ENR-CCI) cost index to estimate the replacement cost of existing assets. RFC recommends that the City apply the change in this index to tap fees to maintain the fees for inflation between comprehensive updates to the water and sewer tap fees.

7.1.1 Tap Fee Overview and Background

Tap fees are one-time fees assessed to a new customer connecting to the utility system, or an existing customer who is increasing their demand on the system. The fee recovers the capital cost of system capacity dedicated to or "used up" by the new connection.

Generally, there are three recognized capital recovery methods which can serve as a rational basis for computing the capital cost of utility service as follows:

- Buy-in
- Incremental
- Hybrid

Regardless of the underlying methodology, system tap fees should fairly represent the cost per unit of capacity of system assets. The Buy-In method values the capital cost of system capacity based on the original costs of booked fixed assets. The Incremental method is a forward-looking approach, which considers only future growth-related capital projects in setting tap fees.

One shortcoming of the Incremental approach is its accounting for excess capacity in the existing system that will be used to serve new customers. This is a particular disadvantage for communities with recently completed facility expansions. Conversely, for an expanding utility, the Buy-In approach does not account for the unit cost of new facilities to be built for new customers.

The Hybrid method bases tap fees on a combination of the costs of existing system capacity and the costs of future expansion or additions over a specified planning horizon.

RFC used the Hybrid method to update the following current City tap fees:

- Water System
- WWTP / Interceptor
- Wastewater System Collection Fee

The Hybrid method is best suited for a utility like the City that has moderate growth expectations and where much of the major backbone infrastructure already exists and is sized for build-out, but some additional capital expenditures will be required to serve new customers.

The Buy-In approach was used to calculate the proposed water rights fee as it was the most recently completed water rights acquisition project undertaken by the City and is the best representation of the unit cost of future water rights investments necessary to serve new growth.

7.1.2 Water System Tap Fee Update

Page D-2 summarizes the updated water system tap fee per EQR based on the Hybrid approach.

7.1.2.1 Assets

RFC worked with City staff to calculate the replacement cost of existing water system assets summarized in pages D-3 through D-7 based on the original cost, date in service and the ENR-CCI. Assets associated with water rights have been excluded as the unit cost of this component of system assets are recovered through the new water rights tap fee. Assets acquired through developer contributions have been also excluded from the water system assets and tap fee calculation as similar asset contributions are anticipated to be required of future developers in addition to the

payment of the water system tap fee. The net asset value used is $43.37 million.

7.1.2.2 Growth-Related Capital Improvements

Future growth-related system improvements over 2016 through 2025 total $8.94 million in 2016 dollars summarized in Page D-8. City staff provided RFC with the percent of future improvements related to providing additional capacity to serve future customers included in page D-8. None of that cost is related to future growth-related water rights system improvements.

7.1.2.3 Debt

The only existing water debt issue, a Series 2011 CWRPDA Series B loan, is 41% growth-related and $962,157 (net present value (NPV) of borrowing cost) is added to the total cost for the tap fee calculation. The NPV is calculated using the growth-related interest remaining for each debt issue using the interest rate as the discount rate in calculating today's value of remaining growth-related interest payments.

Future debt is projected to be required to fund a portion of future growth-related improvements over the next ten years as summarized in page D-13.

The NPV of interest cost of future growth-related water debt issues is $1.55 million and was calculated by discounting the interest portion of future annual debt service payments by the assumed interest rate of each issue. Both the 2017 and 2019 water debt issues assume a 5.00% interest rate.

7.1.2.4 System Capacity

The water system has some excess capacity available to serve future customers as well as growth-related improvements anticipated to provide additional capacity.

Per City staff, the current water treatment plant capacity is 5.30 million gallons per day (mgd) based on:

- 4.5 mgd capacity at the Fish Creek Filtration Plant or 60% of the total 7.5 mgd plant capacity owned jointly with the Mt. Werner Water District.
- 0.8 mgd of the Yampa River Filtration Galleries.

The City's 20-year growth-related CIP includes 3.10 mgd of planned water treatment plant capacity additions as follows:

- 2.25 mgd or City's portion of a planned capacity expansion at the Fish Creek Filtration Plant.
- 0.85 mgd or City's portion of new Yampa River Filtration Galleries.

The total current and future City capacity is 7.65 mgd. Based on system design criteria for maximum day water demands of 600 gallons per day per EQR, the City will be able to serve approximately 12,750 EQRs once proposed system improvements are completed. The capacity to serve is used to calculate the unit cost per EQR summarized in page D-2.

7.1.3 Water Resources Tap Fee

Page D-1 summarizes the proposed water rights fee per fixture unit based on the Buy-in Approach.

7.1.3.1 Assets

RFC worked with City staff to calculate the replacement cost of a 1996 City water resource investment to expand the Fish Creek Reservoir and increase City water resource portfolio. The replacement cost of $7.50 million includes infrastructure, legal and financing costs summarized in Page D-1.

7.1.3.2 System Capacity

The 1996 expansion of the Fish Creek Reservoir yielded a total of 2,280 acre-feet in expanded City water resource capacity. Of this total, 1,030 acre-feet is dedicated to a fisheries conservation pool and 200 acre-feet of minimum in-stream flow yielding 1,050 acre-feet is net active additional water resources added available to serve utility customers.

1,050 acre-feet provides capacity to service 2,100 EQRs based on 0.5 acre-feet per EQR per City staff.

7.1.4 Wastewater Treatment Plant Interceptor Tap Fee

Page H-1 summarizes the proposed WWTP and interceptor tap fee per EQR based on the Hybrid approach.

7.1.4.1 Assets

RFC worked with City staff to calculate the replacement cost of total existing wastewater system assets delineated in pages H-3 through H-6 based on the original cost, date in service and the ENR-CCI. Wastewater system assets related to the WWTP and disposal of treated effluent, wastewater interceptor, and miscellaneous system were included in the replacement cost calculation for this fee and totals $49.89 million

7.1.4.2 Growth-Related Capital Improvements

Future growth-related system improvements over 2016 through 2025 and related to the WWTP and disposal and interceptor total $3.23 million in 2016 dollars summarized in page H-7. City staff provided RFC with the percent of future improvements related to providing additional capacity to serve future customers included in page H-7.

7.1.4.3 Debt

The wastewater system has the following outstanding debt issues:

- Series 1999
- Series 2001
- Series 2011

Series 1999 and 2001 were related to improvements at the WWTP and the Series 1999 and 2001

loans are considered 100% growth-related. Series 2011 funded both growth-related and non-growth-related interceptor and collection system improvements. The net present value of future interest payments associated with outstanding debt is $655,889 as summarized in pages H-11. 79% of this or $518,152 is attributed to the interceptor.

Future growth-related debt is projected to be required to fund a portion of 2017 and 2018 capital improvements as summarized in page H-13.

The NPV of interest cost of future growth-related water debt issues is $1.23 million and was calculated by discounting the interest portion of future annual debt service payments by the assumed interest rate of each issue. The 2017 debt assumes a 5.00% interest rate.

7.1.4.4 System Capacity

The wastewater system has some excess capacity available to serve future customers as well as growth-related improvements anticipated to provide additional capacity.

Per City staff, the City's portion of current WWTP hydraulic capacity is 7.5 mgd during wet weather months. No additional expansions to the wet weather WWTP hydraulic capacity is anticipated over the twenty-year period. The total future hydraulic capacity is currently anticipated to be 7.5 mgd.

The City's average day demand design criteria is 693 gallons per day per EQR. In order to evaluate the system capacity during the wet weather months where the peak flows at the WWTP are registered, RFC increased the average day design value based on the ratio of maximum daily flow during wet weather months of 5.93 mgd to the maximum daily flow during dry months of 2.388 mgd or a peak month ratio of approximately 2.5 times the average month amount. The result is an estimated flow of 693 gallons per day per EQR capacity constraint. Based on the capacity and adjusted design criteria, the City will be able to serve approximately 10,823 EQRs once proposed system improvements are completed. The capacity to serve is used to calculate the unit cost per EQR summarized in page H-1.

7.1.5 Wastewater Collection System

Page H-2 summarizes the updated wastewater collection system tap fee per EQR based on the Hybrid approach.

7.1.5.1 Assets

Wastewater collection system assets total approximately $12.60 million excluding developer contributed wastewater collection system assets.

7.1.5.2 Growth-Related Capital Improvements

The City does not anticipate future system funded growth-related collection system improvements as summarized in page H-7.

7.1.5.3 Debt

As stated above, the Series 2011 debt funded both growth-related and non-growth-related

interceptor and collection system improvements. The net present value of future interest payments associated with outstanding debt is $655,889 as summarized in pages H-11. 21% of this or $137,737 is related to the collection system. Since no additional growth-related capital is anticipated, there is no additional growth-related debt required to fund improvements.

7.1.5.4 System Capacity

The system capacity is constrained by the WWTP hydraulic capacity and the 10,823 EQRs that can be served by current and future capacity was used in the development of the proposed wastewater collection system tap fee.

Per City staff, the City's portion of current WWTP hydraulic capacity is 7.5 mgd during wet weather months. No additional expansions to the wet weather WWTP hydraulic capacity is anticipated over the twenty-year period. The total future hydraulic capacity is currently anticipated to be 7.5 mgd.

The City's average day demand design criteria is 693 gallons per day per EQR. In order to evaluate the system capacity during the wet weather months where the peak flows at the WWTP are registered, RFC increased the average day design value based on the ratio of maximum daily flow during wet weather months of 5.93 mgd to the maximum daily flow during dry months of 2.398 mgd or a peak month ratio of approximately 2.1 times the average month amount. The result is an estimated flow of 693 gallons per day per EQR capacity constraint. Based on the capacity and adjusted design criteria, the City will be able to serve approximately 10,823 EQRs once proposed system improvements are completed. The capacity to serve is used to calculate the unit cost per EQR summarized in page H-1.

APPENDIX A:

Water Financial Plan

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DECISION CRITERIA - WATER

FILE: Stmboat_W
SCHEDULE: Dec_Crit
DATE: 08/12/16
RANGE: DECCRIT1

Line No.	DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
							Projected					
1	**Rate Revenue Increase**		0.0%	11.0%	11.0%	10.0%	10.0%	1.0%	2.0%	1.0%	1.0%	0.0%
2	**Effective Month of Rate Increase**		1	1	1	1	1	1	1	1	1	1
	(effective 1st day of month: 1=Jan 12=Dec)											
3	Typical Residential Bill (1 unit and 7 kgals per month)		$34.55	$38.35	$42.57	$46.83	$51.51	$52.02	$53.06	$53.59	$54.13	$54.13
4	**Water System Fee Increase**		0.0%	9.3%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
5	**Effective Month of Fee Increase**		1	1	1	1	1	1	1	1	1	1
	(effective 1st day of month: 1=Jan 12=Dec)											
6	**Water Resource Fee Increase**		0.0%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
7	**Effective Month of Fee Increase**		1	1	1	1	1	1	1	1	1	1
	(effective 1st day of month: 1=Jan 12=Dec)											
8	Water System Fee per Fixture		$28.10	$30.71	$31.32	$31.95	$32.59	$33.24	$33.91	$34.58	$35.28	$35.98
9	Water Resource Fee per Fixture		$41.02	$41.62	$42.45	$43.30	$44.17	$45.05	$45.95	$46.87	$47.81	$48.76
	Bond/Loan Proceeds											
10	Operations Subfund	Revenue Bonds	$0	$460,000	$0	$0	$0	$0	$0	$0	$0	$0
11	Tap Fee Subfund	Revenue Bonds	0	1,170,000	0	3,000,000	0	0	0	0	0	0
12	Total		$0	$1,630,000	$0	$3,000,000	$0	$0	$0	$0	$0	$0
	Loans (to) Tap Fee Subfund from Operations Subfund											
13	Annual		($620,000)	$0	($615,000)	$0	($490,000)	($190,000)	($200,000)	($190,000)	($175,000)	($195,000)
14	Payments		-	-	-	-	-	-	-	-	-	-
15	Cumulative Loan Balance		$620,000	$632,400	$1,260,048	$1,285,249	$1,800,954	$2,026,973	$2,267,512	$2,502,863	$2,727,920	$2,922,920
16	(Principal & Accrued Int)											
	Cash Balances - End of Year											
17	Operations Subfund		$2,061,070	$1,443,120	$708,871	$754,249	$600,765	$722,400	$637,740	$700,529	$752,841	$671,858
18	Tap Fee Subfund		252,193	465,445	253,258	1,568,059	256,065	255,256	253,809	261,522	258,782	259,233
19	Total Fund		$2,313,263	$1,908,565	$962,129	$2,322,307	$856,830	$977,656	$891,549	$962,051	$1,011,623	$931,091
20	**Debt Service Coverage Includes Dev. Fees [1]**		2.77	2.76	2.86	2.76	2.76	2.77	2.79	2.82	2.85	2.84
21	**Debt Service Coverage Excludes Dev. Fees [1]**		1.92	1.92	2.08	2.08	2.15	2.14	2.15	2.17	2.19	2.17
	Cash Balance Reserve Requirements [2]											
22	Operations Subfund		$527,730	$561,710	$572,271	$583,199	$594,506	$606,207	$618,315	$630,844	$643,811	$657,230
23	Tap Fee Subfund		248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605
24	Total Fund		$776,335	$810,315	$820,876	$831,804	$843,111	$854,812	$866,920	$879,449	$892,416	$905,835
25	**Cash Reserve Ratio [3] - Operations Subfund**		186.5%	116.3%	55.2%	56.8%	43.8%	50.9%	43.5%	46.2%	48.0%	41.4%
26	**Cash Reserve Ratio [3] - Total Fund**		209.3%	153.8%	75.0%	175.0%	62.4%	68.9%	60.7%	63.4%	64.4%	57.4%
27	**Cash Reserve Ratio [4] - Operations Subfund**		163.7%	96.0%	35.6%	37.9%	25.5%	33.2%	26.3%	29.6%	31.9%	25.9%
28	**Cash Reserve Ratio [4] - Total Fund**		209.3%	113.5%	36.0%	137.3%	26.0%	33.7%	26.7%	30.4%	32.6%	26.6%
29	Cumulative Debt Issued		$0	$1,630,000	$1,630,000	$4,630,000	$4,630,000	$4,630,000	$4,630,000	$4,630,000	$4,630,000	$4,630,000
30	Cumulative % of CIP Funded by Debt		0.0%	20.1%	15.6%	34.5%	27.9%	25.4%	23.1%	21.2%	19.6%	18.2%
	Funded CIP - Inflated $											
31	Operations Subfund		$1,236,000	$2,982,947	$1,273,080	$1,352,250	$1,350,611	$1,391,129	$1,597,045	$1,475,849	$1,520,124	$1,614,657
32	Tap Fee Subfund		391,000	3,509,710	1,071,509	1,587,186	1,857,090	231,855	253,736	245,975	253,354	277,264
33	Total Annual CIP		1,627,000	6,492,657	2,344,589	2,939,436	3,207,700	1,622,984	1,850,781	1,721,823	1,773,478	1,891,921
34	Cumulative CIP Amount		$1,627,000	$8,119,657	$10,464,246	$13,403,681	$16,611,381	$18,234,365	$20,085,146	$21,806,969	$23,580,448	$25,472,369

[1] Target debt service coverage including development fees: 1.5 Legal requirement of 1.1.
[2] Target ending cash balance for capital project reserve of $500,000 allocated to operations and tap fee sub funds based on relative percent of CIP over a 5-year period allocated to two sub funds.
[3] Target ending cash balance as a percent of O&M expenditures: 25% without reducing fund balance for capital reserve target of $500,000.
[4] Excludes Capital Reserve Cash balance target. Target ending cash balance as a percent of O&M expenditures: 25% after reducing fund balance for capital reserve target of $500,000.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - TOTAL FUND

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 08/12/16
RANGE: CF_TOTAL

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Projected					
	Operating Revenues										
1	Water User Charges	$2,187,188	$2,451,144	$2,746,698	$3,049,872	$3,386,192	$3,451,667	$3,552,920	$3,620,938	$3,689,911	$3,722,624
2	Meter Sales	5,000	5,050	5,101	5,152	5,203	5,255	5,308	5,361	5,414	5,468
3	Misc Chgs - taxable	5,500	5,555	5,611	5,667	5,723	5,781	5,838	5,897	5,956	6,015
4	Tap Fees	534,221	585,588	581,138	592,341	603,634	615,013	626,474	638,011	649,620	661,294
5	Charges for Service	8,500	8,585	8,671	8,758	8,845	8,934	9,023	9,113	9,204	9,296
6	Penalties	0	0	0	0	0	0	0	0	0	0
7	Interest Income - Invest	61,500	46,265	38,171	19,242	46,446	17,136	19,553	17,831	19,241	15,057
8	Filtration Bay Lease Pmt	52,200	50,868	49,535	48,203	46,871	45,539	0	0	0	0
9	**Total Operating Revenues**	2,854,109	3,153,055	3,434,925	3,729,233	4,102,914	4,149,324	4,219,115	4,297,150	4,379,346	4,419,755
	Operating Expenditures										
10	Operating	1,105,341	1,241,262	1,283,504	1,327,214	1,372,444	1,419,247	1,467,679	1,517,798	1,569,664	1,623,340
11	**Total Operating Expenditures**	1,105,341	1,241,262	1,283,504	1,327,214	1,372,444	1,419,247	1,467,679	1,517,798	1,569,664	1,623,340
12	**Net Income Available for Debt Service**	1,748,768	1,911,793	2,151,420	2,402,019	2,730,470	2,730,078	2,751,437	2,779,352	2,809,681	2,796,415
	Debt Service										
13	Debt Service Payments - Existing	631,319	631,814	632,078	631,814	634,124	632,144	632,639	632,903	632,507	630,902
14	Debt Service Payments - New	0	60,595	121,189	237,657	354,124	354,124	354,124	354,124	354,124	354,124
15	**Total Debt Service**	$631,319	$692,408	$753,267	$869,470	$988,248	$986,268	$986,763	$987,027	$986,631	$985,026
16	***DSC Ratio (1)***	***2.77***	***2.76***	***2.86***	***2.76***	***2.76***	***2.77***	***2.79***	***2.82***	***2.85***	***2.84***
17	**Income Available After Debt Service**	$1,117,449	$1,219,385	$1,398,153	$1,532,548	$1,742,223	$1,743,810	$1,764,674	$1,792,326	$1,823,050	$1,811,389
	Other Cash Inflows/(Outflows)										
18	Grants	0	0	0	0	0	0	0	0	0	0
19	Additional Cash Inflow / (Outflow)	0	0	0	0	0	0	0	0	0	0
20	Bond/Loan Proceeds	0	1,630,000	0	3,000,000	0	0	0	0	0	0
21	Capital Improvements	(1,627,000)	(6,492,657)	(2,344,589)	(2,939,436)	(3,207,700)	(1,622,984)	(1,850,781)	(1,721,823)	(1,773,478)	(1,891,921)
22	Debt Service Reserve Deposit (New Debt)	0	(121,189)	0	(232,935)	0	0	0	0	0	0
23	Transfer to General Fund	0	0	0	0	0	0	0	0	0	0
24	Loan (To) Tap Fee Subfund	0	0	0	0	0	0	0	0	0	0
25	Proceeds from CWRPDA Loan	0	3,359,763	0	0	0	0	0	0	0	0
26	**Total Other Cash Inflows/(Outflows)**	(1,627,000)	(1,624,083)	(2,344,589)	(172,370)	(3,207,700)	(1,622,984)	(1,850,781)	(1,721,823)	(1,773,478)	(1,891,921)
27	**Increase /(Decrease) in Cash Balance**	(509,551)	(404,698)	(946,436)	1,360,178	(1,465,478)	120,826	(86,107)	70,502	49,572	(80,532)
28	**Beginning of Year Cash Balance**	2,822,814	2,313,263	1,908,565	962,129	2,322,307	856,830	977,656	891,549	962,051	1,011,623
29	**End of Year Cash Balance**	2,313,263	1,908,565	962,129	2,322,307	856,830	977,656	891,549	962,051	1,011,623	931,091
30	**Capital Project Fund Reserve (2)**	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
31	**End of Year Cash Balance Less Capital Project Fund Reserve**	$1,813,263	$1,408,565	$462,129	$1,822,307	$356,830	$477,656	$391,549	$462,051	$511,623	$431,091
32	**Cash Reserve Ratio Before Capital Project Reserve (3)**	209.3%	153.8%	75.0%	175.0%	62.4%	68.9%	60.7%	63.4%	64.4%	57.4%
32	**Cash Reserve Ratio After Capital Project Reserve (4)**	209.3%	113.5%	36.0%	137.3%	26.0%	33.7%	26.7%	30.4%	32.6%	26.6%

(1) Target debt service coverage including development fees: 1.5 Legal requirement of 1.1.
(2) Target ending cash balance for capital project reserve of $500,000 allocated to operations and tap fee sub funds based on relative percent of CIP over a 5-year period allocated to two sub funds.
(3) Target ending cash balance as a percent of O&M expenditures: 25% without reduing fund balance for capital reserve target of $500,000.
(4) Excludes Capital Reserve Cash balance target. Target ending cash balance as a percent of O&M expenditures: 25% after reducing fund balance for capital reserve target of $500,000.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - OPERATIONS SUBFUND

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 12/21/10
RANGE: CF_OPS

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
		Projected										
	Operating Revenues											
1	Water User Charges	$2,187,188	$2,451,144	$2,746,698	$3,049,872	$3,386,192	$3,451,667	$3,552,920	$3,620,938	$3,689,911	$3,722,624	3,049,872
2	Meter Sales	5,000	5,050	5,101	5,152	5,203	5,255	5,308	5,361	5,414	5,468	5,152
3	Misc Chgs - taxable	5,500	5,555	5,611	5,667	5,723	5,781	5,838	5,897	5,956	6,015	5,667
4	Charges for Service	8,500	8,585	8,671	8,758	8,845	8,934	9,023	9,113	9,204	9,296	8,758
5	Penalties	0	0	0	0	0	0	0	0	0	0	0
6	Interest Income - Invest	61,500	41,221	28,862	14,177	15,085	12,015	14,448	12,755	14,011	15,057	14,177
7	Filtration Bay Lease Pmt	52,200	50,868	49,535	48,203	46,871	45,539	0	0	0	0	48,203
8	**Total Operating Revenues**	2,319,888	2,562,423	2,844,477	3,131,827	3,467,919	3,529,190	3,587,537	3,654,063	3,724,496	3,758,461	3,131,827
	Operating Expenditures											
9	Operating	1,105,341	1,241,262	1,283,504	1,327,214	1,372,444	1,419,247	1,467,679	1,517,798	1,569,664	1,623,340	1,327,214
10	**Total Operating Expenditures**	1,105,341	1,241,262	1,283,504	1,327,214	1,372,444	1,419,247	1,467,679	1,517,798	1,569,664	1,623,340	1,327,214
11	**Net Operating Income Avail. for Debt Service**	1,214,547	1,321,161	1,560,973	1,804,613	2,095,476	2,109,944	2,119,858	2,136,265	2,154,832	2,135,121	1,804,613
	Debt Service											
12	Debt Service Payments - Existing	372,478	372,770	372,926	372,770	374,133	372,965	373,257	373,413	373,179	372,232	372,770
13	Debt Service Payments - New	0	17,108	34,216	34,216	34,216	34,216	34,216	34,216	34,216	34,216	34,216
14	**Total Debt Service**	$372,478	$389,878	$407,141	$406,986	$408,349	$407,180	$407,472	$407,628	$407,395	$406,448	$406,986
15	***DSC Ratio (1)***	***3.26***	***3.39***	***3.83***	***4.43***	***5.13***	***5.18***	***5.20***	***5.24***	***5.29***	***5.25***	
16	**Income Available After Debt Service**	$842,069	$931,283	$1,153,831	$1,397,627	$1,687,127	$1,702,763	$1,712,385	$1,728,637	$1,747,437	$1,728,673	$1,397,627
	Other Cash Inflows/(Outflows)											
17	Bond / Loan Proceeds - Non Growth	0	460,000	0	0	0	0	0	0	0	0	0
18	Grants	0	0	0	0	0	0	0	0	0	0	0
19	2011 CWRPDA Project Fund	0	0	0	0	0	0	0	0	0	0	0
20	Capital Improvements - Non-Growth	(1,236,000)	(2,982,947)	(1,273,080)	(1,352,250)	(1,350,611)	(1,391,129)	(1,597,045)	(1,475,849)	(1,520,124)	(1,614,657)	(1,352,250)
21	Debt Service Reserve Deposit (New Debt)	0	(34,216)	0	0	0	0	0	0	0	0	0
22	Transfer to General Fund	0	0	0	0	0	0	0	0	0	0	0
23	Loan (To) Tap Fee Subfund	(620,000)	0	(615,000)	0	(490,000)	(190,000)	(200,000)	(190,000)	(175,000)	(195,000)	0
24	Proceeds from CWRPDA Loan	0	1,007,929	0	0	0	0	0	0	0	0	0
25	**Total Other Cash Inflows/(Outflows)**	(1,856,000)	(1,549,234)	(1,888,080)	(1,352,250)	(1,840,611)	(1,581,129)	(1,797,045)	(1,665,849)	(1,695,124)	(1,809,657)	(1,352,250)
26	**Increase /(Decrease) in Cash Balance**	(1,013,931)	(617,950)	(734,249)	45,378	(153,484)	121,634	(84,660)	62,788	52,313	(80,984)	45,378
27	**Beginning of Year Cash Balance**	3,075,001	2,061,070	1,443,120	708,871	754,249	600,765	722,400	637,740	700,529	752,841	708,871
28	**End of Year Cash Balance**	2,061,070	1,443,120	708,871	754,249	600,765	722,400	637,740	700,529	752,841	671,858	754,249
29	**Capital Project Fund Reserve (2)**	251,395	251,395	251,395	251,395	251,395	251,395	251,395	251,395	251,395	251,395	251,395
30	**End of Year Cash Balance Less Capital Project Fund Reserve**	$1,809,675	$1,191,725	$457,476	$502,854	$349,370	$471,005	$386,345	$449,134	$501,446	$420,463	502,854
31	**Cash Reserve Ratio Before Capital Project Reserve (3)**	186.5%	116.3%	55.2%	56.8%	43.8%	50.9%	43.5%	46.2%	48.0%	41.4%	
32	**Cash Reserve Ratio After Capital Project Reserve (4)**	163.7%	96.0%	35.6%	37.9%	25.5%	33.2%	26.3%	29.6%	31.9%	25.9%	

(1) Target debt service coverage including development fees: 1.5 Legal requirement of 1.1.
(2) Target ending cash balance for capital project reserve of $500,000 allocated to operations and tap fee sub funds based on relative percent of CIP over a 5-year period allocated to two sub funds.
(3) Target ending cash balance as a percent of O&M expenditures: 25% without reduing fund balance for capital reserve target of $500,000.
(4) Excludes Capital Reserve Cash balance target. Target ending cash balance as a percent of O&M expenditures: 25% after reducing fund balance for capital reserve target of $500,000.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - TAP FEE SUBFUND

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 08/15/16
RANGE: CF_TF

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
		Projected										
	Operating Revenues											
1	Tap Fees	$534,221	$585,588	$581,138	$592,341	$603,634	$615,013	$626,474	$638,011	$649,620	$661,294	592,341
2	Tap Fee - Lump Sum Payment	0	0	0	0	0	0	0	0	0	0	0
3	Interest	0	5,044	9,309	5,065	31,361	5,121	5,105	5,076	5,230	0	5,065
	Total Operating Revenues	534,221	590,632	590,447	597,406	634,995	620,134	631,579	643,087	654,850	661,294	597,406
4	**Net Operating Income Avail. for Debt Service**	534,221	590,632	590,447	597,406	634,995	620,134	631,579	643,087	654,850	661,294	597,406
5	**Debt Service**											
6	Debt Service Payments - Existing	258,841	259,044	259,152	259,044	259,991	259,179	259,382	259,490	259,328	258,670	259,044
7	Debt Service Payments - New	0	43,487	86,974	203,441	319,908	319,908	319,908	319,908	319,908	319,908	203,441
8	**Total Debt Service**	$258,841	$302,531	$346,126	$462,485	$579,899	$579,087	$579,290	$579,399	$579,236	$578,578	$462,485
9	***DSC Ratio***	***2.06***	***1.95***	***1.71***	***1.29***	***1.10***	***1.07***	***1.09***	***1.11***	***1.13***	***1.14***	
10	**Income Available After Debt Service**	$275,380	$288,102	$244,322	$134,921	$55,096	$41,047	$52,288	$63,688	$75,613	$82,716	$134,921
11	**Other Cash Inflows/(Outflows):**											
12	Additional Cash Inflow / (Outflow)	0	0	0	0	0	0	0	0	0	0	0
13	Bond / Loan Proceeds -Growth	0	1,170,000	0	3,000,000	0	0	0	0	0	0	3,000,000
14	Capital Expenditures - Growth	(391,000)	(3,509,710)	(1,071,509)	(1,587,186)	(1,857,090)	(231,855)	(253,736)	(245,975)	(253,354)	(277,264)	(1,587,186)
15	Repayment of Loan from Devel. Fee Subfund	0	0	0	0	0	0	0	0	0	0	0
16	Debt Service Reserve Deposit	0	(86,974)	0	(232,935)	0	0	0	0	0	0	(232,935)
17	Loan From / Repayment (To) Operations Subfund	620,000	0	615,000	0	490,000	190,000	200,000	190,000	175,000	195,000	0
18	Proceeds from CWRPDA Loan	0	2,351,834	0	0	0	0	0	0	0	0	0
19	**Total Other Cash Inflows/(Outflows)**	229,000	(74,849)	(456,509)	1,179,879	(1,367,090)	(41,855)	(53,736)	(55,975)	(78,354)	(82,264)	1,179,879
20	**Increase /(Decrease) in Cash Balance**	504,380	213,253	(212,187)	1,314,800	(1,311,994)	(808)	(1,448)	7,714	(2,741)	451	1,314,800
21	**Beginning of Year Cash Balance**	(252,187)	252,193	465,445	253,258	1,568,059	256,065	255,256	253,809	261,522	258,782	253,258
22	**End of Year Cash Balance**	252,193	465,445	253,258	1,568,059	256,065	255,256	253,809	261,522	258,782	259,233	1,568,059
23	**Capital Project Fund Reserve (2)**	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605	248,605
24	**End of Year Cash Balance Less Capital Project Fund Reserve**	$3,588	$216,840	$4,653	$1,319,454	$7,460	$6,651	$5,204	$12,917	$10,177	$10,628	$1,319,454

(2) Target ending cash balance of $500,000 for total water fund. Target reflects tap fee sub fund portion of total water fund capital.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED REVENUE - WATER CHARGE

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 08/12/16
RANGE: PROJREV

Line No.	DESCRIPTION	Percent Increase	Month Effective (1)	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	Water Charges Under Existing Rates			$2,187,188	$2,208,238	$2,229,282	$2,250,313	$2,271,330	$2,292,325	$2,313,303	$2,334,247	$2,355,159	$2,376,039	2,250,313
2	2016	0%	1	0	0	0	0	0	0	0	0	0	0	0
3	2017	11%	1		242,906	245,221	247,534	249,846	252,156	254,463	256,767	259,067	261,364	247,534
4	2018	11%	1			272,195	274,763	277,329	279,893	282,454	285,012	287,565	290,114	274,763
5	2019	10%	1				277,261	279,851	282,437	285,022	287,603	290,179	292,752	277,261
6	2020	10%	1					307,836	310,681	313,524	316,363	319,197	322,027	0
7	2021	1%	1						34,175	34,488	34,800	35,112	35,423	0
8	2022	2%	1							69,665	70,296	70,926	71,554	0
9	2023	1%	1								35,851	36,172	36,493	0
10	2024	1%	1									36,534	36,858	0
11	2025	0%	1										0	0
12	Subtotal Additional Revenue			0	242,906	517,416	799,559	1,114,862	1,159,342	1,239,617	1,286,691	1,334,752	1,346,585	799,559
13	**Subtotal Water Revenue**			2,187,188	2,451,144	2,746,698	3,049,872	3,386,192	3,451,667	3,552,920	3,620,938	3,689,911	3,722,624	3,049,872
14	**Revenue Increase Assuming 12 months of Effectiveness**			0	242,906	272,195	277,261	307,836	34,175	69,665	35,851	36,534	0	277,261
15	**Revenue Assuming 12 months of Effectiveness**			$2,187,188	$2,451,144	$2,746,698	$3,049,872	$3,386,192	$3,451,667	$3,552,920	$3,620,938	$3,689,911	$3,722,624	$3,049,872

(1) Effective 1st day of month: 1=Jan 12=Dec

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED TAP FEES

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 08/12/16
RANGE: CF_PROJTFREV

Line No.	DESCRIPTION	*Projected* 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	Water System Fee per Fixture Unit	$28.10	$30.71	$31.32	$31.95	$32.59	$33.24	$33.91	$34.58	$35.28	$35.98	
2	Annual Increase - %	-	2.85	0.63	0.64	0.65	0.66	0.68	0.69	0.71	0.72	
3	Water System Fee per Fixture Unit	$28.10	$33.56	$31.95	$32.59	$33.24	$33.91	$34.58	$35.28	$35.98	$36.70	
4	Units per EQR	140	140	140	140	140	140	140	140	140	140	
5	Water System Fee per EQR	$3,934.00	$4,698.74	$4,473.10	$4,562.56	$4,653.81	$4,746.89	$4,841.82	$4,938.66	$5,037.43	$5,138.18	
6	EQRs Added - City Customers	55	55	55	55	55	55	55	55	55	55	
7	Water System Fee Revenue	$217,182	$259,322	$246,745	$251,501	$256,296	$261,127	$265,993	$270,892	$275,821	$280,778	
8	Water Resource Fee per Fixture Unit	$41.02	$41.62	$42.45	$43.30	$44.17	$45.05	$45.95	$46.87	$47.81	$48.76	
9	Annual Increase - %	-	0.61	0.85	0.87	0.88	0.90	0.92	0.94	0.96	0.98	
10	Water System Fee per Fixture Unit	$41.02	$42.23	$43.30	$44.17	$45.05	$45.95	$46.87	$47.81	$48.76	$49.74	
11	Units per EQR	140	140	140	140	140	140	140	140	140	140	
12	Water Resource Fee per EQR	$5,742.80	$5,911.71	$6,062.04	$6,183.28	$6,306.95	$6,433.09	$6,561.75	$6,692.98	$6,826.84	$6,963.38	
13	EQRs Added - City Customers	55	55	55	55	55	55	55	55	55	55	
14	Water System Fee Revenue	$317,039	$326,266	$334,394	$340,840	$347,338	$353,886	$360,480	$367,119	$373,799	$380,516	
15	**Total Tap Fee Revenue**	$534,221	$585,588	$581,138	$592,341	$603,634	$615,013	$626,474	$638,011	$649,620	$661,294	$592,341

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_W
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	2017	2018	2019	2020	*Projected* 2021	2022	2023	2024	2025	Test Year
1	**Water Rights Management**											
2	**Personnel**											
3	Salaries	$41,757	$45,933	$47,770	$49,681	$51,668	$53,735	$55,884	$58,120	$60,444	$62,862	49,681
4	FICA Taxes	2,602	2,862	2,977	3,096	3,220	3,348	3,482	3,622	3,766	3,917	3,096
5	Medicare Taxes	609	670	697	725	754	784	815	848	882	917	725
6	Employee Retirement	2,518	2,770	2,881	2,996	3,116	3,240	3,370	3,505	3,645	3,791	2,996
7	Health Insurance	6,347	6,601	6,865	7,140	7,425	7,722	8,031	8,352	8,686	9,034	7,140
8	Life/LTD/AD&D/Pretax	376	391	407	423	440	457	476	495	515	535	423
9	Workers Compensation	123	135	141	146	152	158	165	171	178	185	146
10	Unemployment Insurance	126	139	144	150	156	162	169	175	182	190	150
11	Employee Wellness Program	204	212	221	229	239	248	258	268	279	290	229
12	Cell Phone Allowance	6	6	6	7	7	7	7	7	8	8	8
13	**Operating**											
14	Stream Guaging	6,435	6,628	6,827	7,032	7,243	7,460	7,684	7,914	8,152	8,396	7,032
15	Water Rights Accounting	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	6,556
16	Legal Services	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	81,955
19	**Personnel**											
20	Salaries	104,992	115,491	120,111	124,915	129,912	135,108	140,513	146,133	151,979	158,058	124,915
21	Overtime	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,125
22	Premium Time	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,125
23	Standby Time	7,720	8,029	8,350	8,684	9,031	9,393	9,768	10,159	10,565	10,988	8,684
24	FICA Taxes	7,180	7,898	8,214	8,542	8,884	9,240	9,609	9,993	10,393	10,809	8,542
25	Medicare Taxes	1,679	1,847	1,921	1,998	2,078	2,161	2,247	2,337	2,430	2,528	1,998
26	Employee Retirement	6,948	7,643	7,949	8,266	8,597	8,941	9,299	9,671	10,057	10,460	8,266
27	Health Insurance	24,512	25,492	26,512	27,573	28,676	29,823	31,015	32,256	33,546	34,888	27,573
28	Life/LTD/AD&D/Pretax	945	983	1,022	1,063	1,106	1,150	1,196	1,244	1,293	1,345	1,063
29	Workers Compensation	1,919	2,111	2,195	2,283	2,374	2,469	2,568	2,671	2,778	2,889	2,283
30	Unemployment Insurance	347	382	397	413	429	447	464	483	502	522	413
31	Employee Wellness Program	788	820	852	886	922	959	997	1,037	1,078	1,122	886
32	Cell Phone Allowance	302	311	320	330	340	350	361	371	383	394	394
33	**Operating**											
34	Leases and Rentals		-	-	-	-	-	-	-	-	-	-
35	Other Outside Services		-	-	-	-	-	-	-	-	-	-
36	On-Line Computer Service		-	-	-	-	-	-	-	-	-	-
37	Communications		-	-	-	-	-	-	-	-	-	-
38	Utilities	17,500	18,025	18,566	19,123	19,696	20,287	20,896	21,523	22,168	22,834	19,123
39	Training, Travel, Meetings		-	-	-	-	-	-	-	-	-	-
40	Operating Supplies	900	927	955	983	1,013	1,043	1,075	1,107	1,140	1,174	983
41	Uniforms		-	-	-	-	-	-	-	-	-	-
42	Protective Clothing	350	361	371	382	394	406	418	430	443	457	382
43	Small Tools	500	515	530	546	563	580	597	615	633	652	546
44	Central Services Charges		-	-	-	-	-	-	-	-	-	-
45	Fleet Services Charges	21,884	22,541	23,217	23,913	24,631	25,370	26,131	26,915	27,722	28,554	23,913
46	Computer Services Charges		-	-	-	-	-	-	-	-	-	-
47	Stagecoach Water Storage	19,320	19,900	20,497	21,111	21,745	22,397	23,069	23,761	24,474	25,208	21,111
48	R&M Buildings & Grounds	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	10,927
49	R&M Utility Lines	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667	38,245
50	R&M Treatment Facilities	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	32,782
51	R&M Machinery & Equip	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	6,556
52	**Total Distribution**	300,786	318,784	330,075	341,774	353,896	366,456	379,471	392,958	406,933	421,414	341,838
53	**Water Meter Reading/Billing**											

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_W
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	2017	2018	2019	2020	*Projected* 2021	2022	2023	2024	2025	Test Year
54	**Personnel**											
55	Salaries	37,748	41,523	43,184	44,911	46,708	48,576	50,519	52,540	54,641	56,827	44,911
56	FICA Taxes	2,374	2,611	2,716	2,824	2,937	3,055	3,177	3,304	3,436	3,574	2,824
57	Medicare Taxes	555	611	635	660	687	714	743	772	803	836	660
58	Employee Retirement	2,297	2,527	2,628	2,733	2,842	2,956	3,074	3,197	3,325	3,458	2,733
59	Health Insurance	12,207	12,695	13,203	13,731	14,280	14,852	15,446	16,064	16,706	17,374	13,731
60	Life/LTD/AD&D/Pretax	340	354	368	382	398	414	430	447	465	484	382
61	Workers Compensation	388	427	444	462	480	499	519	540	562	584	462
62	Unemployment Insurance	115	127	132	137	142	148	154	160	166	173	137
63	Employee Wellness Program	392	408	424	441	459	477	496	516	536	558	441
64	Cell Phone Allowance	150	155	159	164	169	174	179	184	190	196	196
65	**Operating**											
66	Contract Services	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743	9,835
67	Leases and Rentals		-	-	-	-	-	-	-	-	-	-
68	Other Outside Services		-	-	-	-	-	-	-	-	-	-
69	Hardware/Software Services		-	-	-	-	-	-	-	-	-	-
70	On-Line Computer Service		-	-	-	-	-	-	-	-	-	-
71	Communications		-	-	-	-	-	-	-	-	-	-
72	Postage	1,800	1,854	1,910	1,967	2,026	2,087	2,149	2,214	2,280	2,349	1,967
73	Utilities	600	618	637	656	675	696	716	738	760	783	656
74	Training, Travel, Meetings		-	-	-	-	-	-	-	-	-	-
75	Operatiing Supplies	750	773	796	820	844	869	896	922	950	979	820
76	Uniforms		-	-	-	-	-	-	-	-	-	-
77	Protective Clothing	150	155	159	164	169	174	179	184	190	196	164
78	Small Tools		-	-	-	-	-	-	-	-	-	-
79	Central Services Charges		-	-	-	-	-	-	-	-	-	-
80	Fleet Services Charges	2,525	2,601	2,679	2,759	2,842	2,927	3,015	3,105	3,199	3,295	2,759
81	Computer Services Charges		-	-	-	-	-	-	-	-	-	-
82	GIS Services Charges		-	-	-	-	-	-	-	-	-	-
83	R&M Buildings & Grounds		-	-	-	-	-	-	-	-	-	-
84	R&M Utility Lines	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	16,391
85	R&M Office & Comm. Equip		-	-	-	-	-	-	-	-	-	-
86	R&M Machinery & Equip	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	1,639
87	**Total Water Meter Reading/Billing/RPRS**	87,891	93,701	97,124	100,675	104,358	108,179	112,141	116,251	120,514	124,935	100,707
88	**Water Administration**											
89	**Personnel**											
90	Salaries	87,551	96,306	100,158	104,165	108,331	112,665	117,171	121,858	126,732	131,802	104,165
91	FICA Taxes	5,485	6,034	6,275	6,526	6,787	7,058	7,341	7,634	7,940	8,257	6,526
92	Medicare Taxes	1,283	1,411	1,468	1,526	1,588	1,651	1,717	1,786	1,857	1,931	1,526
93	Employee Retirement	5,308	5,839	6,072	6,315	6,568	6,831	7,104	7,388	7,683	7,991	6,315
94	Health Insurance	14,057	14,619	15,204	15,812	16,445	17,102	17,787	18,498	19,238	20,007	15,812
95	Life/LTD/AD&D/Pretax	788	820	852	886	922	959	997	1,037	1,078	1,122	886
96	Workers Compensation	822	904	940	978	1,017	1,058	1,100	1,144	1,190	1,237	978
97	Unemployment Insurance	265	292	303	315	328	341	355	369	384	399	315
98	Employee Wellness Program	452	470	489	508	529	550	572	595	619	643	508
99	Cell Phone Allowance	473	487	502	517	532	548	565	582	599	617	617
100	**Operating**											
101	Drug & Alcohol Testing	120	124	127	131	135	139	143	148	152	157	131
102	Employee License Testing	630	649	668	688	709	730	752	775	798	822	688
103	Consumer Confidence Report	450	464	477	492	506	522	537	553	570	587	492
104	As-Built Mapping Scanning/Stor	100	103	106	109	113	116	119	123	127	130	109

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_W
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	2017	2018	2019	2020	*Projected* 2021	2022	2023	2024	2025	Test Year
105	Consultant	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	16,391
106	Advertising / Notifications	500	515	530	546	563	580	597	615	633	652	546
107	Legal Services	11,000	11,330	11,670	12,020	12,381	12,752	13,135	13,529	13,934	14,353	12,020
108	Water Quality Testing	5,500	5,665	5,835	6,010	6,190	6,376	6,567	6,764	6,967	7,176	6,010
109	Utilities	800	824	849	874	900	927	955	984	1,013	1,044	874
110	Hardware/Software Services		-	-	-	-	-	-	-	-	-	-
111	Communications	4,565	4,702	4,843	4,988	5,138	5,292	5,451	5,614	5,783	5,956	4,988
112	Training, Travel, Meetings	6,650	6,850	7,055	7,267	7,485	7,709	7,940	8,179	8,424	8,677	7,267
113	Memberships, Subscription	2,400	2,472	2,546	2,623	2,701	2,782	2,866	2,952	3,040	3,131	2,623
114	Operating Supplies	500	515	530	546	563	580	597	615	633	652	546
115	Miscellaneous Fees	750	773	796	820	844	869	896	922	950	979	820
116	Allocated Overhead	135,312	139,371	143,553	147,859	152,295	156,864	161,570	166,417	171,409	176,551	147,859
117	Uniforms	1,800	1,854	1,910	1,967	2,026	2,087	2,149	2,214	2,280	2,349	1,967
118	Central Services Charges		-	-	-	-	-	-	-	-	-	-
119	Fleet Services Charges	3,647	3,756	3,869	3,985	4,105	4,228	4,355	4,485	4,620	4,759	3,985
120	Small Equipment	500	515	530	546	563	580	597	615	633	652	652
121	Mt Werner Contract Payment	265,000	272,950	281,139	289,573	298,260	307,208	316,424	325,917	335,694	345,765	289,573
122	R&M Office & Comm Equip		-	-	-	-	-	-	-	-	-	-
123	**Total Water Administration**	571,708	596,062	615,211	634,985	655,405	676,492	698,269	720,759	743,984	767,971	634,985
124	**General Services**											
125	System Services	534	550	567	584	601	619	638	657	676	697	584
126	Cleaning Services	819	844	869	895	922	949	978	1,007	1,037	1,069	895
127	**Total General Services**	1,353	1,394	1,435	1,478	1,523	1,568	1,616	1,664	1,714	1,765	1,478
128	**Water Conservation**											
129	Rebate Water Conservation	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	1,639
130	**Total Water Conservation**	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	1,639
131	**Water Capital**											
132	**Capital Outlay**	0	0	0	0	0	0	0	0	0	0	0
133	**Total Water Capital**	0	0	0	0	0	0	0	0	0	0	0
134	**Subtotal - O&M By Division**	1,105,341	1,161,262	1,200,304	1,240,686	1,282,455	1,325,658	1,370,346	1,416,572	1,464,390	1,513,855	1,240,782
135	Additional Incremental O&M Costs											
136	Engineering for dams	0	7,500	7,800	8,112	8,436	8,774	9,125	9,490	9,869	10,264	8,112
137	Wellfield water treatment plant compliance	0	7,500	7,800	8,112	8,436	8,774	9,125	9,490	9,869	10,264	8,112
138	Cross connection control rule	0	5,000	5,200	5,408	5,624	5,849	6,083	6,327	6,580	6,843	5,408
139	Elk River raw water storage	0	50,000	52,000	54,080	56,243	58,493	60,833	63,266	65,797	68,428	54,080
140	Consumer account monitoring software	0	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	10,816
141	Total Additional Incremental O&M	$0	$80,000	$83,200	$86,528	$89,989	$93,589	$97,332	$101,226	$105,275	$109,486	
142	**Total O&M**	$1,105,341	$1,241,262	$1,283,504	$1,327,214	$1,372,444	$1,419,247	$1,467,679	$1,517,798	$1,569,664	$1,623,340	$1,327,214

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
2016 $

FILE: Stmboat_W
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_CY

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	Total
	Total CIP													
1	Water Main Replacement	4	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	0%	10,000,000
2	Water Main Connections	4	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	50%	4,000,000
3	West Steamboat Water Tank	1	0	4,153,550	0	0	0	0	0	0	0	0	70%	4,153,550
4	Major Dam Maintenance	2	0	0	0	0	0	0	100,000	0	0	0	0%	100,000
5	Booster Station	4		0	60,000	340,000	0	0	0	0	0	0	100%	400,000
6	Fish Creek Filtration Plant Capacity Expansion	3	90,000	0	0	900,000	700,000	0	0	0	0	0	100%	1,690,000
7	Wellfield Treatment Plant Capacity Expansion	3	6,000	300,000	0	0	0	0	0	0	0	0	100%	306,000
8	Wellfield Treatment Plant Compliance Upgrade	3	36,000	450,000	0	0	0	0	0	0	0	0	0%	486,000
9	Wellfield Capacity Expansion	2	95,000	0	750,000	0	750,000	0	0	0	0	0	100%	1,595,000
10	Rate Study Update	5	0	0	0	50,000	0	0	50,000	0	0	50,000	25%	150,000
	Total CIP		**$1,627,000**	**$6,303,550**	**$2,210,000**	**$2,690,000**	**$2,850,000**	**$1,400,000**	**$1,550,000**	**$1,400,000**	**$1,400,000**	**$1,450,000**		**$22,880,550**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
(Inflated $)

FILE: Stmboat_W
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_INFL

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	Total
	Growth Related CIP													
1	Water Main Replacement	4	0	0	0	0	0	0	0	0	0	0	0%	0
2	Water Main Connections	4	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	50%	2,292,776
3	West Steamboat Water Tank	1	0	2,994,710	0	0	0	0	0	0	0	0	70%	2,994,710
4	Major Dam Maintenance	2	0	0	0	0	0	0	0	0	0	0	0%	0
5	Booster Station	4	0	0	63,654	371,527	0	0	0	0	0	0	100%	435,181
6	Fish Creek Filtration Plant Capacity Expansion	3	90,000	0	0	983,454	787,856	0	0	0	0	0	100%	1,861,310
7	Wellfield Treatment Plant Capacity Expansion	3	6,000	309,000	0	0	0	0	0	0	0	0	100%	315,000
8	Wellfield Treatment Plant Compliance Upgrade	3	0	0	0	0	0	0	0	0	0	0	0%	0
9	Wellfield Capacity Expansion	2	95,000	0	795,675	0	844,132	0	0	0	0	0	100%	1,734,807
10	Rate Study Update	5	0	0	0	13,659	0	0	14,926	0	0	16,310	25%	44,894
	Total Growth Related CIP		**$391,000**	**$3,509,710**	**$1,071,509**	**$1,587,186**	**$1,857,090**	**$231,855**	**$253,736**	**$245,975**	**$253,354**	**$277,264**		**$9,678,678**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
(Inflated $)

FILE: Stmboat_W
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_INFL2

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Non-Growth Percent Allocation	Total
	Non-Growth Related CIP													
1	Water Main Replacement	4	1,000,000	1,030,000	1,060,900	1,092,727	1,125,509	1,159,274	1,194,052	1,229,874	1,266,770	1,304,773	100%	11,463,879
2	Water Main Connections	4	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	50%	2,292,776
3	West Steamboat Water Tank	1	0	1,283,447	0	0	0	0	0	0	0	0	30%	1,283,447
4	Major Dam Maintenance	2	0	0	0	0	0	0	119,405	0	0	0	100%	119,405
5	Booster Station	4	0	0	0	0	0	0	0	0	0	0	0%	-
6	Fish Creek Filtration Plant Capacity Expansion	3	0	0	0	0	0	0	0	0	0	0	0%	-
7	Wellfield Treatment Plant Capacity Expansion	3	0	0	0	0	0	0	0	0	0	0	0%	-
8	Wellfield Treatment Plant Compliance Upgrade	3	36,000	463,500	0	0	0	0	0	0	0	0	100%	499,500
9	Wellfield Capacity Expansion	2	0	0	0	0	0	0	0	0	0	0	0%	-
10	Rate Study Update	5	0	0	0	40,977	0	0	44,777	0	0	48,929	75%	134,683
	Total Non-Growth Related CIP		**$1,236,000**	**$2,982,947**	**$1,273,080**	**$1,352,250**	**$1,350,611**	**$1,391,129**	**$1,597,045**	**$1,475,849**	**$1,520,124**	**$1,614,657**		**$15,793,691**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DEBT SERVICE COVERAGE TEST
TOTAL FUND INCLUDING AND EXCLUDING TAP FEES

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_DSC

	Projected									
DESCRIPTION	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Annual Revenues - Including Tap Fees	$2,854,109	$3,153,055	$3,434,925	$3,729,233	$4,102,914	$4,149,324	$4,219,115	$4,297,150	$4,379,346	$4,419,755
Operating Expenditures	(1,105,341)	(1,241,262)	(1,283,504)	(1,327,214)	(1,372,444)	(1,419,247)	(1,467,679)	(1,517,798)	(1,569,664)	(1,623,340)
Revenues Available For Debt Service	$1,748,768	$1,911,793	$2,151,420	$2,402,019	$2,730,470	$2,730,078	$2,751,437	$2,779,352	$2,809,681	$2,796,415
Revenue Bond Debt Service	$631,319	$692,408	$753,267	$869,470	$988,248	$986,268	$986,763	$987,027	$986,631	$985,026
Debt Service Coverage Ratio	2.77	2.76	2.86	2.76	2.76	2.77	2.79	2.82	2.85	2.84
Target	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Above/(Below) Target	1.27	1.26	1.36	1.26	1.26	1.27	1.29	1.32	1.35	1.34
Annual Revenues - Excluding Tap Fees	$2,319,888	$2,567,467	$2,853,786	$3,136,892	$3,499,280	$3,534,311	$3,592,642	$3,659,139	$3,729,726	$3,758,461
Operating Expenditures	(1,105,341)	(1,241,262)	(1,283,504)	(1,327,214)	(1,372,444)	(1,419,247)	(1,467,679)	(1,517,798)	(1,569,664)	(1,623,340)
Revenues Available For Debt Service	$1,214,547	$1,326,205	$1,570,282	$1,809,678	$2,126,837	$2,115,065	$2,124,963	$2,141,341	$2,160,062	$2,135,121
Revenue Bond Debt Service	$631,319	$692,408	$753,267	$869,470	$988,248	$986,268	$986,763	$987,027	$986,631	$985,026
Debt Service Coverage Ratio	1.92	1.92	2.08	2.08	2.15	2.14	2.15	2.17	2.19	2.17
Target	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Above/(Below) Target	0.82	0.82	0.98	0.98	1.05	1.04	1.05	1.07	1.09	1.07
Additional Bonds Test										
Annual Revenues - Including Tap Fees	$2,854,109	$3,153,055	$3,434,925	$3,729,233	$4,102,914	$4,149,324	$4,219,115	$4,297,150	$4,379,346	$4,419,755
Operating Expenditures	(1,105,341)	(1,241,262)	(1,283,504)	(1,327,214)	(1,372,444)	(1,419,247)	(1,467,679)	(1,517,798)	(1,569,664)	(1,623,340)
Revenues Available For Debt Service	$1,748,768	$1,911,793	$2,151,420	$2,402,019	$2,730,470	$2,730,078	$2,751,437	$2,779,352	$2,809,681	$2,796,415
Maximum Annual Debt Service	$374,133	$495,322	$495,322	$728,257	$728,257	$728,257	$728,257	$728,257	$728,257	$728,257
Debt Service Coverage Ratio	4.67	3.86	4.34	3.30	3.75	3.75	3.78	3.82	3.86	3.84
Requirement	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Above/(Below) Target	3.57	2.76	3.24	2.20	2.65	2.65	2.68	2.72	2.76	2.74

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - EXISTING DEBT WATER

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_EXIST

EXISITNG DEBT SERVICE PAYMENTS			Projected									
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
portion related to Water		66%										
Non-Growth Related												
	Non - Growth %											
2011 Series [1]	59%		$372,478	$372,770	$372,926	$372,770	$374,133	$372,965	$373,257	$373,413	$373,179	$372,232
Subtotal Non-Growth Related			372,478	372,770	372,926	372,770	374,133	372,965	373,257	373,413	373,179	372,232
Growth Related												
	Growth %											
2011 Series [1]	41%		$258,841	$259,044	$259,152	$259,044	$259,991	$259,179	$259,382	$259,490	$259,328	$258,670
Subtotal Growth Related			258,841	259,044	259,152	259,044	259,991	259,179	259,382	259,490	259,328	258,670
Total			$631,319	$631,814	$632,078	$631,814	$634,124	$632,144	$632,639	$632,903	$632,507	$630,902

[1] 66% of 2011 CWRPDA loan allocated to the water fund based on projects funded in official statement. Projects split between growth and non-growth components.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - NON-GROWTH

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NG

Revenue Bonds

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Projected					
BOND SIZING											
Amount to be Funded		$0	$460,000	$0	$0	$0	$0	$0	$0	$0	$0
Issuance Costs		0	4,600	0	0	0	0	0	0	0	0
Rounding Amount		0	400	0	0	0	0	0	0	0	0
Total Bond Size		$0	$465,000	$0	$0	$0	$0	$0	$0	$0	$0
DEBT SERVICE PAYMENT (1)											
2016	SERIES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	SERIES		17,108	34,216	34,216	34,216	34,216	34,216	34,216	34,216	34,216
2018	SERIES			0	0	0	0	0	0	0	0
2019	SERIES				0	0	0	0	0	0	0
2020	SERIES					0	0	0	0	0	0
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Proposed Debt Service		$0	$17,108	$34,216	$34,216	$34,216	$34,216	$34,216	$34,216	$34,216	$34,216

(1) 1/2 Principal and Interest payment is due on year issued.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - NON-GROWTH DEBT SERVICE RESERVE

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NGDSR

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Projected					
DEBT SERVICE RESERVE											
2016	SERIES	$0	$0	$0	$0	$0					
2017	SERIES		34,216	0	0	0	0				
2018	SERIES			0	0	0	0	0			
2019	SERIES				0	0	0	0	0		
2020	SERIES					0	0	0	0	0	
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Debt Service Reserve Deposit		$0	$34,216	$0	$0	$0	$0	$0	$0	$0	$0

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING GROWTH

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NEWGROWTH

Revenue Bonds

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Projected					
BOND SIZING											
Amount to be Funded		$0	$1,170,000	$0	$3,000,000	$0	$0	$0	$0	$0	$0
Issuance Costs		0	11,700	0	30,000	0	0	0	0	0	0
Rounding Amount		0	300	0	0	0	0	0	0	0	0
Total Bond Size		$0	$1,182,000	$0	$3,030,000	$0	$0	$0	$0	$0	$0
DEBT SERVICE PAYMENT (1)											
2016	SERIES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	SERIES		43,487	86,974	86,974	86,974	86,974	86,974	86,974	86,974	86,974
2018	SERIES			0	0	0	0	0	0	0	0
2019	SERIES				116,467	232,935	232,935	232,935	232,935	232,935	232,935
2020	SERIES					0	0	0	0	0	0
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Proposed Debt Service		$0	$43,487	$86,974	$203,441	$319,908	$319,908	$319,908	$319,908	$319,908	$319,908

(1) 1/2 Principal and Interest payment is due on year issued.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - GROWTH DEBT SERVICE RESERVE

FILE: Stmboat_W
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NEWGROWTHDSR

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
						Projected					
DEBT SERVICE RESERVE											
2016	SERIES	$0	$0	$0	$0	$0					
2017	SERIES		86,974	0	0	0	0				
2018	SERIES			0	0	0	0	0			
2019	SERIES				232,935	0	0	0	0		
2020	SERIES					0	0	0	0	0	
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Debt Service Reserve Deposit		$0	$86,974	$0	$232,935	$0	$0	$0	$0	$0	$0

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
INTRA-FUND LOANS

FILE: Stmboat_W
SCHEDULE: CASHFLOW
DATE: 08/12/16
RANGE: CF_LOAN

Line No.		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
							Projected				
1	Repayment of loans are assumed to be made at										
2	the end of the year										
3	Interest Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	0.00%
4	**Loans To/(From) Tap Fee Subfund**										
5	**(To)/From Operation Subfund**										
6	Beginning of Year Balance	$0	$620,000	$632,400	$1,260,048	$1,285,249	$1,800,954	$2,026,973	$2,267,512	$2,502,863	$2,727,920
7	Current Year Loans	620,000	0	615,000	0	490,000	190,000	200,000	190,000	175,000	195,000
8	Interest	0	12,400	12,648	25,201	25,705	36,019	40,539	45,350	50,057	0
9	Current Year Payments	0	0	0	0	0	0	0	0	0	0
10	End of Year Balance	$620,000	$632,400	$1,260,048	$1,285,249	$1,800,954	$2,026,973	$2,267,512	$2,502,863	$2,727,920	$2,922,920

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
GENERAL INPUT SCHEDULE

FILE:	**Stmboat_W**
SCHEDULE:	**INPUT**
DATE:	**08/12/16**
RANGE:	**INPUT1**

1. General Model Parameters

		Input Column	
a.	Base Year - (January 1)	**2016**	**2016**
	Test Year	**2019**	**2019**

2. Beginning Fund Balances - January 1, 2016

a.

Water	
Operations Subfund (1)	$3,075,001
Tap Fee Subfund (2)	(252,187)
Total	$2,822,814

(1) Pooled cash and investments less accounts payable. Source "2015 Unaudited Financials."
(2) Unspent tap fees as pf 12/31/15. Source is "Tap fees_summary_2015 Final."

3. Base Year Revenues / Expenses

	Budget	
Charges for Services	**2016**	
Residential Flat Charge	$814,000	Projected in Revenue Tab
Residential Volume Charge	663,000	Projected in Revenue Tab
Commercial Flat Charge	210,000	Projected in Revenue Tab
Commercial Volume Charge	446,000	Projected in Revenue Tab
Meter Sales	5,000	
Misc Chgs - taxable	5,500	
Connections/Tap Fees	340,000	Tap Fees - Projected in Rev2
Charges for Service	8,500	
Total Charges for Services	**$2,492,000**	
Fines & Forfeits		
Penalties	$0	
Total Fines & Forfeits	**$0**	
Other Revenue		
Interest Income	$6,000	
Interest Income - Invest	4,000	
Grant	0	
Additional Cash Inflow / Outflow	0	
Filtration Bay Lease Pmt	52,200	
Total Other Revenue	**$62,200**	

4. Escalation / Inflation Factors

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
a. General Inflation Factors											
Salaries			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Overtime			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Standby Time			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Premium Time			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
FICA Taxes			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Medicare Taxes			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Employee Retirement			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Health Insurance			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Life/LTD/AD&D/Pretax			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Workers Compensation			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Unemployment Insurance			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Employee Wellness Program			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Leases and Rentals			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other Outside Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Drug & Alcohol Testing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
On-Line Computer Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Communications			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Utilities			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Operting Supplies			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Uniforms			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Protective Clothing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Small Tools			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Small Equipment			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Fleet Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Buildings & Grounds			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Treatment Facilities			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Utility Lines			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Office & Comm Equip			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Machinery & Equip			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Training, Travel, Meetings			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Central Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Computer Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
GIS Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Hardware/Software Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Postage			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Legal Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Water Quality Testing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Memberships, Subscription			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Capital Outlay			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Transfers to Other Funds			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Stagecoach Water Storage			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Mt Werner Contract			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Bank Fees			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Surveyor / Engineering			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Stream Guaging			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Water Rights Accounting			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Employee License Testing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Consumer Confidence Report			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
As-Built Mapping Scanning/Stor			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Consultant			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Advertising / Notifications			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Miscellaneous Fees			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
System Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cleaning Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Rebate Water Conservation			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Allocated Overhead			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cell Phone Allowance			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Mt Werner Contract Payment			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Stagecoach Water Storage			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Construction Project Cost Inflator - Annual		0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Construction Project Cost Inflator - Cumulative		0.00%	3.00%	6.09%	9.27%	12.55%	15.93%	19.41%	22.99%	26.68%	30.48%
Miscellaneous Revenue			1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

	Active EQRs - City (1)	5,576	5,632	5,687	5,742	5,797	5,852	5,907	5,962	6,017	6,072	6,126
	Percent Change From Prior Year	0.00%	0.99%	0.98%	0.97%	0.96%	0.95%	0.94%	0.93%	0.92%	0.91%	0.90%
	EQRs added each year		55	55	55	55	55	55	55	55	55	55
	Active EQRs - Steamboat II (1)	408	408	408	408	408	408	408	408	408	408	408
	Percent Change From Prior Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	EQRs added each year		-	-	-	-	-	-	-	-	-	-
	Total EQRs	5,985	6,040	6,095	6,150	6,205	6,261	6,316	6,370	6,425	6,480	6,535
	Percent Change From Prior Year		0.92%	0.91%	0.91%	0.90%	0.89%	0.88%	0.87%	0.86%	0.85%	0.84%
	Total EQRs added each year		55	55	55	55	55	55	55	55	55	55
c.	Interest Earnings on Cash Balance		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

(1) Master Plan is source for 2009 EQR values adjusted for tap fee sales through 2012. "10-Year History of Tap Fees and EQRs" is source for 2013 through 2015. EQRs estimated as of 12/31/1

5. Bond / Loan Parameters

	Estimated	Projected								
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
External Debt										
Length of Term / Repayment Period (years)	20	20	20	20	20	20	20	20	20	20
Annual Interest Rate	4.00%	4.00%	4.50%	4.50%	4.50%	5.00%	5.00%	5.00%	5.00%	5.00%
Issuance Costs	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Fiscal Year Month of Issue (1=January)	7	7	7	7	7	7	7	7	7	7

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: PROJECTED WATER SERVICE REVENUE UNDER EXISTING RATES

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: ROJ_REV_EXIST

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	$1,446,362	$1,460,600	$1,474,833	$1,489,054	$1,503,268	$1,517,462	$1,531,643	$1,545,800	$1,559,933	$1,574,041	$1,489,054
2	Commercial	579,783	585,511	591,238	596,959	602,676	608,387	614,092	619,791	625,480	631,157	596,959
3	Combined	90,931	91,826	92,720	93,615	94,508	95,402	96,294	97,183	98,071	98,961	93,615
4	Senior	19,074	19,263	19,453	19,647	19,840	20,036	20,236	20,435	20,637	20,842	19,647
5	**Total Inside City**	**2,136,150**	**2,157,200**	**2,178,244**	**2,199,275**	**2,220,292**	**2,241,287**	**2,262,265**	**2,283,209**	**2,304,121**	**2,325,001**	**2,199,275**
	Steamboat II											
6	Residential	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038
10	**Total System**	**$2,187,188**	**$2,208,238**	**$2,229,282**	**$2,250,313**	**$2,271,330**	**$2,292,325**	**$2,313,303**	**$2,334,247**	**$2,355,159**	**$2,376,039**	**$2,250,313**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: SERVICE CHARGE REVENUE

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_REV_MSC

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	$814,620	$822,604	$830,583	$838,557	$846,523	$854,480	$862,427	$870,361	$878,281	$886,186	$838,557
2	Commercial	126,162	127,399	128,634	129,869	131,103	132,335	133,566	134,795	136,022	137,246	129,869
3	Combined	48,169	48,641	49,113	49,585	50,056	50,526	50,996	51,465	51,934	52,401	49,585
4	Senior	12,907	13,035	13,164	13,294	13,426	13,559	13,693	13,829	13,966	14,104	13,294
5	**Total Inside City**	**1,001,859**	**1,011,679**	**1,021,495**	**1,031,305**	**1,041,108**	**1,050,901**	**1,060,682**	**1,070,450**	**1,080,202**	**1,089,937**	**1,031,305**
	Steamboat II											
6	Residential	0	0	0	0	0	0	0	0	0	0	0
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	0	0	0	0	0	0	0	0	0	0	0
10	**Total System**	**$1,001,859**	**$1,011,679**	**$1,021,495**	**$1,031,305**	**$1,041,108**	**$1,050,901**	**$1,060,682**	**$1,070,450**	**$1,080,202**	**$1,089,937**	**$1,031,305**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: VOLUME CHARGE REVENUE

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_REV_VOL

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
		$	$	$	$	$	$	$	$	$	$	
	Inside City											
1	Residential	$631,742	$637,996	$644,250	$650,498	$656,745	$662,982	$669,216	$675,439	$681,652	$687,855	$650,498
2	Commercial	453,621	458,112	462,603	467,090	471,573	476,051	480,526	484,996	489,458	493,911	467,090
3	Combined	42,762	43,184	43,607	44,030	44,453	44,875	45,298	45,717	46,137	46,560	44,030
4	Senior	6,167	6,228	6,289	6,352	6,414	6,477	6,543	6,606	6,672	6,738	6,352
5	**Total Inside City**	**1,134,291**	**1,145,521**	**1,156,749**	**1,167,970**	**1,179,184**	**1,190,386**	**1,201,582**	**1,212,759**	**1,223,918**	**1,235,064**	**1,167,970**
	Steamboat II											
6	Residential	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038	51,038
10	**Total System**	**$1,185,329**	**$1,196,559**	**$1,207,787**	**$1,219,008**	**$1,230,223**	**$1,241,424**	**$1,252,620**	**$1,263,797**	**$1,274,957**	**$1,286,103**	**$1,219,008**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: PROJECTED WATER VOLUME

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_VOL

Line No.	Customer Class	Projected 2016 kgals	2017 kgals	2018 kgals	2019 kgals	2020 kgals	2021 kgals	2022 kgals	2023 kgals	2024 kgals	2025 kgals	Test Year kgals
	Inside City											
1	Residential	183,940	185,761	187,582	189,401	191,220	193,036	194,851	196,663	198,472	200,278	189,401
2	Commercial	108,782	109,859	110,936	112,012	113,087	114,161	115,234	116,306	117,376	118,444	112,012
3	Combined	13,151	13,281	13,411	13,541	13,671	13,801	13,931	14,060	14,189	14,319	13,541
4	Senior	3,591	3,627	3,662	3,699	3,735	3,772	3,810	3,847	3,885	3,924	3,699
5	**Total Inside City**	**309,464**	**312,528**	**315,591**	**318,653**	**321,713**	**324,770**	**327,826**	**330,876**	**333,922**	**336,965**	**318,653**
	Steamboat II											
6	Residential	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381	44,381
10	**Total System**	**353,845**	**356,909**	**359,972**	**363,034**	**366,094**	**369,151**	**372,207**	**375,257**	**378,303**	**381,346**	**363,034**
			0.87%	*0.86%*	*0.85%*	*0.84%*	*0.84%*	*0.83%*	*0.82%*	*0.81%*	*0.80%*	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: 3/4" EQUIVALENT METERS (BASED ON METER COST)

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_MTR_CST

Line No.	Customer Class	Actual 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	2,827	2,854	2,882	2,910	2,937	2,965	2,993	3,020	3,048	3,075	2,910
2	Commercial	729	736	743	751	758	765	772	779	786	793	751
3	Combined	127	128	130	131	132	134	135	136	138	139	131
4	Senior	50	51	51	52	52	53	53	54	54	55	52
5	**Total Inside City**	**3,733**	**3,769**	**3,806**	**3,844**	**3,879**	**3,917**	**3,953**	**3,989**	**4,026**	**4,062**	**3,844**
	Steamboat II											
6	Residential	60	60	60	60	60	60	60	60	60	60	60
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	60	60	60	60	60	60	60	60	60	60	60
10	**Total System**	**3,793**	**3,829**	**3,866**	**3,904**	**3,939**	**3,977**	**4,013**	**4,049**	**4,086**	**4,122**	**3,904**
11	**Added ERUs**		**36**	**37**	**38**	**35**	**38**	**36**	**36**	**37**	**36**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: 3/4" EQUIVALENT METERS (BASED ON METER CAPACITY)

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_MTREQ

Line No.	Customer Class	Actual 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	2,922	2,951	2,979	3,008	3,037	3,065	3,094	3,122	3,151	3,179	3,008
2	Commercial	881	890	899	907	916	925	933	942	950	959	907
3	Combined	166	167	169	171	173	174	176	178	179	181	171
4	Senior	50	51	51	52	52	53	53	54	54	55	52
5	**Total Inside City**	**4,019**	**4,059**	**4,098**	**4,138**	**4,178**	**4,217**	**4,256**	**4,296**	**4,334**	**4,374**	**4,138**
	Steamboat II											
6	Residential	60	60	60	60	60	60	60	60	60	60	60
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**
10	**Total System**	**4,079**	**4,119**	**4,158**	**4,198**	**4,238**	**4,277**	**4,316**	**4,356**	**4,394**	**4,434**	**4,198**
11	**Added SFEs**		**40**	**39**	**40**	**40**	**39**	**39**	**40**	**38**	**40**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
TIERED VOLUME ALLOWANCE BY CUSTOMER CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**REV**
DATE:	**08/15/16**
RANGE:	**EXISTVOL**

Period	**2015**
Months Effective	12

	Upper Limit of Each Tier (per unit)					Amount of Water in Each Tier (per unit)				
Customer Class	**First**	**Second**	**Third**	**Fourth**	**All Over**	**First**	**Next**	**Next**	**Next**	**All Over**
	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals
Residential	4,000	12,000	20,000	28,000	28,000	4,000	8,000	8,000	8,000	28,000
Commercial	0	0	0	0	0	0	0	0	0	0
Combined	0	0	0	0	0	0	0	0	0	0
Senior	4,000	12,000	20,000	28,000	28,000	4,000	8,000	8,000	8,000	20,000

	2015 Volume Charge per kgals					% of Use in Block				
Customer Class	**First**	**Second**	**Third**	**Fourth**	**All Over**	**First**	**Second**	**Third**	**Fourth**	**All Over**
	$/kgals	**$/kgals**	**$/kgals**	**$/kgals**	**$/kgals**	**%**	**%**	**%**	**%**	**%**
Inside City										
Residential	$2.30	$3.45	$5.28	$6.89	$10.34	56%	27%	8%	4%	5%
Commercial	4.17	4.17	4.17	4.17	4.17	0%	0%	0%	0%	100%
Combined	4.17	4.17	4.17	4.17	4.17	0%	0%	0%	0%	100%
Senior	1.15	1.73	2.64	3.45	5.17	56%	27%	8%	4%	5%
Steamboat II										
Residential	$1.15	$1.15	$1.15	$1.15	$1.15	0%	0%	0%	0%	100%
Commercial	$1.15	$1.15	$1.15	$1.15	$1.15	0%	0%	0%	0%	100%
Combined	$1.15	$1.15	$1.15	$1.15	$1.15	0%	0%	0%	0%	100%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
EXISTING SERVICE CHARGE BY METER SIZE

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/17/16
RANGE: EXIST_MSC

Period	**2016**							
Months Effective	12							
	2016 Monthly Service Charge							
Meter Size	**3/4"**	**1"**	**1 1/2"**	**2"**	**3"**	**4"**	**6"**	**8"**
	$/bill	**$/bill**	**$/bill**	**$/bill**	**$/bill**	**$/bill**	**$/bill**	**$/bill**
Customer Class								
Inside City								
Residential	$21.96	$21.96	$21.96	$21.96	$21.96	$21.96	$21.96	$21.96
Commercial	22.78	22.78	22.78	22.78	22.78	22.78	22.78	22.78
Combined	21.96	21.96	21.96	21.96	21.96	21.96	21.96	21.96
Senior	10.98	10.98	10.98	10.98	10.98	10.98	10.98	10.98
Steamboat II								
Residential	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Steamboat II								

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED UNITS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: Proj_Units

Line No.	Customer Class	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City												
1	Residential	3,061	3,091	3,122	3,152	3,182	3,212	3,243	3,273	3,303	3,333	3,363	3,182
2	Commercial	457	462	466	471	475	480	484	489	493	498	502	475
3	Combined	181	183	185	186	188	190	192	194	195	197	199	188
4	Senior	97	98	99	100	101	102	103	104	105	106	107	101
5	**Total Inside City**	**3,796**	**3,834**	**3,871**	**3,909**	**3,946**	**3,984**	**4,021**	**4,059**	**4,096**	**4,134**	**4,171**	**3,946**
	Steamboat II												
6	Residential	416	416	416	416	416	416	416	416	416	416	416	416
7	Commercial	1	1	1	1	1	1	1	1	1	1	1	1
8	Combined	0	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**417**	**417**	**417**	**417**	**417**	**417**	**417**	**417**	**417**	**417**	**417**	**417**
10	**Total System**	**4,213**	**4,251**	**4,288**	**4,326**	**4,363**	**4,401**	**4,438**	**4,476**	**4,513**	**4,551**	**4,588**	**4,363**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED BILLS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_BILLS

	Actual	Projected										Test
Customer Class	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**Year**
Inside City												
Residential	31,690	32,004	32,318	32,631	32,944	33,257	33,570	33,882	34,194	34,505	34,816	32,944
Commercial	5,220	5,272	5,324	5,376	5,428	5,480	5,532	5,583	5,634	5,685	5,736	5,428
Combined	770	778	786	794	802	810	818	826	834	842	850	802
Senior	596	602	608	614	620	626	632	638	644	650	656	620
Total Inside City	**38,276**	**38,656**	**39,036**	**39,415**	**39,794**	**40,173**	**40,552**	**40,929**	**41,306**	**41,682**	**42,058**	39,794
Steamboat II												
Residential	12	12	12	12	12	12	12	12	12	12	12	12
Commercial	0	0	0	0	0	0	0	0	0	0	0	0
Combined	0	0	0	0	0	0	0	0	0	0	0	0
Total Steamboat II	12	12	12	12	12	12	12	12	12	12	12	12
Total System	**38,288**	**38,668**	**39,048**	**39,427**	**39,806**	**40,185**	**40,564**	**40,941**	**41,318**	**41,694**	**42,070**	39,806
Average Annual Growth		**0.99%**	**0.98%**	**0.97%**	**0.96%**	**0.95%**	**0.94%**	**0.93%**	**0.92%**	**0.91%**	**0.90%**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ACCOUNTS BY METER SIZE
AS OF DECEMBER 2015

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: ACCTS_METER

Customer Class	Total	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
Inside City									
Residential	2,699	2,480	194	10	10	4	1	0	0
Commercial	415	266	69	35	34	8	3	0	0
Combined	60	27	17	0	14	2	0	0	0
Senior	7	7	0	0	0	0	0	0	0
Total Inside City	**3,181**	**2,780**	**280**	**45**	**58**	**14**	**4**	**0**	**0**
Steamboat II									
Residential	1								1
Commercial	0								
Combined	0								
Total Steamboat II	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Total System	**3,182**	**2,780**	**280**	**45**	**58**	**14**	**4**	**0**	**1**
Inside City									
Residential	100.0%	91.9%	7.2%	0.4%	0.4%	0.1%	0.0%	0.0%	0.0%
Commercial	100.0%	64.1%	16.6%	8.4%	8.2%	1.9%	0.7%	0.0%	0.0%
Combined	100.0%	45.0%	28.3%	0.0%	23.3%	3.3%	0.0%	0.0%	0.0%
Senior	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Steamboat II									
Residential	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Commercial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Combined	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED USE PER UNIT

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_USE_UNIT

Customer Class	Historical Average*	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals	kgals
Inside City											
Residential	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
Commercial	19.84	19.84	19.84	19.84	19.84	19.84	19.84	19.84	19.84	19.84	19.84
Combined	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05	6.05
Senior	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09	3.09
Total Inside City											
Residential	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89
Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined	?	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
METER RATIOS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: METER_RATIOS

	B	C	D	E	F	G	H	J
	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
	Displacement	Displacement	Displacement	Compound	Compound	Compound	Turbine Class I	Turbine Class I
Meter Capacity (gpm)	30	50	100	160	350	600	1,350	1,600
Meter Capacity Ratio	1.00	1.67	3.33	5.33	11.67	20.00	45.00	60.00
Meter Cost	394.17	561.49	1,308.09	1,549.40	2,256.76	3,820.27	5,475.49	7847.86
Meter Cost Ratio	1.00	1.42	3.32	3.93	5.73	9.69	13.89	60.00

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL USE PER UNIT

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_USEPERUNIT

Customer Class	2011	2012	2013	2014	2015	4-year Average	Use
	kgals	kgals	kgals	kgals	kgals	kgals	kgals
Inside City							
Residential	5.34	5.62	5.37	5.07	4.95	5.27	5.01
Commercial	22.02	20.77	20.82	19.67	20.00	20.64	19.84
Combined	101.21	5.05	8.35	6.57	5.53	6.45	6.05
Senior	2.94	3.67	6.06	3.08	3.09	3.54	3.09
Steamboat II							
Residential	0.53	8.74	8.84	9.01	8.77	7.19	8.89
Commercial	0.00	0.00	0.00	0.00	0.00	-	-
Combined	?	?	?	?	?	#N/A	?

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL USE PER BILL

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_USEPERBILL

Customer Class	2011	2012	2013	2014	2015	4-year Average	Use
	kgals	kgals	kgals	kgals	kgals	kgals	kgals
Inside City							
Residential	6.15	6.51	6.70	5.87	5.74	6.19	5.80
Commercial	21.80	20.51	22.77	20.54	21.02	21.31	20.78
Combined	4.42	18.15	19.25	18.64	15.61	15.79	17.13
Senior	6	8	8	6.08	6.04	6.77	6.06
Steamboat II							
Residential	2,591.00	3,549.58	3,914.74	4,041.18	3,647.42	3,754.68	3,844.30
Commercial	?	?	?	?	?	#N/A ?	
Combined	?	?	?	?	?	#N/A ?	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL USE BY CUSTOMER CLASS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_USE

Customer Class	2011	2012	2013	2014	2015
	kgals	kgals	kgals	kgals	kgals
Inside City					
Residential	191,356	202,663	198,109	184,810	181,794
Commercial	113,379	107,924	111,664	107,386	109,706
Combined	2,429	13,319	13,727	14,279	12,022
Senior	3,171	3,963	3,784	3,511	3,597
Total Inside City	**310,335**	**327,869**	**327,284**	**309,986**	**307,119**
Steamboat II					
Residential	2,591	42,595	43,062	44,453	43,769
Commercial	0	0	0	0	0
Combined	0	0	0	0	0
Total Steamboat II	**2,591**	**42,595**	**43,062**	**44,453**	**43,769**
Total System	**312,926**	**370,464**	**370,346**	**354,439**	**350,888**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL UNITS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_Units

Customer Class	2011	2012	2013	2014	2015
Inside City					
Residential	2,987	3,004	3,075	3,040	3,061
Commercial	429	433	447	455	457
Combined	2	220	137	181	181
Senior	90	90	52	95	97
Total Inside City	**3,418**	**3,657**	**3,711**	**3,771**	**3,796**
Steamboat II					
Residential	406	406	406	411	416
Commercial	1	1	1	1	1
Combined					
Total Steamboat II	**407**	**407**	**407**	**412**	**417**
Total System	**3,825**	**4,064**	**4,118**	**4,183**	**4,213**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL BILLS BY CUSTOMER CLASS

FILE: Stmboat_W
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_Bills

Customer Class	2011	2012	2013	2014	2015
Inside City					
Residential	31,110	31,136	29,575	31,473	31,690
Commercial	5,202	5,261	4,905	5,229	5,220
Combined	550	734	713	766	770
Senior	493	492	503	577	596
Total Inside City	**37,355**	**37,623**	**35,193**	**38,045**	**38,276**
Steamboat II					
Residential	1	12	11	11	12
Commercial	0	0	0	0	0
Combined	0	0	0	0	0
Total Steamboat II	**1**	**12**	**11**	**11**	**12**

APPENDIX B:

Water Cost of Service

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
TEST YEAR COST OF SERVICE

FILE:	**Stmboat_W**
SCHEDULE:	**COS**
DATE:	**08/12/16**
RANGE:	**COS_TY**

Line No.	Description	2019 Test Year $
	Revenue Requirements	
	Operation & Maintenance Expense	
1	Current Operations	$1,327,214
2	Total Operation & Maintenance Expense	1,327,214
	Debt Service	
3	Existing	372,770
4	Proposed	34,216
	Capital	
5	Non-Growth CIP	1,352,250
6	Total Capital Costs	1,759,235
7	**Total Revenue Requirements**	**3,086,450**
	Operating Subfund Other Inflows / Outflows	
8	Meter Sales	(5,152)
9	Misc Chgs - taxable	(5,667)
10	Charges for Service	(8,758)
11	Penalties	0
12	Interest Income - Invest	(14,177)
13	Filtration Bay Lease Pmt	(48,203)
14	Bond / Loan Proceeds - Non Growth	0
15	Grants	0
16	2011 CWRPDA Project Fund	0
17	Debt Service Reserve Deposit (New Debt)	0
18	Transfer to General Fund	0
19	Loan (To) Tap Fee Subfund	0
20	Total Operating Subfund Other Inflows / Outflows	(81,956)
21	Increase (Decrease) in Operating Reserves	45,378
22	**Total Adjustments**	**(36,578)**
23	**Net Cost of Service**	**$3,049,872**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ADJUSTED COST OF SERVICE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_COMPCOS

Line No.	Customer Class	(1) 2019 Test Year Cost of Service	(2) 2019 Revenue at Existing Rates	(3) Indicated Revenue Increase
	City			
1	Residential	$1,969,374	$1,508,701	30.53%
2	Commercial	840,072	596,959	40.73%
3	Combined	103,749	93,615	10.83%
4	**Total**	**2,913,195**	**2,199,275**	**32.46%**
	Wholesale			
5	Steamboat II [1]	136,738	51,038	167.91%
6	**Total**	**136,738**	**51,038**	**167.91%**
7	**Total System**	**$3,049,933**	**$2,250,313**	**35.53%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF WATER SYSTEM ASSETS

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_PLTALLO

Line No.	Description	(1) Assets (1)	(2) CIP (2)	(3) Total	(4) Base	(5) Extra Capacity Maximum Day	(6) Extra Capacity Maximum Hour	(7) Local Distribution Lines	(8) Customer Meters and Services	(9) Billing	(10) Direct Fire Protection
		$	$	$	$	$	$	$	$	$	$
1	Source of Supply / Water Rights	$2,281,486	$890,675	$3,172,161	$1,332,308	$1,839,853	$0	$0	$0	$0	$0
2	Treatment	5,770,286	1,887,954	7,658,240	3,216,461	4,441,779	0	0	0	0	0
3	Storage	1,523,750	4,278,157	5,801,907	1,508,496	2,088,686	2,204,725	0	0	0	0
	Transmission and Distribution Lines (3)										
4	Constructed Water Lines - Transmission	2,272,651	817,994	3,090,645	803,568	1,112,632	1,174,445	0	0	0	0
5	Constructed Water Lines - Distribution	15,209,282	5,474,265	20,683,547	2,688,861	3,723,038	3,929,874	10,341,773	0	0	0
6	**Total Transmission and Distribution Lines**	**17,481,933**	**6,292,259**	**23,774,192**	**3,492,429**	**4,835,671**	**5,104,319**	**10,341,773**	**0**	**0**	**0**
7	**Subtotal of All Above**	**27,057,455**	**13,349,045**	**40,406,500**	**9,549,693**	**13,205,990**	**7,309,044**	**10,341,773**	**0**	**0**	**0**
	General Plant										
8	Miscellaneous / Admin	1,503,320	54,636	1,557,957	368,208	509,184	281,815	398,749	0	0	0
9	**Total General Plant**	**1,503,320**	**54,636**	**1,557,957**	**368,208**	**509,184**	**281,815**	**398,749**	**0**	**0**	**0**
10	**Total Water System Assets**	**$28,560,776**	**$13,403,681**	**$41,964,457**	**$9,917,902**	**$13,715,174**	**$7,590,859**	**$10,740,522**	**$0**	**$0**	**$0**
11	*Percent of Total*			*100.0%*	*23.6%*	*32.7%*	*18.1%*	*25.6%*	*0.0%*	*0.0%*	*0.0%*
12	**Annual Capital Costs**			**$1,759,235**	**$415,778**	**$574,968**	**$318,224**	**$450,265**	**$0**	**$0**	**$0**
	Allocation of Functions to Service Demand Categories										
13	Source of Supply			100.00%	42.00%	58.00%					
14	Treatment			100.00%	42.00%	58.00%					
15	Storage			100.00%	26.00%	36.00%	38.00%				
	Transmission and Distribution Lines										
16	Constructed Water Lines - Transmission			100.00%	26.00%	36.00%	38.00%				
17	Constructed Water Lines - Distribution			100.00%	13.00%	18.00%	19.00%	50.00%			
18	**Total Transmission and Distribution Lines**										
	General Plant										
19	Miscellaneous / Admin			100.00%	23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%

(1) Existing water system assets as of 12/31/15 by function original cost.
(2) Cumulative CIP by functional designation constructed through the test year.
(2) 87% of the inch-feet of water system lines are distribution, remaining 13% are transmision lines per water system line inventory of linear feet by line diameter size.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
CUMULATIVE CIP BY FUNCTION CONSTRUCTED - INFLATED $'s

FILE: Stmboat_W
SCHEDULE: CIP
DATE: 08/15/16
RANGE: CIP_CUM_SUM

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	**Non-Growth Related**												
2	Storage	1	$ -	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$ 1,283,447	$1,283,447
3	Source of Supply / Water Rights	2	0	0	0	0	0	0	119,405	119,405	119,405	119,405	0
4	Treatment	3	36,000	499,500	499,500	499,500	499,500	499,500	499,500	499,500	499,500	499,500	499,500
5	Transmission & Distribution	4	1,200,000	2,436,000	3,709,080	5,020,352	6,370,963	7,762,092	9,194,955	10,670,803	12,190,927	13,756,655	5,020,352
6	Miscellaneous / Admin	5	0	0	0	40,977	40,977	40,977	85,754	85,754	85,754	134,683	40,977
7	Subtotal Non-Growth Related		1,236,000	4,218,947	5,492,027	6,844,277	8,194,887	9,586,016	11,183,061	12,658,910	14,179,034	15,793,691	6,844,277
8	**Growth Related**												
9	Storage	1	0	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710	2,994,710
10	Source of Supply / Water Rights	2	95,000	95,000	890,675	890,675	1,734,807	1,734,807	1,734,807	1,734,807	1,734,807	1,734,807	890,675
11	Treatment	3	96,000	405,000	405,000	1,388,454	2,176,310	2,176,310	2,176,310	2,176,310	2,176,310	2,176,310	1,388,454
12	Transmission & Distribution	4	200,000	406,000	681,834	1,271,907	1,497,008	1,728,863	1,967,674	2,213,648	2,467,002	2,727,957	1,271,907
13	Miscellaneous / Admin	5	0	0	0	13,659	13,659	13,659	28,585	28,585	28,585	44,894	13,659
14	Subtotal Non-Growth		391,000	3,900,710	4,972,219	6,559,405	8,416,494	8,648,349	8,902,085	9,148,060	9,401,414	9,678,678	6,559,405
15	**Non-Growth and Growth-Related**												
16	Storage	1	0	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157	4,278,157
17	Source of Supply / Water Rights	2	95,000	95,000	890,675	890,675	1,734,807	1,734,807	1,854,212	1,854,212	1,854,212	1,854,212	890,675
18	Treatment	3	132,000	904,500	904,500	1,887,954	2,675,810	2,675,810	2,675,810	2,675,810	2,675,810	2,675,810	1,887,954
19	Transmission & Distribution	4	1,400,000	2,842,000	4,390,914	6,292,259	7,867,971	9,490,955	11,162,628	12,884,452	14,657,930	16,484,612	6,292,259
20	Miscellaneous / Admin	5	0	0	0	54,636	54,636	54,636	114,339	114,339	114,339	179,578	54,636
21	Total Growth-Related and Non-Growth Related		$1,627,000	$8,119,657	$10,464,246	$13,403,681	$16,611,381	$18,234,365	$20,085,146	$21,806,969	$23,580,448	$25,472,369	$13,403,681

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
WATER SYSTEM ASSET SUMMARY

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: ASSET_SUM

Function Code	Functional Category	Asset Count	Original Cost	RCN
1	Storage	9	$1,523,750	$2,657,581
2	Source of Supply	7	284,561	295,554
3	Treatment	15	5,770,286	12,054,810
4	Transmission & Distribution	91	17,481,933	28,900,453
5	Miscellaneous / Admin	12	1,503,320	1,699,709
6	Water Rights	13	1,996,925	1,996,925
	Total		$ 28,560,776	$ 47,605,032

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
O&M ALLOCATIONS TO FUNCTIONAL COSTS

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_OMFUNC

Line No.	Description	Total	Source of Supply / Water Rights	Treatment	Storage	Transmission	Distribution	Meters and Services	Customer Accounting and Billing	Total
1	Water Rights Management	$222,326	$222,326	$0	$0	$0	$0	$0	$0	$222,326
2	Water Storage	0	0	0	0	0	0	0	0	0
3	Water Treatment	297,685	0	297,685	0	0	0	0	0	297,685
4	Distribution	347,246	0	0	0	45,142	302,104	0	0	347,246
5	Water Meter Reading/Billing	100,707	0	0	0	0	0	50,354	50,354	100,707
6	Water Administration	359,346	82,536	110,512	0	16,758	112,153	18,693	18,693	359,346
7	Total O&M	$1,327,310	$304,862	$408,197	$0	$61,900	$414,257	$69,047	$69,047	$1,327,310
	Allocations to Functions (1)									
8	Water Rights Management	100.0%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
9	Water Storage	100.0%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	
10	Water Treatment	100.0%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
11	Distribution	100.0%	0.00%	0.00%	0.00%	13.00%	87.00%	0.00%	0.00%	
12	Water Meter Reading/Billing	100.0%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	
13	Water Administration	100.0%	22.97%	30.75%	0.00%	4.66%	31.21%	5.20%	5.20%	
14	Weighted Average	100.0%	22.97%	30.75%	0.00%	4.66%	31.21%	5.20%	5.20%	

(1) Based on City budget by functional cost categories based on 2010 budget adjusted for inflation and additional expenses. Water Admin / Distribution is split between transmission and distribution based on current inventory of pipelines by diameter size.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_OMALLO

Line No.	Description	(1) Total	(2) Base	(3) Extra Capacity: Maximum Day	(4) Extra Capacity: Maximum Hour	(5) Customer: Local Distribution Lines	(6) Customer: Meters and Services	(7) Customer: Billing/ Customer Service	(8) Direct Fire Protection
		$	$	$	$	$	$	$	$
1	Source of Supply / Water Rights	100.00%	42.00%	58.00%	0.00%				
2	Treatment	100.00%	42.00%	58.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3	Storage	100.00%	26.00%	36.00%	38.00%	0.00%	0.00%	0.00%	0.00%
4	Transmission	100.00%	26.00%	36.00%	38.00%	0.00%	0.00%	0.00%	0.00%
5	Distribution	100.00%	14.00%	18.00%	18.00%	50.00%	0.00%	0.00%	0.00%
6	Meters and Services	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
7	Customer Accounting and Billing	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
8	Source of Supply / Water Rights	$304,862	$128,042	$176,820	$0	$0	$0	$0	$0
9	Treatment	408,197	171,443	236,754	0	0	0	0	0
10	Storage	0	0	0	0	0	0	0	0
11	Transmission	61,900	16,094	22,284	23,522	0	0	0	0
12	Distribution	414,257	57,996	74,566	74,566	207,128	0	0	0
13	Meters and Services	69,047	0	0	0	0	69,047	0	0
14	Customer Accounting and Billing	69,047	0	0	0	0	0	69,047	0
15	**Total Operation and Maintenance Expense**	**$1,327,310**	**$373,575**	**$510,425**	**$98,088**	**$207,128**	**$69,047**	**$69,047**	**$0**
16	*Percent of Total*	*100.0%*	*28.15%*	*38.46%*	*7.39%*	*15.61%*	*5.20%*	*5.20%*	*0.00%*
	Total O&M Excluding Administration								
17	*Amount*	$1,327,310	$373,575	$510,425	$98,088	$207,128	$69,047	$69,047	$0
18	*Percent*	*100.00%*	*28.15%*	*38.46%*	*7.39%*	*15.61%*	*5.20%*	*5.20%*	*0.00%*

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF ADJUSTMENTS TO REVENUE REQUIREMENTS

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_REVADJ

Line No.	Description	(1) Total	(2) Base	(3) Extra Capacity: Maximum Day	(4) Extra Capacity: Maximum Hour	(5) Customer: Local Distribution Lines	(6) Customer: Meters and Services	(7) Customer: Billing/ Customer Service	(8) Direct Fire Protection
1	Meter Sales	($5,152)	($1,450)	($1,981)	($381)	($804)	($268)	($268)	$0
2	Misc Chgs - taxable	(5,667)	(1,595)	(2,179)	(419)	(884)	(295)	(295)	0
3	Charges for Service	(8,758)	(2,465)	(3,368)	(647)	(1,367)	(456)	(456)	0
4	Penalties	0	0	0	0	0	0	0	0
5	Interest Income - Invest	(14,177)	(3,990)	(5,452)	(1,048)	(2,212)	(737)	(737)	0
6	Filtration Bay Lease Pmt	(48,203)	(11,392)	(15,754)	(8,719)	(12,337)	0	0	0
7	Bond / Loan Proceeds - Non Growth	0	0	0	0	0	0	0	0
8	Grants	0	0	0	0	0	0	0	0
9	2011 CWRPDA Project Fund	0	0	0	0	0	0	0	0
10	Debt Service Reserve Deposit (New Debt)	0	0	0	0	0	0	0	0
11	Transfer to General Fund	0	0	0	0	0	0	0	0
12	Loan (To) Tap Fee Subfund	0	0	0	0	0	0	0	0
13	Increase (Decrease) in Operating Reserves	45,378	10,725	14,831	8,208	11,614	0	0	0
14	Total	($36,578)	($10,168)	($13,903)	($3,005)	($5,990)	($1,756)	($1,756)	$0
15	Total - Weighted Average		27.80%	38.01%	8.22%	16.38%	4.80%	4.80%	0.00%
16	Meter Sales		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
17	Misc Chgs - taxable		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
18	Charges for Service		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
19	Penalties		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
20	Interest Income - Invest		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
21	Filtration Bay Lease Pmt		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
22	Bond / Loan Proceeds - Non Growth		28.15%	38.46%	7.39%	15.61%	5.20%	5.20%	0.00%
23	Grants		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
24	2011 CWRPDA Project Fund		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
25	Debt Service Reserve Deposit (New Debt)		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
26	Transfer to General Fund		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
27	Loan (To) Tap Fee Subfund		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%
28	Increase (Decrease) in Operating Reserves		23.63%	32.68%	18.09%	25.59%	0.00%	0.00%	0.00%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ESTIMATED UNITS OF SERVICE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_SERVUNITS

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Water Use		Maximum Day Demand			Maximum Hour Demand								
Line No.	Customer Class	Annual	Average Day	Demand Factor	Total Demand	Extra Demand	Demand Factor	Total Demand	Extra Demand	Units	Bills	Eq. Meters (Meter Cap.)	Eq. Meters (Meter Cost)	Direct Weighted Fire Units	Indirect Weighted Fire Units
		1,000 gallons	gpd		gpd	gpd		gpd	gpd						
	Inside City														
1	Residential	189,401	518,907	258%	1,338,076	819,170	413%	2,140,922	802,846	3,182	32,944	3,008	2,910	0	8,236,000
2	Commercial	112,012	306,882	249%	762,805	455,923	398%	1,220,488	457,683	475	5,428	907	751	0	4,749,500
3	Combined	13,541	37,099	191%	70,985	33,886	306%	113,575	42,591	188	802	171	131	0	701,750
4	Senior	3,699	10,134	242%	24,575	14,441	388%	39,320	14,745	101	620	52	52	0	155,000
5	**Total Inside City**	**318,653**	**873,022**		**2,196,441**	**1,323,419**		**3,514,305**	**1,317,865**	**3,946**	**39,794**	**4,138**	**3,844**	**0**	**13,842,250**
	Steamboat II														
6	Steamboat II - All Customers	44,381	121,592	161%	196,242	74,651	258%	313,988	117,745	416	12	60	60	0	0
7	**Total Steamboat II**	**44,381**	**121,592**		**196,242**	**74,651**		**313,988**	**117,745**	**428**	**12**	**60**	**60**	**0**	**0**
	Fire Protection														
8	Inside City				630	630		5,040	4,410						
9	Steamboat II				0	0		0	0						
10	**Total Fire Protection**				**630**	**630**		**5,040**	**4,410**						
11	**Total System**	**363,034**	**994,614**		**2,393,313**	**1,398,700**		**3,833,333**	**1,440,020**	**4,374**	**39,806**	**4,198**	**3,904**	**0**	**13,842,250**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DEVELOPMENT OF UNIT COSTS OF SERVICE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_ULTUNITS

Line No.	Description	(1) Total	(2) Base	(3) Extra Capacity Maximum Day	(4) Extra Capacity Maximum Hour	(5) Customer Local Distribution Lines	(6) Customer Meters and Services	(7) Customer Billing/ Customer Service	(8) Direct Fire Protection
		$	$	$	$	$	$	$	$
	Revenue Requirements - $								
1	Source of Supply / Water Rights	$304,862	$128,042	$176,820	$0	$0	$0	$0	$0
2	Treatment	408,197	171,443	236,754	0	0	0	0	0
3	Storage	0	0	0	0	0	0	0	0
4	Transmission	61,900	16,094	22,284	23,522	0	0	0	0
5	Distribution	414,257	57,996	74,566	74,566	207,128	0	0	0
6	Meters and Services	69,047	0	0	0	0	69,047	0	0
7	Customer Accounting and Billing	69,047	0	0	0	0	0	69,047	0
8	Operating Costs	1,327,310	373,575	510,425	98,088	207,128	69,047	69,047	0
9	Source of Supply / Water Rights	132,983	55,853	77,130	0	0	0	0	0
10	Treatment	321,049	134,841	186,208	0	0	0	0	0
11	Storage	243,228	63,239	87,562	92,427	0	0	0	0
12	Constructed Water Lines - Transmission	129,566	33,687	46,644	49,235	0	0	0	0
13	Constructed Water Lines - Distribution	867,096	112,723	156,077	164,748	433,548	0	0	0
14	Miscellaneous / Admin	65,313	15,436	21,346	11,814	16,716	0	0	0
15	Capital Costs	1,759,235	415,779	574,968	318,224	450,265	0	0	0
16	Source of Supply / Water Rights	437,846	183,895	253,951	0	0	0	0	0
17	Treatment	729,246	306,283	422,963	0	0	0	0	0
18	Storage	243,228	63,239	87,562	92,427	0	0	0	0
19	Transmission	191,467	49,781	68,928	72,757	0	0	0	0
20	Distribution	1,281,353	170,719	230,644	239,315	640,677	0	0	0
21	Miscellaneous / Admin	65,313	15,436	21,346	11,814	16,716	0	0	0
22	Meters and Services	69,047	0	0	0	0	69,047	0	0
23	Customer Accounting and Billing	69,047	0	0	0	0	0	69,047	0
24	**Total Revenue Requirements**	**3,086,546**	**789,354**	**1,085,393**	**416,313**	**657,393**	**69,047**	**69,047**	**0**
25	**Adjustment to Cost of Service**	(36,578)	(10,168)	(13,903)	(3,005)	(5,990)	(1,756)	(1,756)	0
26	**Net Cost of Service**	**3,049,968**	**779,186**	**1,071,490**	**413,307**	**651,403**	**67,291**	**67,291**	**0**
27	All Customer Costs	1,805,192	618,635	854,749	176,998	16,716	69,047	69,047	0
28	City only Costs	1,281,353	170,719	230,644	239,315	640,677	0	0	0
29	**Total Revenue Requirements**	3,086,546	789,354	1,085,393	416,313	657,393	69,047	69,047	0
30	All Customer Costs	(21,393)	(5,947)	(8,131)	(1,758)	(3,503)	(1,027)	(1,027)	0
31	City only Costs	(15,185)	(4,221)	(5,772)	(1,248)	(2,487)	(729)	(729)	0
32	**Adjustment to Cost of Service**	(36,578)	(10,168)	(13,903)	(3,005)	(5,990)	(1,756)	(1,756)	0
33	All Customer Costs	1,783,799	612,688	846,618	175,240	13,213	68,020	68,020	0
34	City only Costs	1,266,168	166,498	224,872	238,067	638,190	(729)	(729)	0
35	**Net Cost of Service**	**$3,049,968**	**$779,186**	**$1,071,490**	**$413,307**	**$651,403**	**$67,291**	**$67,291**	**$0**
	Units of Service								
36	All Customer Costs		363,034	1,398,700	1,440,020	4,374	3,904	39,806	
37	City only Costs		318,653	1,324,049	1,322,275	3,946	3,844	39,794	
	Unit Cost of Service								
38	All Customer Costs		$1.688	$0.605	$0.122	$3.021	$17.423	$1.709	
39	City only Costs		0.523	0.170	0.180	161.719	(0.190)	(0.018)	
40	City Costs		2.210	0.775	0.302	164.740	17.234	1.690	
41	Steamboat II Costs		$1.688	$0.605	$0.122	$3.021	$17.423	$1.709	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO CUSTOMER CLASSES - INSIDE CITY

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_CUST_ALLOC_CTY

Line No.	Customer Class	(1) Total	(2) Base	(3) Extra Capacity Maximum Day	(4) Extra Capacity Maximum Hour	(5) Customer Local Distribution Lines	(6) Customer Meters and Services	(7) Customer Billing/ Customer Service	(8) Direct Fire Protection
1	**Unit Costs of Service - $/unit**		$2.210	$0.775	$0.302	$164.740	$17.234	$1.690	$0.000
	Residential								
2	Units		189,401	819,170	802,846	3,182	2,910	32,944	
3	Cost of Service - $	$1,925,886	$418,613	$634,959	$242,248	$524,225	$50,150	$55,691	
	Commercial								
4	Units		112,012	455,923	457,683	475	751	5,428	
5	Cost of Service - $	$839,448	$247,568	$353,397	$138,100	$78,265	$12,942	$9,176	
	Combined								
6	Units		13,541	33,886	42,591	188	131	802	
7	Cost of Service - $	$103,657	$29,928	$26,266	$12,851	$30,998	$2,258	$1,356	
	Senior								
8	Units		3,699	14,441	14,745	101	52	620	
9	Cost of Service - $	$42,385	$8,176	$11,194	$4,449	$16,622	$896	$1,048	
10	**Total City - $**	**$2,911,376**	**$704,285**	**$1,025,816**	**$397,648**	**$650,110**	**$66,246**	**$67,271**	**$0**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO CUSTOMER CLASSES - WHOLESALE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_CUST_ALLOC_SII

Line No.	Customer Class	(1) Total	(2) Base	(3) Extra Capacity Maximum Day	(4) Extra Capacity Maximum Hour	(5) Customer Local Distribution Lines	(6) Customer Meters and Services	(7) Customer Billing/ Customer Service	(8) Direct Fire Protection
1	**Unit Costs of Service - $/unit**		$1.688	$0.605	$0.122	$3.021	$17.423	$1.709	$0.000
	Steamboat II								
2	Units		44,381	74,651	117,745	416	60	12	
3	Cost of Service - $	$136,738	$74,901	$45,185	$14,329	$1,257	$1,045	$21	
4	**Total Steamboat II - $**	**$136,738**	**$74,901**	**$45,185**	**$14,329**	**$1,257**	**$1,045**	**$21**	**$0**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO CUSTOMER CLASSES - SUMMARY

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_CUST_ALLOC_SUM

Line No.	Customer Class	(1) Total	(2) Base	(3) Extra Capacity Maximum Day	(4) Extra Capacity Maximum Hour	(5) Customer Local Distribution Lines	(6) Customer Meters and Services	(7) Customer Billing/ Customer Service	(8) Direct Fire Protection
	Total Costs								
1	City	$2,911,376	$704,285	$1,025,816	$397,648	$650,110	$66,246	$67,271	$0
2	Steamboat II	136,738	74,901	45,185	14,329	1,257	1,045	21	0
3	**Total System**	**$3,048,114**	**$779,186**	**$1,071,001**	**$411,977**	**$651,367**	**$67,291**	**$67,292**	**$0**
	Fire Protection								
	City								
4	Units			630	4,410				0
5	Cost of Service - $	$1,819		$488	$1,331				$0
	Wholesale								
6	Units			0	0				0
7	Cost of Service - $	$0		$0	$0				$0
8	**Total Fire Protection**	**$1,819**	**$0**	**$488**	**$1,331**	**$0**	**$0**	**$0**	**$0**
9	**Total Cost of Service**	**$3,049,968**	**$779,186**	**$1,071,490**	**$413,307**	**$651,403**	**$67,291**	**$67,291**	**$0**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ADJUSTED COST OF SERVICE

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_ADJCOS

Line No.	Customer Class	(1) Distributed Cost	(2) Direct Fire Protection Adjustment	(3) Indirect Fire Protection Adjustment	(4) Cost of Service
	City				
1	Residential	$1,925,886	$0	$1,082	$1,926,968
2	Commercial	839,448	0	624	840,072
3	Combined	103,657	0	92	103,749
4	Senior	42,385	0	20	42,405
5	**Total**	**2,911,376**	**0**	**1,819**	**2,913,195**
	Wholesale				
6	Steamboat II	136,738	0	0	136,738
7	**Total**	**136,738**	**0**	**0**	**136,738**
8	**Total Water System**	**3,048,114**	**0**	**1,819**	**3,049,933**
	Fire Protection				
9	In City Public Fire Protection	1,819	0	(1,819)	0
10	Out District Public Fire Protection	0	0	0	0
11	**Total Fire Protection**	**1,819**	**0**	**(1,819)**	**0**
12	**Total System**	**$3,049,933**	**$0**	**$0**	**$3,049,933**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
INPUT - SYSTEM LINE FEET BY DIAMETER SIZE (1)

FILE: Stmboat_W
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_LINE SIZE

Diameter (Inches)	Pipe Length, feet	Inch-Feet	Percent
2	0	0	0.00%
3	0	0	0.00%
4	9,430	37,720	1.19%
6	27,765	166,590	5.26%
8	149,357	1,194,856	37.75%
10	34,570	345,700	10.92%
12	81,660	979,920	30.96%
14	3,150	44,100	1.39%
15	0	0	0.00%
16	13,460	215,360	6.80%
18	0	0	0.00%
20	7,890	157,800	4.99%
24	0	0	0.00%
27	0	0	0.00%
30	760	22,800	0.72%
Total	328,042	3,164,846	100.00%

Distribution	**Less Than 16"**	**2,768,886**	**87.0%**
Transmission	**16" and Greater**	**395,960**	**13.0%**
		3,164,846	**100.0%**

(1) City of Steamboat Springs Water and Wastewater Pipeline Inventory Data as of 12/31/15 provided by Greg Neppl.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
MONTHLY DEMAND BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**COS**
DATE:	**08/12/16**
RANGE:	**COS_PEAKING**

Inside City	**2014 January**	**2014 February**	**2014 March**	**2014 April**	**2014 May**	**2014 June**	**2014 July**	**2014 August**	**2014 September**	**2014 October**	**2014 November**	**2014 December**	**2014 Total**
Residential	11,332	10,266	11,137	9,474	13,335	28,123	33,104	21,998	14,754	10,733	9,855	10,699	184,810
Commercial	5,910	5,941	6,488	5,381	7,236	15,111	18,067	14,754	10,648	6,721	5,260	5,869	107,386
Combined	1,084	1,071	1,223	993	1,170	1,416	1,853	1,485	1,121	983	848	1,032	14,279
Senior	194	177	204	202	242	515	601	428	297	227	210	214	3,511
Total Inside City	18,520	17,455	19,052	16,050	21,983	45,165	53,625	38,665	26,820	18,664	16,173	17,814	309,986
Steamboat II													
Residential	2,902	3,394	3,165	3,497	2,950	4,477	4,650	4,650	4,650	4,110	2,944	3,065	44,453
Commercial													0
Combined													0
Total Steamboat II	2,902	3,394	3,165	3,497	2,950	4,477	4,650	4,650	4,650	4,110	2,944	3,065	44,453
Total	21,422	20,849	22,217	19,547	24,933	49,642	58,275	43,315	31,470	22,774	19,117	20,879	354,439

Inside City	**2015 January**	**2015 February**	**2015 March**	**2015 April**	**2015 May**	**2015 June**	**2015 July**	**2015 August**	**2015 September**	**2015 October**	**2015 November**	**2015 December**	**2015 Total**
Residential	10,877	9,452	9,071	11,371	11,529	21,687	27,609	26,944	18,871	12,481	10,384	11,518	181,794
Commercial	6,455	5,958	5,890	6,482	7,044	11,751	16,589	16,151	13,024	8,174	6,098	6,090	109,706
Combined	1,048	970	900	918	838	1,077	1,379	1,345	1,021	883	718	925	12,022
Senior	257	203	185	249	228	432	506	508	349	257	206	217	3,597
Total Inside City	18,637	16,583	16,046	19,020	19,639	34,947	46,083	44,948	33,265	21,795	17,406	18,750	307,119
Steamboat II													
Residential	3,412	3,534	3,411	3,609	3,152	3,878	4,358	4,418	4,495	4,189	2,885	2,427	43,769
Commercial													0
Combined													0
Total Steamboat II	3,412	3,534	3,411	3,609	3,152	3,878	4,358	4,418	4,495	4,189	2,885	2,427	43,769
Total	22,049	20,117	19,457	22,629	22,791	38,825	50,441	49,366	37,760	25,984	20,291	21,177	350,888

Inside City	**Average January**	**Average February**	**Average March**	**Average April**	**Average May**	**Average June**	**Average July**	**Average August**	**Average September**	**Average October**	**Average November**	**Average December**	**Total**
Residential	11,105	9,859	10,104	10,423	12,432	24,905	30,357	24,471	16,813	11,607	10,120	11,109	183,302
Commercial	6,183	5,950	6,189	5,932	7,140	13,431	17,328	15,453	11,836	7,448	5,679	5,980	108,546
Combined	1,066	1,021	1,062	956	1,004	1,247	1,616	1,415	1,071	933	783	979	13,151
Senior	226	190	195	226	235	474	554	468	323	242	208	216	3,554
Total Inside City	18,579	17,019	17,549	17,535	20,811	40,056	49,854	41,807	30,043	20,230	16,790	18,282	308,553
Steamboat II													
Residential	3,157	3,464	3,288	3,553	3,051	4,178	4,504	4,534	4,572	4,149	2,915	2,746	44,111
Commercial	0	0	0	0	0	0	0	0	0	0	0	0	0
Combined	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Steamboat II	3,157	3,464	3,288	3,553	3,051	4,178	4,504	4,534	4,572	4,149	2,915	2,746	44,111
Total	21,736	20,483	20,837	21,088	23,862	44,234	54,358	46,340	34,615	24,379	19,704	21,028	352,664
												54,358	29,389	1.85

Inside City	**Annual Use**	**Class Average Day**	**System Average Month Demand**	**Max Month (Non-Coincidental)**	**Average Month Use**	**Peak Month / Average Month**	**Peak Day Use**	**Adjustment to Achieve System Peak Day Demand**	**Adjusted Peak Day Use**	**Adjustment to Recognize Diversity of Demands**	**Adjusted Class Peak Day Factors**	**Adjusted Peak Day Use**	**Peak Hour Factor**	**Adjusted Peak Hour Use**
Residential	183,302	502	29,389	30,357	15,275	1.99	998	1.30	1,293	1.00	2.58	1,293	4.12	2,069
Commercial	108,546	297	29,389	17,328	9,046	1.92	570	1.30	738	1.00	2.48	738	3.97	1,181
Combined	13,151	36	29,389	1,616	1,096	1.47	53	1.30	69	1.00	1.91	69	3.06	110
Senior	3,554	10		554	296	1.87	18	1.30	24	1.00	2.42	24	3.88	38
Total Inside City	308,553	845		49,854	25,713	1.94	1,639	1.30	2,124	1.00	2.51	2,124	4.02	3,399
Steamboat II														
Residential	44,111	121	29,389	4,572	3,676	1.24	150	1.30	195	1.00	1.61	195	2.58	312
Commercial	0	0	29,389	0	0	0.00	0	1.30	0	1.00	0.00	0	0.00	0
Combined	0	0	29,389	0	0	0.00	0	1.30	0	1.00	0.00	0	0.00	0
Total Steamboat II	44,111	121		4,572	3,676	1.24	150	1.30	195	1.00	1.61	195	2.58	312
Total	352,664	966		54,426	29,389	1.85	1,789		2,319		2.40	2,319	3.84	3,710
									2.40			2.40		

System Wide Peak-Day Factor	2.40
System Wide Peak Hour Factor	3.84
System Wide Average Day Demand (kgal)	29,389
System Wide Peak Day Demands (kgal)	70,533
System Wide Peak Hour Demands (kgal)	112,852

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER CLASS FIRE PROTECTION REQUIREMENTS

FILE:	**Stmboat_W**
SCHEDULE:	**COS**
DATE:	**08/12/16**
RANGE:	**COS_FIRERQMT**

Input Fire Protection Data

1. Fire protection requirements are used to develop system fire protection requirements as well as customer class fire protection requirements. Customer class fire protection is presented in the following section.

2. Based on Insurance Services Office (ISO) guidelines, enter recommended maximum fire flow and flow duration for the utility into the HIGHLIGHTED cells below.

Maximum Fire Flow.....	3,500	gpm
Fire Duration.....	3	hours

3. The input table below documents fire flow requirements and fire duration for each customer class.
for each customer class.
a. In Columns 1 and 2, enter the maximum needed fire flow and fire duration
a. In Columns 1 and 2, enter the maximum needed fire flow and fire duration
for each customer class.
b. In Columns 3 and 4, assign a one (1) for the customer classes that share expenses for direct and indirect fire protection, respectively. Correspondingly, enter a zero (0) for those that do not participate in direct and/or indirect fire protection.

Note: Direct fire protection costs primarily include capital and maintenance expenses related to fire hydrants. Indirect fire protection costs primarily
expenses related to fire hydrants. Indirect fire protection costs primarily
include extra capacity costs related to providing needed fire flows.
include extra capacity costs related to providing needed fire flows.

Customer Class	(1) Maximum Needed Fire Flow gpm (1)	(2) Duration hrs. (1)	(3) Direct Fire Participation 1=Yes/0=No	(4) Indirect Fire Participation 1=Yes/0=No
Inside City				
Residential	1,500	2	0	1
Commercial	3,500	3	0	1
Combined	3,500	3	0	1
Senior	1,500	2	0	1
Steamboat II				
Residential	1,500	2	0	0
Commercial	3,500	3	0	0
Combined	3,500	3	0	0

(1) Source - City of Steamboat Springs Water and Wastewater Master Plan Updates, December 8, 2009 page IV-3.

APPENDIX C:

Water Rate Design Alternatives

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_RES**

Residential	**$**
Total Class Cost of Service	**1,981,603**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	3,182	29.77	1,136,786	
Total	**3,182**		**1,136,786**	1,136,786
Volume Rate Revenue Required				**844,816**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					3.05	
First	4,000	56.0%	106,065	1.000	3.05	323,497
Next	8,000	27.0%	51,138	1.500	4.58	233,958
Next	8,000	8.0%	15,152	2.296	7.00	106,091
Next	8,000	4.0%	7,576	2.996	9.14	69,220
All Over	28,000	5.0%	9,470	4.496	13.71	129,851
Total		**100.00%**	**189,401**		4.56	**862,617**
Total Revenue						**1,999,403**
Revenue Surplus (Deficiency)						17,800

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_COM**

Commercial				**$**
Total Class Cost of Service				**863,377**
Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	475	30.88	176,048	
Total	**475**		**176,048**	176,048
Volume Rate Revenue Required				**687,330**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All		100.0%	112,012	1.000	5.93	664,231
Total		**100.00%**	**112,012**		5.93	**664,231**
Total Revenue						**840,279**
Revenue Surplus (Deficiency)						(23,099)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_COB**

Combined				**$**
Total Class Cost of Service				**106,627**
Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	188	29.77	67,219	
Total	**188**		**67,219**	67,219
Volume Rate Revenue Required				**39,408**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All (1)		78.0%	10,562	1.000	5.93	62,633
Total		**78.00%**	**10,562**		5.93	**62,633**
Total Revenue						**129,852**
Revenue Surplus (Deficiency)						23,224

(1) Volume revenue projection assumes 78.0% of use not billed based on the Combined customer rate structur

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_SEN**

Low Income Senior	**$**
Total Class Cost of Service	**42,385**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	101	14.89	18,023	
Total	**101**		**18,023**	18,023
Volume Rate Revenue Required				**24,362**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					1.53	
First	4,000	56.0%	2,071	1.000	1.53	3,169
Next	8,000	27.0%	999	1.500	2.30	2,292
Next	8,000	8.0%	296	2.296	3.51	1,039
Next	8,000	4.0%	148	2.996	4.58	678
All Over	28,000	5.0%	185	4.496	6.88	1,272
Total		**100.00%**	**3,699**		2.29	**8,451**

Total Revenue	**26,474**
Revenue Surplus (Deficiency)	(15,911)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/15/16**
RANGE:	**ALT1_SII**

Steamboat II	**$**
Total Class Cost of Service	**136,738**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	0	0.00	0	
Total	**0**		**0**	0

Volume Rate Revenue Required	**136,738**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	glas	%	kgals		$ per kgal	$
All		100.0%	44,381	1.000	1.26	55,920
Total		**100.00%**	**44,381**		1.26	**55,920**

Total Steamboat II Revenue	**55,920**
Revenue Surplus (Deficiency)	(80,818)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_W
SCHEDULE: RATES_ALT 1
DATE: 08/12/16
RANGE: ALT1_SUM

		(1)	(2)	(3)	(4)	(5)	(6)
Line No.	**Customer Class**	**Cost of Service**	**Service Charge**	**Volume Charge**	**Total**	**Difference $**	**Difference %**
	City						
1	Residential	$1,969,374	$1,154,809	$871,068	$2,025,876	$56,503	3%
2	Commercial	840,072	176,048	664,231	840,279	207	0%
3	Combined	103,749	67,219	62,633	129,852	26,103	25%
4	**Total**	**2,913,195**	**1,398,076**	**1,597,931**	**2,996,007**	**82,812**	**3%**
	Wholesale Customers						
5	Steamboat II [1]	136,738	0	55,920	55,920	(80,818)	-59%
6	**Total**	**136,738**	**0**	**55,920**	**55,920**	**(80,818)**	**-59%**
7	**Total System**	**3,049,933**	**1,398,076**	**1,653,851**	**3,051,927**	**1,994**	**0%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_RES**

Residential	**$**
Total Class Cost of Service	**1,981,603**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	3,182	29.77	1,136,786	
Total	**3,182**		**1,136,786**	1,136,786

Volume Rate Revenue Required	**844,816**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					3.05	
First	4,000	56.0%	106,065	1.000	3.05	323,497
Next	8,000	27.0%	51,138	1.500	4.58	233,958
Next	8,000	8.0%	15,152	2.296	7.00	106,091
Next	8,000	4.0%	7,576	2.996	9.14	69,220
All Over	28,000	5.0%	9,470	4.496	13.71	129,851
Total		**100.00%**	**189,401**		4.56	**862,617**

Total Revenue	**1,999,403**
Revenue Surplus (Deficiency)	17,800

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/15/16**
RANGE:	**ALT2_COM**

Commercial	**$**
Total Class Cost of Service	**863,377**

Meter Size	Bills	Monthly Service Charge	Revenue	
inches		$	$	
3/4"	305	$15.72	$57,443	
1"	79	25.79	24,446	
1 1/2"	40	52.00	25,002	
2"	39	81.10	37,880	
3"	9	173.15	19,029	
4"	3	296.44	12,217	
6"	0	655.15	0	
8"	0	934.66	0	
Total	**475**		**$176,017**	176,017

Volume Rate Revenue Required	**687,361**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All		100.0%	112,012	1.000	5.93	664,231
Total		**100.00%**	**112,012**		5.93	**664,231**

Total Revenue	**840,248**
Revenue Surplus (Deficiency)	(23,130)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_COB**

Combined	**$**
Total Class Cost of Service	**106,627**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	188	29.77	67,219	
Total	**188**		**67,219**	67,219

Volume Rate Revenue Required	**39,408**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All (1)		78.0%	10,562	1.000	5.93	62,633
Total		**78.00%**	**10,562**		5.93	**62,633**

Total Revenue	**129,852**
Revenue Surplus (Deficiency)	23,224

(1) Volume revenue projection assumes 78.0% of use not billed based on the Combined customer rate structure.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_SEN**

Low Income Senior	**$**
Total Class Cost of Service	**42,385**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	101	14.89	18,029	
Total	**101**		**18,029**	18,029
Volume Rate Revenue Required				**24,356**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					1.53	
First	4,000	56.0%	2,071	1.000	1.53	3,169
Next	8,000	27.0%	999	1.500	2.30	2,292
Next	8,000	8.0%	296	2.296	3.51	1,039
Next	8,000	4.0%	148	2.996	4.58	678
All Over	28,000	5.0%	185	4.496	6.88	1,272
Total		**100.00%**	**3,699**		2.29	**8,451**
Total Revenue						**26,480**
Revenue Surplus (Deficiency)						(15,905)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_SII**

Steamboat II	**$**
Total Class Cost of Service	**136,738**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	0	0.00	0	
Total	**0**		**0**	0

Volume Rate Revenue Required	**136,738**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	glas	%	kgals		$ per kgal	$
All		100.0%	44,381	1.000	1.26	55,920
Total		**100.00%**	**44,381**		1.26	**55,920**

Total Outside District Revenue	**55,920**
Revenue Surplus (Deficiency)	(80,818)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CHARGES BY CLASS

FILE: Stmboat_W
SCHEDULE: RATES_ALT1
RANGE: ALT2_SUM

Line No.	Customer Class	(1) Cost of Service	(2) Service Charge	(3) Volume Charge	(4) Total	(5) Difference $	(6) Difference %
	City						
1	Residential	$1,969,374	$1,154,815	$871,068	$2,025,883	$56,509	3%
2	Commercial	840,072	176,017	664,231	840,248	176	0%
3	Combined	103,749	67,219	62,633	129,852	26,103	25%
4	**Total**	**2,913,195**	**1,398,051**	**1,597,931**	**2,995,982**	**82,787**	**3%**
	Wholesale Customers						
5	Steamboat II [1]	136,738	0	55,920	55,920	(80,818)	-59%
6	**Total**	**136,738**	**0**	**55,920**	**55,920**	**(80,818)**	**-59%**
7	**Total System**	**3,049,933**	**1,398,051**	**1,653,851**	**3,051,902**	**1,969**	**0%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 3**
DATE:	**08/12/16**
RANGE:	**ALT3_RES**

Residential	**$**
Total Class Cost of Service	**1,981,603**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	3,182	40.22	1,535,954	
Total	**3,182**		**1,535,954**	1,535,954
Volume Rate Revenue Required				**445,649**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					2.61	
First	4,000	56.0%	106,065	0.000	0.00	0
Next	8,000	27.0%	51,138	1.500	3.92	200,462
Next	8,000	8.0%	15,152	2.296	6.00	90,902
Next	8,000	4.0%	7,576	2.996	7.83	59,310
All Over	28,000	5.0%	9,470	4.496	11.75	111,260
Total		**100.00%**	**189,401**		2.44	**461,934**
Total Revenue						**1,997,888**
Revenue Surplus (Deficiency)						16,285

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 3**
DATE:	**08/15/16**
RANGE:	**ALT3_COM**

Commercial

	$
Total Class Cost of Service	**863,377**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	475	30.88	176,048	
Total	**475**		**176,048**	176,048

Volume Rate Revenue Required	**687,330**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All		100.0%	112,012	1.000	5.93	664,231
Total		**100.00%**	**112,012**		5.93	**664,231**

Total Revenue	**840,279**
Revenue Surplus (Deficiency)	(23,099)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_W
SCHEDULE: RATE - ALT 3
DATE: 08/12/16
RANGE: ALT3_COB

Combined				**$**
Total Class Cost of Service				**106,627**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	188	40.22	90,822	
Total	**188**		**90,822**	90,822

Volume Rate Revenue Required	**15,805**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					5.93	
All (1)		48.0%	6,500	1.000	5.93	38,543
Total		**48.0%**	**6,500**		5.93	**38,543**

Total Revenue	**129,366**
Revenue Surplus (Deficiency)	22,738

(1) Volume revenue projection assumes 78.0% of use not billed based on the Combined customer rate structur

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: **Stmboat_W**
SCHEDULE: **RATE - ALT 3**
DATE: **08/15/16**
RANGE: **ALT3_SEN**

Low Income Senior	**$**
Total Class Cost of Service	**42,405**

Meter Size	Units	Monthly Service Charge	Annual Revenue	
inches		$	$	
All	101	20.13	24,373	
Total	**101**		**24,373**	24,373

Volume Rate Revenue Required	**18,032**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	gals	%	kgals		$ per kgal	$
					1.31	
First	4,000	56.0%	2,071	0.000	0.00	0
Next	8,000	27.0%	999	1.500	1.97	1,963
Next	8,000	8.0%	296	2.296	3.01	890
Next	8,000	4.0%	148	2.996	3.92	581
All Over	28,000	5.0%	185	4.496	5.89	1,089
Total		**100.00%**	**3,699**		1.23	**4,522**

Total Revenue	**28,895**
Revenue Surplus (Deficiency)	(13,510)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_W**
SCHEDULE:	**RATE - ALT 3**
DATE:	**08/12/16**
RANGE:	**ALT3_SII**

Steamboat II

	$
Total Class Cost of Service	**136,738**

Meter Size	Units	Monthly Service Charge	Revenue	
inches		$	$	
All	0	0.00	0	
Total	**0**		**0**	0

Volume Rate Revenue Required	**136,738**

Calculated Volume Rate ($ per kgal)

Block	Block Ending	Volume in Block	Billed Volume	Cumulative Factor	Volume Rate	Rate Revenue
	glas	%	kgals		$ per kgal	$
All		100.0%	44,381	1.000	1.26	55,920
Total		**100.00%**	**44,381**		1.26	**55,920**

Total Steamboat II	**55,920**
Revenue Surplus (Deficiency)	(80,818)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_W
SCHEDULE: RATES_ALT1
DATE: 08/15/16
RANGE: ALT3_SUM

Line No.	Customer Class	(1) Cost of Service	(2) Service Charge	(3) Volume Charge	(4) Total	(5) Difference $	(6) Difference %
	City						
1	Residential	$1,969,374	$1,560,327	$466,457	$2,026,783	$57,409	3%
2	Commercial	840,072	176,048	664,231	840,279	207	0%
3	Combined	103,749	90,822	38,543	129,366	25,616	25%
4	**Total**	**2,913,195**	**1,827,197**	**1,169,231**	**2,996,427**	**83,232**	**3%**
	Wholesale Customers						
5	Steamboat II [1]	136,738	0	55,920	55,920	(80,818)	-59%
6	**Total**	**136,738**	**0**	**55,920**	**55,920**	**(80,818)**	**-59%**
7	**Total System**	**3,049,933**	**1,827,197**	**1,225,151**	**3,052,348**	**2,415**	**0%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PHASED IN RATES
ALTERNATIVE 1 - EXISTING STRUCTURE

FILE: Stmboat_W
SCHEDULE: MULTI_YR
DATE: 08/12/16
RANGE: Phased_alt1

	Existing	Alternative 1		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential	$21.96	$24.38	$27.07	$29.77
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	24.38	27.07	29.77
Low Income Senior	10.98	12.19	13.54	14.89
Residential Volume Rate per 1,000 gallons				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Low Income Senior Volume Rate per 1,000 gallons				
0 - 4,000 gallons	1.15	1.27	1.40	1.53
4,001 - 12,000 gallons	1.73	1.90	2.09	2.30
12,001 - 20,000 gallons	2.64	2.91	3.20	3.51
20,001 - 28,000 gallons	3.45	3.79	4.18	4.58
> 28,000 gallons	5.17	5.69	6.27	6.88
Steamboat II Volume Rate per 1,000 gallons	1.15	1.19	1.23	1.26

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER BILL IMPACT
ALTERNATIVE 1 PHASED RATES

FILE: Stmboat_W
SCHEDULE: BILLIMP2
DATE: 08/15/16
RANGE: Phased_alt1_billimp

Customer Classification	Monthly Use	Current	Alt 1 - 2017			Alt 1 - 2018			Alt 1 - 2019		
	kgal		$	Diff - $	Diff - %	$	Diff - $	Diff - %	$	Diff - $	Diff - %
Inside City - Residential	2	$26.56	$29.46	$2.90	10.9%	$32.65	$3.19	10.8%	$35.87	$3.22	9.9%
	4	31.16	34.54	3.38	10.8%	38.23	3.69	10.7%	41.97	3.74	9.8%
	7	41.51	45.97	4.46	10.7%	50.80	4.83	10.5%	55.70	4.90	9.6%
	15	74.60	82.55	7.95	10.7%	91.00	8.46	10.2%	99.58	8.57	9.4%
	20	101.00	111.76	10.76	10.6%	123.09	11.33	10.1%	134.58	11.50	9.3%
Inside City - Commercial 3/4"	28	139.54	157.17	17.63	12.6%	176.76	19.59	12.5%	196.92	20.16	11.4%
	50	231.28	260.79	29.51	12.8%	293.58	32.79	12.6%	327.38	33.80	11.5%
Inside City - Commercial 2"	50	231.28	260.79	29.51	12.8%	293.58	32.79	12.6%	327.38	33.80	11.5%
	70	314.68	354.99	40.31	12.8%	399.78	44.79	12.6%	445.98	46.20	11.6%
Steamboat II - Residential (1)	3,844	4,420.60	4,574.36	153.76	3.5%	4,728.12	153.76	3.4%	4,843.44	115.32	2.4%

(1) Inflation adjustment to rate; not cost of service.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PHASED IN RATES
ALTERNATIVE 2, NON-RESIDENTIAL MSC BY METER SIZE

FILE: Stmboat_W
SCHEDULE: MULTI_YR
DATE: 08/12/16
RANGE: Phased_alt2

	Existing	Alternative 2		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential	$21.96	$24.38	$27.07	$29.77
Commercial				
3/4"	22.78	12.88	14.30	15.72
1"	22.78	21.13	23.46	25.79
1 1/2"	22.78	42.61	47.30	52.00
2"	22.78	66.45	73.77	81.10
3"	22.78	141.87	157.51	173.15
4"	22.78	242.88	269.66	296.44
6"	22.78	536.79	595.97	655.15
8"	22.78	765.80	850.23	934.66
Combined	21.96	24.39	27.08	29.77
Low Income Senior	10.98	12.20	13.54	14.89
Residential Volume Rate per 1,000 gallons				
0 - 4,000 gallons	2.30	2.54	2.79	3.05
4,001 - 12,000 gallons	3.45	3.81	4.19	4.58
12,001 - 20,000 gallons	5.28	5.84	6.42	7.00
20,001 - 28,000 gallons	6.89	7.62	8.37	9.14
> 28,000 gallons	10.34	11.43	12.56	13.71
Commercial Volume Rate per 1,000 gallons	$4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	$4.17	4.71	5.31	5.93
Low Income Senior Volume Rate per 1,000 gallons				
0 - 4,000 gallons	1.15	1.27	1.40	1.53
4,001 - 12,000 gallons	1.73	1.90	2.09	2.30
12,001 - 20,000 gallons	2.64	2.91	3.20	3.51
20,001 - 28,000 gallons	3.45	3.79	4.18	4.58
> 28,000 gallons	5.17	5.69	6.27	6.88
Steamboat II Volume Rate per 1,000 gallons	1.15	1.19	1.23	1.26

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER BILL IMPACT
ALTERNATIVE 2 PHASED RATES

FILE: Stmboat_W
SCHEDULE: BILLIMP2
DATE: 08/15/16
RANGE: Phased_alt2_billimp

Customer Classification	Monthly Use	Current	Alt 2 - 2017			Alt 2 - 2018			Alt 2 - 2019		
	kgal		$	Diff - $	Diff - %	$	Diff - $	Diff - %	$	Diff - $	Diff - %
Inside City - Residential	2	$26.56	$29.46	$2.90	10.9%	$32.65	$3.19	10.8%	$35.87	$3.22	9.9%
	4	31.16	34.54	3.38	10.8%	38.23	3.69	10.7%	41.97	3.74	9.8%
	7	41.51	45.97	4.46	10.7%	50.80	4.83	10.5%	55.70	4.90	9.6%
	15	74.60	82.54	7.94	10.6%	91.01	8.47	10.3%	99.58	8.57	9.4%
	20	101.00	111.74	10.74	10.6%	123.11	11.37	10.2%	134.58	11.47	9.3%
Inside City - Commercial 3/4"	28	139.54	144.76	5.22	3.7%	162.98	18.22	12.6%	181.76	18.78	11.5%
	50	231.28	248.38	17.10	7.4%	279.80	31.42	12.6%	312.22	32.42	11.6%
Inside City - Commercial 2"	50	231.28	301.95	70.67	30.6%	339.27	37.32	12.4%	377.60	38.33	11.3%
	70	314.68	396.15	81.47	25.9%	445.47	49.32	12.4%	496.20	50.73	11.4%
Steamboat II - Residential (1)	3,844	4,420.60	4,574.36	153.76	3.5%	4,728.12	153.76	3.4%	4,843.44	115.32	2.4%

(1) Inflation adjustment to rate; not cost of service.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PHASED IN RATES
ALTERNATIVE 3 - EXISTING STRUCTURE, 0-4,000 GALLONS IN MINIMUM CHARGE

FILE: Stmboat_W
SCHEDULE: MULTI_YR
DATE: 08/12/16
RANGE: Phased_alt3

	Existing	Alternative 3		
	2016	2017	2018	2019
Monthly Minimum Charge - City (1)				
Residential	$21.96	$32.06	$36.17	$40.22
Commercial	22.78	25.29	28.08	30.88
Combined	21.96	32.06	36.17	40.22
Low Income Senior	10.98	16.03	18.09	20.11
Residential Volume Rate per 1,000 gallons				
0 - 4,000 gallons (1)	2.30	0.00	0.00	0.00
4,001 - 12,000 gallons	3.45	3.60	3.74	3.92
12,001 - 20,000 gallons	5.28	5.51	5.72	6.00
20,001 - 28,000 gallons	6.89	7.19	7.47	7.83
> 28,000 gallons	10.34	10.79	11.21	11.75
Commercial Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Combined Volume Rate per 1,000 gallons	4.17	4.71	5.31	5.93
Low Income Senior Volume Rate per 1,000 gallons				
0 - 4,000 gallons	1.15	0.00	0.00	0.00
4,001 - 12,000 gallons	1.73	1.80	1.87	1.96
12,001 - 20,000 gallons	2.64	2.76	2.86	3.00
20,001 - 28,000 gallons	3.45	3.60	3.74	3.91
> 28,000 gallons	5.17	5.40	5.61	5.87
Steamboat II Volume Rate per 1,000 gallons (2)	1.15	1.19	1.23	1.26

(1) For only Residential accounts, the first 4,000 gallons per unit is included in the Minimum Charge.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER BILL IMPACT
ALTERNATIVE 3 PHASED RATES

FILE: Stmboat_W
SCHEDULE: BILLIMP2
DATE: 08/15/16
RANGE: Phased_alt3_billimp

Customer Classification	Monthly Use	Current	Alt 3 - 2017			Alt 3 - 2018			Alt 3 - 2019		
	kgal		$	Diff - $	Diff - %	$	Diff - $	Diff - %	$	Diff - $	Diff - %
Inside City - Residential	2	$26.56	$32.06	$5.50	20.7%	$36.17	$4.11	12.8%	$40.22	$4.05	11.2%
	4	31.16	32.06	0.90	2.9%	36.17	4.11	12.8%	40.22	4.05	11.2%
	7	41.51	42.86	1.35	3.3%	47.39	4.53	10.6%	51.98	4.59	9.7%
	15	74.60	77.39	2.79	3.7%	83.25	5.86	7.6%	89.58	6.33	7.6%
	20	101.00	104.94	3.94	3.9%	111.85	6.91	6.6%	119.58	7.73	6.9%
Inside City - Commercial 3/4"	28	139.54	157.17	17.63	12.6%	176.76	19.59	12.5%	196.92	20.16	11.4%
	50	231.28	260.79	29.51	12.8%	293.58	32.79	12.6%	327.38	33.80	11.5%
Inside City - Commercial 2"	50	231.28	260.79	29.51	12.8%	293.58	32.79	12.6%	327.38	33.80	11.5%
	70	314.68	354.99	40.31	12.8%	399.78	44.79	12.6%	445.98	46.20	11.6%
Steamboat II - Residential (1)	3,844	4,420.60	4,574.36	153.76	3.5%	4,728.12	153.76	3.4%	4,843.44	115.32	2.4%

(1) Inflation adjustment to rate; not cost of service.

APPENDIX D:

Water Tap Fees

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
WATER RESOURCES PIF

FILE: PIF.xls
SCHEDULE: TF Calc
DATE: 08/12/16
RANGE: WR_PIF

Fish Creek Reservoir Enlargement Investments - Original Cost (1)		$7,496,284	
ENR-CCI Index 1996 Ratio to 2015 ENR Index		1.63	
Fish Creek Reservoir Enlargement Investments - Replacement cost.		$12,236,739	
Total Acre-Feet of Expansion (2)	2,280		
Unusable Acre-Feet (2)	1,230		
Net Acre-Feet (2)	1,050		
Acre-Feet per EQR (3)	0.5		
EQRs Served by Net Acre-Feet	2,100	2,100	
Value per EQR		$5,827	
Tap Fee		Per Fixture Unit (4)	Per EQR
Tap Fee per EQR based on no. of fixture units (4):	140.00	$41.62	$5,827
Current Water Resources PIF		41.02	
Difference		0.60	

(1) Costs related to Fish Creek Reservoir enlargement pool including engineering, legal and finance costs of expansion indexed in 1996 dollars.
(2) Expansion yeilded 2,280 total acre feet. 1,030 acre-feet is dedicated to a fisheries conservation pool and 200 acre-feet minimum in-stream flow yielding a net active storage of 1,050 acre-feet.
(3) Per City staff, 0.5 acre feet per EQR.
(4) Assumes an EQR value based on 140 fixture units as recommended in the April 12, 2000 Wright Water Engineers, Inc., memorandum to Jim Weber, PW Director, City of Steamboat Springs.

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
WATER TAP FEE CALCULATION

FILE:	PIF.xls
SCHEDULE:	TF Calc
DATE:	08/15/16
RANGE:	W_PIF3

Hybrid Calculation

Total System replacement cost			$47,981,391
Growth-Related CIP 2014 - 2023			8,935,985
Less: Developer contributed distribution system			($2,618,970)
Less: Water Rights / Raw Water Reservoir			($1,996,925)
Plus: NPV of borrowing cost - Existing Debt			962,157
Plus: NPV of borrowing cost - Future Debt			1,547,841
Total cost for PIF calculation			$54,811,479
Total City-owned peak day capacity (MGD) (1)	5.30		
Incremental City-owned peak day capacity (MGD) (1)	2.35		
Total City-owned peak day capacity (MGD)	7.65		
Estimated EQR peak day water use (gpd) (2)	600		
System EQR capacity	12,750		12,750
Value per EQR			$4,299
Tap Fee		Per Fixture Unit (3)	Per EQR
Tap Fee per EQR based on no. of fixture units (3):	140	$30.71	$4,299
Current Tap Fee		28.10	3,934
Difference - $		$2.61	$365
- %		9%	9%

(1) December 8, 2009 Draft Master Plan, City own's 60% of 7.5 mgd Fish Creek Filtration Plant and 0.8 mgd of the Yampa River Infiltration System. Yampa River Gallery Expansion of 0.85 mgd and 2.25 mgd (City portion) Fish Creek Filtration Plant Expansion for three filtration bays.
(2) December 8, 2009 Draft Master Plan, System Design Value is 600 gallons per day per Page II-7.
(3) Assumes an EQR value based on 140 fixture units as recommended in the April 12, 2000 Wright Water Engineers, Inc., memorandum to Jim Weber, PW Director, City of Steamboat Springs.

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - WATER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Water
DATE: 08/15/16
RANGE: WATER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST (1)	FUNCTION
11-14020	**LAND &IMPROVEMENTS**					
10-00-0001	WILLETT HEIGHTS RESERVOIR SITE	1962	$2,885		$2,885	2
	WELL FIELD DEVELOPMENT	1990	140,621		140,621	6
	WELL FIELD DEVELOPMENT	1990	5,000		5,000	6
1104-75015	LONG LAKE REHABILITATION	1997	1,018		1,018	2
1106-75015	LONG LAKE REHABILITATION	1998	20,672		20,672	2
1106-75015	LONG LAKE REHABILITATION	1999	227,014		227,014	2
1106-75015	LONG LAKE OUTLET-PROF. SVC.	2000	2,198		2,198	2
1106-75015	Long Lake Rehabilitation	2001	19,776		19,776	2
1106-75021	Fish Creek Reservoir Expansion payment	2001	175,000		175,000	6
1106-75025	Fish Creek Reservoir Easement	2001	94,515		94,515	6
1206-75021	Fish Creek Reservoir Expansion payment	2002	175,000		175,000	6
1206-75021	Fish Creek Reservoir Expan paymt (interest)	2003	6,789		6,789	6
1215-75021	Fish Creek Reservoir Expansion payment	2004	350,000		350,000	6
1215-75021	Fish Creek Reservoir Expansion payment	2005	175,000		175,000	6
1215-75021	Fish Creek Reservoir Expansion payment	2006	175,000		175,000	6
1215-75021	Fish Creek Reservoir Expansion payment	2007	175,000		175,000	6
1215-75021	Fish Creek Reservoir Expansion payment	2008	175,000		175,000	6
1215-75021	Fish Creek Reservoir Expansion payment	2009	175,000		175,000	6
1034	Fish Creek Reservoir Expansion payment	2010	175,000		175,000	6
	TOTAL LAND & IMPROVEMENTS		$2,270,488		$2,270,488	

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - WATER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Water
DATE: 08/15/16
RANGE: WATER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST (1)	FUNCTION
11-14030	**BUILDINGS**					
30-00-0001	WATER PLANT AND RESERVOIR	1973	$286,800	1556	$1,304,077	3
30-00-0002	GOULD DP UNIT	1980	700	2947	1,680	5
30-00-0003	AUXILLARY PUMP	1980	5,692	2947	13,665	4
30-00-0004	WATER PLANT DESIGN	1982	203,050	3446	416,911	3
XXXXXX	84 WATER PLANT CONSTRUCTION	1984	3,282,983	3106	7,476,905	3
XXXXXX	WILLET HGTS MG WATER TANK	1984	55,778	3106	127,033	1
XXXXXX	WILLETT HGTS MG WATER TANK	1985	586,609	3316	1,251,469	1
XXXXXX	85 PLANT CONSTRUCTION	1985	92,548	3316	197,442	3
XXXXXX	86 PLANT CONSTRUCTION	1986	20,620	3503	41,640	3
XXXXXX	87 PLANT CONSTRUCTION	1987	8,568	3507	17,284	3
XXXXXX	LONG LAKE DAM	1988	10,998	3538	21,991	2
XXXXXX	88 CONSTRUCTION	1988	24,817	3538	49,622	3
XXXXXX	1 MG WATER TANK	1991	29,054	3715	55,326	1
	1 MG WATER TANK (FRM CIP)	1990	13,478	3668	25,995	1
1104-75014	1997 YAMPA WELLS FILTRATION	1997	41,068	4329	67,113	3
1106-75014	1998 YAMPA WELLS FILTRATION	1998	8,932	4470	14,137	3
1106-75013	SKYLINE TANK	1998	1,251	4470	1,979	1
1106-74012	2001 FISH CREEK WATER FILTRATION PLNT	2001	573,576	4663	870,233	3
1206-74012	2002 FISH CREEK WATER FILTRATION PLNT	2002	1,270	4744	1,894	3
1206-75014	2002 YAMPA WELLS FILTRATION	2002	326,214	4744	486,461	3
Const in Prog	WEST STMBT WATER TANK (50 W/ STMBT II)	2002	135,126	4744	201,505	1
1206-75017	WEST STMBT WATER TANK (50 W/ STMBT II)	2003	18,027	5015	25,429	1
1215-75019	LIQUID CHLORINE CONVERSION	2004	86,214	5450	111,911	3
1106-75018	SCADA SYSTEM UPGRADE	2001	144,589	4663	219,371	5
1206-75018	SCADA SYSTEM UPGRADE	2002	3,694	4744	5,509	5
1106-75013	SKYLINE TANK	2001	31,699	4663	48,094	1
1215-75013	SKYLINE TANK	2003	652,729	5015	920,751	1
1215-74007	FILTRATION PLANT IMPROVEMENTS	2007	718,528	5748	884,455	3
1215-74007	SECURITY SYSTEM AT FILTRATION PLANT	2008	95,098	5865	114,725	3
1215-75030	WILLET HEIGHTS INTERCONNECTION METER	2008	193,200	5865	233,074	4
1215-75032	SKYLINE TANK INTERCONNECTION METER	2009	170,528	5929	203,498	4
1215-75033	FISH CK RESERVOIR & LONG LAKE SCADA	2009	77,154	5929	92,071	5
1039	Public Works Shop Expansion	2010	690,999	6397	754,496	5
	TOTAL BUILDINGS		$8,591,591		$16,257,746	

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - WATER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Water
DATE: 08/15/16
RANGE: WATER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST (1)	FUNCTION
11-14032	**TRANSMISSION LINES**					
50-00-0001		1962	$262,166	800	$2,319,351	4
50-00-0002		1979	4,322	2739	11,163	4
50-00-0003		1971	46,839	1352	245,187	4
50-00-0004		1972	22,362	1475	107,265	4
50-00-0005		1974	59,414	1670	251,687	4
50-00-0006		1975	693,827	1886	2,602,442	4
50-00-0007		1976	8,097	2124	26,976	4
50-00-0008		1977	114,659	2353	344,743	4
50-00-0009		1979	443,127	2739	1,144,542	4
50-00-0010		1979	9,593	2739	24,778	4
50-00-0011		1979	37,835	2739	97,722	4
50-00-0012	DEERFOOT	1980	24,723	2947	59,350	4
50-00-0013	FISH CREEK FLOWLINE	1980	453	2947	1,087	4
50-00-0014	FAIRVIEW WATER LINE	1980	23,348	2947	56,050	4
50-00-0015	DREAM ISLAND WATER LINE	1981	67,053	3201	148,220	4
50-00-0016	LINCOLN PARK WATER LINE	1981	57,773	3201	127,708	4
50-00-0017	ROUTT MEMORIAL HOSP-PARK AVE	1982	4,783	3446	9,821	4
50-00-0018	BOULEVARD WATER LINE	1982	10,151	3446	20,842	4
50-00-0019	LINCOLN PARK-DREAM ISLAND	1982	5,973	3446	12,264	4
50-00-0020	TRANSIT FACILITY WATER MAIN	1982	97,675	3446	200,549	4
50-00-0021	PARK AVE WATER MAIN	1983	147,913	3690	283,577	4
XXXXXXX	84 WATERLINE IMPROVEMENTS	1984	116,048	3106	264,297	4
XXXXXXX	85 WATERLINE IMPROVEMENTS	1985	82,855	3316	176,763	4
XXXXXXX	86 WATERLINE IMPROVEMENTS	1986	173,121	3503	349,607	4
XXXXXXX	87 WATERLINE IMPROVEMENTS	1987	137,301	3507	276,989	4
XXXXXXX	88 WATERLINE IMPROVEMENTS	1988	266,044	3538	531,964	4
XXXXXXX	89 WATERLINE IMPROVEMENTS	1989	256,448	3642	498,199	4
XXXXXXX	90 WATERLINE IMPROVEMENTS	1990	222,395	3668	428,933	4
XXXXXXX	WATER METERS (WERE CIP)	1990	205,146	3668	395,664	4
XXXXXXX	90 ADDITIONS-WATER METERS	1990	55,981	3668	107,971	4
XXXXXXX	91 ADDITIONS-WATER METERS	1991	3,572	3715	6,802	4
XXXXXXX	91 FAIRVIEW (COMPLETED OCT. 1990)	1991	564,495	3715	1,074,928	4
XXXXXXX	91 RIVERSIDE RESIDENTIAL (COMPLETED JUNE '9	1991	69,205	3715	131,782	4
XXXXXXX	91 RIVERSIDE COMMERCIAL (COMPLETED OCT. '9	1991	193,674	3715	368,799	4
XXXXXXX	91 WEST STEAMBOAT ADDITION	1991	138,529	3715	263,791	4
XXXXXXX	WELLFIELD CONSTRUCTION	1990	24,669	3668	47,578	4
XXXXXXX	WELLFIELD CONSTRUCTION	1991	617,516	3715	1,175,891	4
XXXXXXX	WELLFIELD CONSTRUCTION	1992	459,978	3834	848,875	4
XXXXXXX	7TH STREET WATERLINE REPLACE	1993	136,211	4012	240,197	4
XXXXXXX	93 WEST STEAMBOAT IMPROVEMTS	1993	73,260	4012	129,188	4
XXXXXXX	93 STEAMBOAT II WATER LINE	1993	110,220	4012	194,363	4
XXXXXXX	94 STEAMBOAT II WATER LINE	1994	14,825	4009	26,163	4

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - WATER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Water
DATE: 08/15/16
RANGE: WATER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST (1)	FUNCTION
XXXXXXX	RIVER ROAD WATER LINE	1994	83,258	4009	146,938	4
XXXXXXX	RIVER ROAD WATER LINE	1995	98,842	4088	171,067	4
XXXXXXX	TWENTY MILE WATER LINE(1994 from CIP)	1995	66,533	4088	115,149	4
XXXXXXX	TWENTY MILE WATER LINE	1995	72,565	4088	125,589	4
XXXXXXX	BOGGS WATERLINE	1995	2,882	4088	4,988	4
XXXXXXX	SEVENTH STREET OVERLAY	1995	8,884	4088	15,375	4
XXXXXXX	HILLTOP WATER MAIN EXT.	1995	46,319	4088	80,166	4
	1996 WATER MAIN IMPROVEMENTS	1996	112,399	4334	183,477	4
1104-75011	1997 WATER MAIN EXTENSIONS	1997	52,701	4329	86,124	4
1104-75011	MISSOURI WATER MAIN	1997	121,633	4329	198,772	4
1106-75011	1998 WATER MAIN IMPROVEMENTS	1998	206,468	4470	326,760	4
1106-75011	1999 WATER MAIN IMPROVEMENTS	1999	206,473	4498	324,727	4
1106-75011	2000 WATER MAIN REPLACEMENT PROJECT	2000	110,535	4767	164,057	4
1106-75011	2001 WATER MAIN IMPROVEMENTS	2001	106,897	4663	162,186	4
1206-75011	2002 WATER MAIN IMPROVEMENTS	2002	151,665	4744	226,168	4
1215-75011	2006 WATER MAIN IMPROVEMENTS	2006	364,243	5612	459,205	4
1215-75011	WEST STMBT WATER MAIN REPLACEMENT	2008	1,520,185	5865	1,833,930	4
1215-75011	INSERTION VALVE PROJECT	2008	265,951	5865	320,839	4
1215-75011	AIRPORT MEADOWS WATER MAIN	2008	176,738	5865	213,214	4
DC	EMERALD VILLAGE WATER MAIN	2008	86,800	5865	104,714	4
DC	BETTERVIEW BUSINESS PARK WATER MAIN	2008	319,500	5865	385,440	4
1215-75011	RIVERWALK WATER MAIN	2008	109,786	5865	132,444	4
1215-75011	YAHMONITE BRIDGE WATER LINE	2009	208,579	5929	248,905	4
DC	ANGLERS RETREAT SUBDIVISION WATER LINE	2009	119,759	5929	142,914	4
DC	COPPER RIDGE BUSINESS PARK WATER LINE	2009	272,290	5929	324,935	4
DC	SBL WAREHOUSE WATER LINE	2009	29,200	5929	34,846	4
DC	FOX CREEK VILLAGE WATER LINE	2009	25,000	5929	29,834	4
DC	HAMPTON INN WATER LINE	2009	20,000	5929	23,867	4
DC	WESCOIN MEADOWS WATER LINE	2009	11,300	5929	13,485	4
DC	WEST END TOWNHOMES WATER LINE	2009	42,876	5929	51,165	4
1040	Victory Hwy Water Main Ext	2010	155,618	6397	172,104	4
1070	Copper Mtn Estates Water Main	2011	493,516	6887	507,012	4
DC	Hilltop Homes Water Main	2011	36,200	6887	37,190	4
DC	Captain Jack Subdivision Water	2011	42,493	6887	43,655	4
DC	Boulder Ridge Water Main	2011	318,295	6887	326,999	4
DC	Worldwest Subdiv Water Main	2011	19,300	6887	19,828	4
DC	Rocky Peak Village Water Main	2011	226,500	6887	232,694	4
DC	Entress Subdivion Water Main	2011	105,200	6887	108,077	4
1105	Airport Water Reduncancy 2011	2012	394,555	6979	399,960	4
1106	Fairview Distribution System Exp	2012	304,416	6979	308,587	4
DC	Eco Corral Townhomes Subdivision	2012	329,130	6979	333,639	4
DC	Riverwalk	2012	400,206	6979	405,688	4
	TOTAL TRANSMISSION LINES		$13,909,264		$25,180,781	

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - WATER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Water
DATE: 08/15/16
RANGE: WATER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST (1)	FUNCTION
	FURNITURE AND EQUIPMENT					
1104-00302	MUELLER D-5 DRILLING MACHINE	1979	$6,111	2739	$15,783	5
1104-01822	SHORING SHIELD, SPEED SHORE	1992	5,825	3834	10,750	5
1104-03445	SULLAIR COMPRESSOR 185 DPS (70%)	2004	8,318	5450	10,797	5
1104-03945	FOLDER/INSERTER MACHINE, SPLIT W/ SEWER	2008	2,648	5865	3,195	5
1104-03986	HAND HELD METER READER, SPLIT W/ SEWER	2009	3,619	5929	4,319	5
1104-03729	UTILITY VACUMN W/ TRAILER, RING-O-MATIC	2007	24,777	5748	30,499	5
	TOTAL FURNITURE AND EQUIPMENT		$51,298		$75,343	
	CONSTRUCTION IN PROGRESS					
	Pine Stree Water Main Replacement	2012	$412,436	6982	$417,946	4
	Bob Adams Drive Water Main Replacement	2012	438,336	6982	444,192	4
	13th Street/Depot Water Line	2012	1,599,543	6982	1,620,912	4
	Elk River Rd Water Main Replacement	2012	752,934	6982	762,993	4
	Meter Conversion	2012	534,887	6982	542,033	5
	North Park Rd/Woods Dr Main Replacement	2015	405,509	7015	408,957	4
	TOTAL CONSTRUCTION IN PROGRESS		$4,143,645		$3,788,076	
	TOTAL		$28,966,285		$47,572,434	

		Original Cost	RCN
Storage	1	$1,523,750	$2,657,581
Source of Supply	2	284,561	295,554
Treatment	3	5,770,286	12,054,810
Transmission and Distribution	4	17,887,442	29,286,018
Meters and Services	5	1,503,320	1,690,503
Water Rights	6	1,996,925	1,996,925
	Total	**$28,966,285**	**$47,981,391**

DEVELOPER CONTRIBUTIONS	2,404,049	2,618,970
WATER RIGHTS / RAW WATER RESERVOIR	1,996,925	1,996,925
TOTAL EXCLUDING DEV. CONTRIB.	**$26,562,236**	**$44,953,464**

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
WATER CIP - 2016 THROUGH 2025 - 2016 $'s

FILE: PIF.xls
SCHEDULE: TF Calc
DATE: 08/15/16
RANGE: W_CIP

Line No.	DESCRIPTION	FUNCTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	2016 -2025	2026 - 2025 Total	2026 - 2025 Total	2016 -2035 Growth Total
			Projected														
	Total CIP																
1	Water Main Replacement	4	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	0%	$10,000,000		$10,000,000	$0
2	Water Main Connections	4	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	50%	4,000,000		4,000,000	2,000,000
3	West Steamboat Water Tank	1	0	4,153,550	0	0	0	0	0	0	0	0	70%	4,153,550		4,153,550	2,907,485
4	Major Dam Maintenance	2	0	0	0	0	0	0	100,000	0	0	0	0%	100,000		100,000	0
5	Booster Station	4		0	60,000	340,000	0	0	0	0	0	0	100%	400,000		400,000	400,000
6	Fish Creek Filtration Plant Capacity Expansion	3	90,000	0	0	900,000	700,000	0	0	0	0	0	100%	1,690,000		1,690,000	1,690,000
7	Wellfield Treatment Plant Capacity Expansion	3	6,000	300,000	0	0	0	0	0	0	0	0	100%	306,000		306,000	306,000
8	Wellfield Treatment Plant Compliance Upgrade	3	36,000	450,000	0	0	0	0	0	0	0	0	0%	486,000		486,000	0
9	Wellfield Capacity Expansion	2	95,000	0	750,000	0	750,000	0	0	0	0	0	100%	1,595,000		1,595,000	1,595,000
10	Rate Study Update	5	0	0	0	50,000	0	0	50,000	0	0	50,000	25%	150,000		150,000	37,500
	Total CIP		**$1,627,000**	**$6,303,550**	**$2,210,000**	**$2,690,000**	**$2,850,000**	**$1,400,000**	**$1,550,000**	**$1,400,000**	**$1,400,000**	**$1,450,000**		**$22,880,550**	**$0**	**$22,880,550**	**$8,935,985**

Bond Amortization Schedule
2011 CWRPDA Series B LOAN

Borrowing Rate	4.71%		Discount Rate
Years	20		4.71%
Avg. Annual Payment	$632,584		
Principal Amount	8,151,000		NPV of
Year of Issue	2011		Interest Payments
			$2,346,725

Fiscal Year	Principal	Interest	Total
2016	$313,500	$317,819	$631,319
2017	323,400	308,414	631,814
2018	336,600	295,478	632,078
2019	349,800	282,014	631,814
2020	369,600	264,524	634,124
2021	386,100	246,044	632,144
2022	405,900	226,739	632,639
2023	422,400	210,503	632,903
2024	438,900	193,607	632,507
2025	455,400	175,503	630,903
2026	475,200	156,717	631,917
2027	495,000	137,115	632,115
2028	521,400	112,365	633,765
2029	547,800	86,295	634,095
2030	574,200	58,905	633,105
2031	603,900	30,195	634,095
Total	**$7,019,100**	**$3,102,237**	**$10,121,337**

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
Water System – NPV of Borrowing Cost

FILE:	**PIF.xls**
SCHEDULE:	**WATER NPV**
DATE:	**8/17/2016**
RANGE:	**W_NPV**

Water Bond Issues

	Principal	% Growth	NPV of Interest	Interest
2011 CWRPDA Series B LOAN	8,151,000	41%	962,157	1,271,917
Total	$8,151,000		$962,157	$1,271,917

Bond Amortization Schedule
2017

Borrowing Rate	5.00%		Discount Rate
Years	20		5.00%
Annual Payment	$94,847		
Principal Amount	$1,182,000		NPV of
Year of Issue	2017		Interest Payments
			$465,498

Fiscal Year	EOY Principal Balance	Principal	Interest	Total
2016	$0	$0	$0	$0
2017	1,164,127	17,873	29,550	47,423
2018	1,127,486	36,640	58,206	94,847
2019	1,089,014	38,472	56,374	94,847
2020	1,048,618	40,396	54,451	94,847
2021	1,006,202	42,416	52,431	94,847
2022	961,665	44,537	50,310	94,847
2023	914,902	46,763	48,083	94,847
2024	865,800	49,102	45,745	94,847
2025	814,243	51,557	43,290	94,847
2026	760,109	54,135	40,712	94,847
2027	703,268	56,841	38,005	94,847
2028	643,584	59,683	35,163	94,847
2029	580,917	62,668	32,179	94,847
2030	515,116	65,801	29,046	94,847
2031	446,025	69,091	25,756	94,847
2032	373,479	72,546	22,301	94,847
2033	297,306	76,173	18,674	94,847
2034	217,325	79,981	14,865	94,847
2035	133,345	83,980	10,866	94,847
2036	45,165	88,180	6,667	94,847
2037	0	46,294	1,129	47,423
Total		**1,183,129**	**713,806**	**1,896,935**

Bond Amortization Schedule
2019

Borrowing Rate	5.00%		Discount Rate
Years	20		5.00%
Annual Payment	$243,135		
Principal Amount	$3,030,000		NPV of
Year of Issue	2017		Interest Payments
			$1,082,343

Fiscal Year	EOY Principal Balance	Principal	Interest	Total
2016	$0	$0	$0	$0
2017	0	0	0	0
2018	0	0	0	0
2019	2,984,183	45,818	75,750	121,568
2020	2,890,257	93,926	149,209	243,135
2021	2,791,634	98,622	144,513	243,135
2022	2,688,081	103,553	139,582	243,135
2023	2,579,350	108,731	134,404	243,135
2024	2,465,183	114,167	128,968	243,135
2025	2,345,307	119,876	123,259	243,135
2026	2,219,437	125,870	117,265	243,135
2027	2,087,274	132,163	110,972	243,135
2028	1,948,503	138,771	104,364	243,135
2029	1,802,793	145,710	97,425	243,135
2030	1,649,798	152,995	90,140	243,135
2031	1,489,152	160,645	82,490	243,135
2032	1,320,475	168,677	74,458	243,135
2033	1,143,364	177,111	66,024	243,135
2034	957,397	185,967	57,168	243,135
2035	762,132	195,265	47,870	243,135
2036	557,103	205,028	38,107	243,135
2037	341,824	215,280	27,855	243,135
2038	115,780	226,044	17,091	243,135
2039	0	118,673	2,894	121,568
Total		**3,032,893**	**1,829,807**	**4,862,700**

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
Water System – NPV of Borrowing Cost

FILE: PIF.xls
SCHEDULE: WATER NPV
DATE: 8/17/2016
RANGE: W_NPV

Water Bond Issues

	Principal	NPV of Interest
2017	$1,182,000	$465,498
2019	3,030,000	1,082,343
2020	0	0
2021	0	0
2023	0	0
Total	$4,212,000	$1,547,841

Denver	
Year	ENR-CCI
1960	756
1961	777
1962	800
1963	828
1964	859
1965	880
1966	923
1967	991
1968	1,057
1969	1,127
1970	1,199
1971	1,352
1972	1,475
1973	1,556
1974	1,670
1975	1,886
1976	2,124
1977	2,353
1978	2,565
1979	2,739
1980	2,947
1981	3,201
1982	3,446
1983	3,690
1984	3,106
1985	3,316
1986	3,503
1987	3,507
1988	3,538
1989	3,642
1990	3,668
1991	3,715
1992	3,834
1993	4,012
1994	4,009
1995	4,088
1996	4,334
1997	4,329
1998	4,470
1999	4,498
2000	4,767
2001	4,663
2002	4,744
2003	5,015
2004	5,450
2005	5,480
2006	5,612
2007	5,748
2008	5,865
2009	5,929
2010	6,401
2011	6,759
2012	6,982
2013	7,015
2014	7,036
2015	7,075

APPENDIX E:

Wastewater Financial Plan

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DECISION CRITERIA - WASTEWATER

FILE: Stmboat_WW
SCHEDULE: Dec_Crit
DATE: 08/18/16
RANGE: DECCRIT1

Line No.	DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
							Projected					
1	**Rate Revenue Increase**		0.0%	8.0%	8.0%	8.0%	7.0%	7.0%	7.0%	2.0%	2.0%	2.0%
2	**Effective Month of Rate Increase**		1	1	1	1	1	1	1	1	1	1
	(effective 1st day of month: 1=Jan 12=Dec)											
3	Typical Residential Bill		$33.10	$35.75	$38.61	$41.70	$44.62	$47.74	$51.08	$52.10	$53.14	$54.21
4	Wastewater Treatment Tap Fee Increase		0.0%	6.8%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
5	Wastewater Collection Tap Fee Increase		0.0%	42.6%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
6	**Effective Month of Fee Increase**		1	1	1	1	1	1	1	1	1	1
	(effective 1st day of month: 1=Jan 12=Dec)											
7	Wastewater Treatment Tap Fee per Fixture Unit		$36.65	$39.14	$39.92	$40.72	$41.54	$42.37	$43.21	$44.08	$44.96	$45.86
8	Wastewater Collection Fee per Fixture Unit		$5.00	$7.13	$7.27	$7.42	$7.57	$7.72	$7.87	$8.03	$8.19	$8.35
	Bond/Loan Proceeds											
9	Operations Subfund	Revenue Bonds	$0	$2,500,000	$0	$0	$0	$0	$19,500,000	$0	$0	$0
10	Tap Fee Subfund	Revenue Bonds	0	3,100,000	0	0	0	0	0	0	0	0
11	Total		$0	$5,600,000	$0	$0	$0	$0	$19,500,000	$0	$0	$0
	Loan (to) Tap Fee Subfund from Operations Subfund											
12	Annual		($1,000,000)	$0	($770,000)	($340,000)	($200,000)	($80,000)	$330,000	$370,000	$380,000	$370,000
13	Payments		-	-	-	-	-	-	-	-	-	-
14	Cumulative Loan Balance		$1,000,000	$1,020,000	$1,810,400	$2,186,608	$2,430,340	$2,558,947	$2,280,126	$1,955,728	$1,614,843	$1,277,140
15	(Principal & Accrued Int)											
	Cash Balances - End of Year											
16	Operations Subfund		$4,996,744	$6,170,659	$4,362,992	$4,443,350	$4,538,220	$5,381,584	$1,121,005	$1,036,770	$981,578	$888,396
17	Tap Fee Subfund		(967)	159,787	58,741	78,729	103,096	117,770	147,688	167,130	187,074	216,516
18	Total Fund		$4,995,778	$6,330,445	$4,421,733	$4,522,079	$4,641,316	$5,499,353	$1,268,693	$1,203,900	$1,168,652	$1,104,912
19	**Debt Service Coverage Including Dev. Fees [1]**		2.18	2.05	1.92	2.11	2.73	3.00	2.52	1.66	1.69	1.73
20	**Debt Service Coverage Excluding Dev. Fees [1]**		1.62	1.51	1.48	1.66	2.19	2.44	2.09	1.37	1.40	1.43
	Cash Reserve Balance Requirements [2]											
21	Operations Subfund		$876,134	$910,649	$929,661	$948,978	$968,985	$989,707	$1,011,169	$1,033,399	$1,056,425	$1,080,276
22	Tap Fee Subfund		122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435
23	Total Fund		$998,569	$1,033,084	$1,052,096	$1,071,413	$1,091,420	$1,112,142	$1,133,604	$1,155,834	$1,178,860	$1,202,711
24	**Cash Reserve Ratio [3] - Operations Subfund**		250.6%	289.4%	197.6%	194.4%	191.8%	219.8%	44.2%	39.5%	36.1%	31.6%
25	**Cash Reserve Ratio [3] - Total Fund**		250.5%	296.9%	200.2%	197.8%	196.2%	224.6%	50.1%	45.9%	43.0%	39.3%
26	**Cash Reserve Ratio [4] - Operations Subfund**		231.6%	271.7%	180.5%	177.9%	175.9%	204.4%	29.3%	25.1%	22.2%	18.2%
27	**Cash Reserve Ratio [4] - Total Fund**		225.4%	273.4%	177.6%	176.0%	175.1%	204.2%	30.3%	26.8%	24.6%	21.5%
28	Cumulative Debt Issued		$0	$5,600,000	$5,600,000	$5,600,000	$5,600,000	$5,600,000	$25,100,000	$25,100,000	$25,100,000	$25,100,000
29	Cumulative % of CIP Funded by Debt		0.0%	83.4%	56.5%	49.4%	42.3%	38.0%	64.0%	61.5%	59.2%	56.8%
	Funded CIP - Inflated $											
30	Operations Subfund		$1,391,576	$2,545,878	$2,629,235	$1,418,567	$1,812,642	$1,479,175	$24,457,785	$1,594,060	$1,641,882	$1,738,642
31	Tap Fee Subfund		240,000	2,540,000	556,200	13,261	96,160	0	14,491	0	0	15,835
32	Total Annual CIP		1,631,576	5,085,878	3,185,435	1,431,828	1,908,802	1,479,175	24,472,276	1,594,060	1,641,882	1,754,477
33	Cumulative CIP Amount		$1,631,576	$6,717,454	$9,902,889	$11,334,716	$13,243,518	$14,722,693	$39,194,969	$40,789,029	$42,430,910	$44,185,387

[1] Target debt service coverage including development fees: 1.5 Legal requirement of 1.1.
[2] Target ending cash balance for capital project reserve at $500,000 allocated to operations and tap fee sub funds based on CIP. Operations cash reserve ratio of 20% of annual O&M expenditures also included.
[3] Target ending cash balance as a percent of O&M expenditures: 20%.
[4] Excludes Capital Reserve Cash balance target. Target ending cash balance as a percent of O&M expenditures: 20% after reducing fund balance for capital reserve target of $500,000.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - TOTAL FUND

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/18/16
RANGE: CF_TOTAL

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projected									
	Operating Revenues										
1	Sewer Charges	$3,421,451	$3,725,658	$4,056,654	$4,416,751	$4,763,979	$5,138,377	$5,541,633	$5,697,120	$5,856,399	$6,019,764
2	Meter Sales	7,000	7,035	7,088	7,141	7,212	7,284	7,394	7,505	7,617	7,731
3	Interest Income	0	0	0	0	0	0	0	0	0	0
4	Interest Income Investments	0	0	0	0	0	0	0	0	0	0
5	Charges for Services	68,000	68,340	68,853	69,369	70,063	70,763	71,825	72,902	73,996	75,106
6	Tap Fees	537,699	643,063	610,185	619,894	633,762	647,872	657,843	672,299	682,378	697,172
7	Interest	60,951	99,935	126,609	88,435	90,442	92,826	109,987	25,374	24,078	23,373
8	**Total Operating Revenues**	4,095,101	4,544,031	4,869,388	5,201,589	5,565,458	5,957,123	6,388,681	6,475,200	6,644,468	6,823,146
	Operating Expenditures										
9	Operating	1,994,275	2,132,336	2,208,385	2,285,653	2,365,680	2,448,566	2,534,416	2,623,336	2,715,440	2,810,843
10	**Total Operating Expenditures**	1,994,275	2,132,336	2,208,385	2,285,653	2,365,680	2,448,566	2,534,416	2,623,336	2,715,440	2,810,843
11	**Net Income Available for Debt Service**	2,100,826	2,411,695	2,661,003	2,915,936	3,199,778	3,508,557	3,854,266	3,851,863	3,929,027	4,012,303
	Debt Service										
12	Debt Service Payments - Existing	964,588	966,881	968,103	967,584	755,561	755,166	325,905	326,041	325,837	325,010
13	Debt Service Payments - New	0	208,089	416,178	416,178	416,178	416,178	1,206,367	1,996,556	1,996,556	1,996,556
14	**Total Debt Service**	$964,588	$1,174,970	$1,384,282	$1,383,762	$1,171,739	$1,171,344	$1,532,272	$2,322,597	$2,322,393	$2,321,566
15	***DSC Ratio (1)***	***2.18***	***2.05***	***1.92***	***2.11***	***2.73***	***3.00***	***2.52***	***1.66***	***1.69***	***1.73***
16	**Income Available After Debt Service**	$1,136,238	$1,236,724	$1,276,722	$1,532,174	$2,028,039	$2,337,213	$2,321,993	$1,529,266	$1,606,634	$1,690,736
	Other Cash Inflows/(Outflows)										
17	Bond/Loan Proceeds	0	5,600,000	0	0	0	0	19,500,000	0	0	0
18	Capital Improvements	(1,631,576)	(5,085,878)	(3,185,435)	(1,431,828)	(1,908,802)	(1,479,175)	(24,472,276)	(1,594,060)	(1,641,882)	(1,754,477)
19	Debt Service Reserve Deposit (New Debt)	0	(416,178)	0	0	0	0	(1,580,378)	0	0	0
20	Grants	0	0	0	0	0	0	0	0	0	0
21	Additional Cash Inflow / (Outflow)	0	0	0	0	0	0	0	0	0	0
22	Transfer to General Fund	0	0	0	0	0	0	0	0	0	0
23	Loan (To) Tap Fee Subfund	0	0	0	0	0	0	0	0	0	0
24	Proceeds from CWRPDA Loan	0	0	0	0	0	0	0	0	0	0
25	**Total Other Cash Inflows/(Outflows)**	(1,631,576)	97,944	(3,185,435)	(1,431,828)	(1,908,802)	(1,479,175)	(6,552,653)	(1,594,060)	(1,641,882)	(1,754,477)
26	**Increase /(Decrease) in Cash Balance**	(495,338)	1,334,668	(1,908,713)	100,346	119,237	858,038	(4,230,660)	(64,794)	(35,247)	(63,740)
27	**Beginning of Year Cash Balance**	5,491,115	4,995,778	6,330,445	4,421,733	4,522,079	4,641,316	5,499,353	1,268,693	1,203,900	1,168,652
28	**End of Year Cash Balance**	4,995,778	6,330,445	4,421,733	4,522,079	4,641,316	5,499,353	1,268,693	1,203,900	1,168,652	1,104,912
29	**Capital Project Fund Reserve (2)**	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
30	**End of Year Cash Balance - Less Capital Reserve**	$4,495,778	$5,830,445	$3,921,733	$4,022,079	$4,141,316	$4,999,353	$768,693	$703,900	$668,652	$604,912
31	**Cash Reserve Ratio Before Capital Project Reserve (3)**	250.5%	296.9%	200.2%	197.8%	196.2%	224.6%	50.1%	45.9%	43.0%	39.3%
32	**Cash Reserve Ratio After Capital Project Reserve (4)**	225.4%	273.4%	177.6%	176.0%	175.1%	204.2%	30.3%	26.8%	24.6%	21.5%

(1) Target debt service coverage: 1.5. Legal requirement of 1.1.
(2) Target ending cash balance for capital project reserve at $500,000 allocated to operations and tap fee sub funds based on CIP. Operations cash reserve ratio of 20% of annual O&M expenditures also included.
(3) Target ending cash balance as a percent of O&M expenditures: 20%.
(4) Excludes Capital project fund reserve. Target ending cash balance as a percent of O&M expenditures: 20%.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - OPERATIONS SUBFUND

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/18/16
RANGE: CF_OPS

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projected									
	Operating Revenues										
1	Sewer Charges	$3,421,451	$3,725,658	$4,056,654	$4,416,751	$4,763,979	$5,138,377	$5,541,633	$5,697,120	$5,856,399	$6,019,764
2	Meter Sales	7,000	7,035	7,088	7,141	7,212	7,284	7,394	7,505	7,617	7,731
3	Interest Income	0	0	0	0	0	0	0	0	0	0
4	Interest Income Investments	0	0	0	0	0	0	0	0	0	0
5	Charges for Services	68,000	68,340	68,853	69,369	70,063	70,763	71,825	72,902	73,996	75,106
6	Interest	60,951	99,935	123,413	87,260	88,867	90,764	107,632	22,420	20,735	19,632
7	**Total Operating Revenues**	3,557,402	3,900,968	4,256,007	4,580,520	4,930,121	5,307,189	5,728,483	5,799,947	5,958,746	6,122,233
	Operating Expenditures										
8	Operating	1,994,275	2,132,336	2,208,385	2,285,653	2,365,680	2,448,566	2,534,416	2,623,336	2,715,440	2,810,843
9	**Total Operating Expenditures**	1,994,275	2,132,336	2,208,385	2,285,653	2,365,680	2,448,566	2,534,416	2,623,336	2,715,440	2,810,843
10	**Net Operating Income Avail. for Debt Service**	1,563,127	1,768,632	2,047,623	2,294,867	2,564,441	2,858,623	3,194,068	3,176,611	3,243,306	3,311,390
	Debt Service										
11	Debt Service Payments - Existing	269,937	270,148	270,261	270,148	271,136	270,289	270,501	270,614	270,445	269,759
12	Debt Service Payments - New	0	92,897	185,794	185,794	185,794	185,794	975,983	1,766,172	1,766,172	1,766,172
13	**Total Debt Service**	$269,937	$363,045	$456,055	$455,942	$456,930	$456,083	$1,246,484	$2,036,786	$2,036,616	$2,035,930
14	***DSC Ratio (1)***	***5.79***	***4.87***	***4.49***	***5.03***	***5.61***	***6.27***	***2.56***	***1.56***	***1.59***	***1.63***
15	**Income Available After Debt Service**	$1,293,190	$1,405,586	$1,591,567	$1,838,925	$2,107,511	$2,402,539	$1,947,584	$1,139,825	$1,206,690	$1,275,460
	Other Cash Inflows/(Outflows)										
16	Bond / Loan Proceeds - Non Growth	0	2,500,000	0	0	0	0	19,500,000	0	0	0
17	Capital Improvements - Non-Growth	(1,391,576)	(2,545,878)	(2,629,235)	(1,418,567)	(1,812,642)	(1,479,175)	(24,457,785)	(1,594,060)	(1,641,882)	(1,738,642)
18	Debt Service Reserve Deposit (New Debt)	0	(185,794)	0	0	0	0	(1,580,378)	0	0	0
19	Grants	0	0	0	0	0	0	0	0	0	0
20	Additional Cash Inflow / (Outflow)	0	0	0	0	0	0	0	0	0	0
21	Transfer to General Fund	-	0	0	0	0	0	0	0	0	0
22	Loan (To) Tap Fee Subfund	(1,000,000)	0	(770,000)	(340,000)	(200,000)	(80,000)	330,000	370,000	380,000	370,000
23	Proceeds from CWRPDA Loan	0	0	0	0	0	0	0	0	0	0
24	**Total Other Cash Inflows/(Outflows)**	(2,391,576)	(231,672)	(3,399,235)	(1,758,567)	(2,012,642)	(1,559,175)	(6,208,163)	(1,224,060)	(1,261,882)	(1,368,642)
25	**Increase /(Decrease) in Cash Balance**	(1,098,386)	1,173,914	(1,807,667)	80,359	94,870	843,364	(4,260,579)	(84,235)	(55,192)	(93,182)
26	**Beginning of Year Cash Balance**	6,095,130	4,996,744	6,170,659	4,362,992	4,443,350	4,538,220	5,381,584	1,121,005	1,036,770	981,578
27	**End of Year Cash Balance**	4,996,744	6,170,659	4,362,992	4,443,350	4,538,220	5,381,584	1,121,005	1,036,770	981,578	888,396
28	**Capital Project Fund Reserve (2)**	377,565	377,565	377,565	377,565	377,565	377,565	377,565	377,565	377,565	377,565
29	**End of Year Cash Balance - Less Capital Reserve**	$4,619,179	$5,793,094	$3,985,427	$4,065,785	$4,160,655	$5,004,019	$743,440	$659,205	$604,013	$510,831
30	**Cash Reserve Ratio Before Capital Project Reserve (3)**	250.6%	289.4%	197.6%	194.4%	191.8%	219.8%	44.2%	39.5%	36.1%	31.6%
31	**Cash Reserve Ratio After Capital Project Reserve (4)**	231.6%	271.7%	180.5%	177.9%	175.9%	204.4%	29.3%	25.1%	22.2%	***18.2%***

(1) Target debt service coverage: 1.5. Legal requirement of 1.1.
(2) Target ending cash balance for capital project reserve at $500,000 allocated to operations and tap fee sub funds based on CIP. Operations cash reserve ratio of 20% of annual O&M expenditures also included.
(3) Target ending cash balance as a percent of O&M expenditures: 20%.
(4) Excludes Capital project fund reserve. Target ending cash balance as a percent of O&M expenditures: 20%.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CASH FLOW PROJECTION - TAP FEE SUBFUND

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/18/16
RANGE: CF_TF

Line No.	DESCRIPTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projected									
	Operating Revenues										
1	Tap Fees	$537,699	$643,063	$610,185	$619,894	$633,762	$647,872	$657,843	$672,299	$682,378	$697,172
2	Tap Fee - Lump Sum Payment	0	0	0	0	0	0	0	0	0	0
3	Interest	0	0	3,196	1,175	1,575	2,062	2,355	2,954	3,343	3,741
	Total Operating Revenues	537,699	643,063	613,381	621,069	635,337	649,934	660,198	675,253	685,721	700,913
4	**Net Operating Income Avail. for Debt Service**	537,699	643,063	613,381	621,069	635,337	649,934	660,198	675,253	685,721	700,913
5	**Debt Service**										
6	Debt Service Payments - Existing	694,651	696,733	697,842	697,435	484,425	484,876	55,404	55,427	55,392	55,252
7	Debt Service Payments - New	0	115,192	230,384	230,384	230,384	230,384	230,384	230,384	230,384	230,384
8	**Total Debt Service**	$694,651	$811,925	$928,227	$927,820	$714,809	$715,261	$285,788	$285,811	$285,777	$285,636
9	***DSC Ratio***	***0.77***	***0.79***	***0.66***	***0.67***	***0.89***	***0.91***	***2.31***	***2.36***	***2.40***	***2.45***
10	**Income Available After Debt Service**	($156,952)	($168,862)	($314,846)	($306,751)	($79,473)	($65,326)	$374,410	$389,441	$399,944	$415,277
11	**Other Cash Inflows/(Outflows)**										
12	Bond / Loan Proceeds - Growth	0	3,100,000	0	0	0	0	0	0	0	0
13	Capital Expenditures - Growth	(240,000)	(2,540,000)	(556,200)	(13,261)	(96,160)	0	(14,491)	0	0	(15,835)
14	Additional Cash Inflow / (Outflow)	0	0	0	0	0	0	0	0	0	0
15	Repayment of Loan from Tap Fee Subfund	0	0	0	0	0	0	0	0	0	0
16	Debt Service Reserve Deposit	0	(230,384)	0	0	0	0	0	0	0	0
17	Loan From / Repayment (To) Operations Subfund	1,000,000	0	770,000	340,000	200,000	80,000	(330,000)	(370,000)	(380,000)	(370,000)
18	Proceeds from CWRPDA Loan	0	0	0	0	0	0	0	0	0	0
19	**Total Other Cash Inflows/(Outflows)**	760,000	329,616	213,800	326,739	103,840	80,000	(344,491)	(370,000)	(380,000)	(385,835)
20	**Increase /(Decrease) in Cash Balance**	603,048	160,753	(101,046)	19,988	24,367	14,674	29,919	19,441	19,944	29,442
21	**Beginning of Year Cash Balance**	(604,015)	(967)	159,787	58,741	78,729	103,096	117,770	147,688	167,130	187,074
22	**End of Year Cash Balance**	(967)	159,787	58,741	78,729	103,096	117,770	147,688	167,130	187,074	216,516
23	**Cash Reserve - Capital Project Expense**	122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435	122,435
24	**End of Year Cash Balance - Less Capital Reserve**	($123,402)	$37,352	($63,694)	($43,706)	($19,339)	($4,665)	$25,253	$44,695	$64,639	$94,081

(2) Target ending cash balance of $500,000 for total wastewater fund. Target reflects tap fee sub fund portion of total wastewater fund capital.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED REVENUE - SEWER CHARGE

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/18/16
RANGE: PROJREV

Line No.	DESCRIPTION	Percent Increase	Month Effective (1)	*Projected* 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	Sewer Charges Under Existing Rates			$3,421,451	$3,449,683	$3,477,927	$3,506,159	$3,534,393	$3,562,765	$3,590,998	$3,619,367	$3,647,604	$3,675,838	3,506,159
2	2016	0%	1	0	0	0	0	0	0	0	0	0	0	
3	2017	8%	1		275,975	278,234	280,493	282,751	285,021	287,280	289,549	291,808	294,067	280,493
4	2018	8%	1			300,493	302,932	305,372	307,823	310,262	312,713	315,153	317,592	302,932
5	2019	8%	1				327,167	329,801	332,449	335,083	337,730	340,365	343,000	327,167
6	2020	7%	1					311,662	314,164	316,654	319,155	321,645	324,135	0
7	2021	7%	1						336,156	338,819	341,496	344,160	346,824	0
8	2022	7%	1							362,537	365,401	368,252	371,102	0
9	2023	2%	1								111,708	112,580	113,451	0
10	2024	2%	1									114,831	115,720	0
11	2025	2%	1										118,035	0
12	Subtotal Additional Revenue			0	275,975	578,727	910,592	1,229,586	1,575,612	1,950,635	2,077,753	2,208,795	2,343,926	910,592
13	**Subtotal Sewer Revenue**			3,421,451	3,725,658	4,056,654	4,416,751	4,763,979	5,138,377	5,541,633	5,697,120	5,856,399	6,019,764	4,416,751
14	**Revenue Increase Assuming 12 months of Effectiveness**			0	275,975	300,493	327,167	311,662	336,156	362,537	111,708	114,831	118,035	327,167
15	**Revenue Assuming 12 months of Effectiveness**			$3,421,451	$3,725,658	$4,056,654	$4,416,751	$4,763,979	$5,138,377	$5,541,633	$5,697,120	$5,856,399	$6,019,764	$4,416,751

(1) Effective 1st day of month: 1=Jan 12=Dec

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED TAP FEES

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/18/16
RANGE: CF_PROJTFREV

Line No.	DESCRIPTION	*Projected* 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Wastewater Treatment / Interceptor Fee per Fixture Unit	$36.65	$39.14	$39.92	$40.72	$41.54	$42.37	$43.21	$44.08	$44.96	$45.86
2	Annual Increase - $	0.00	2.66	0.80	0.81	0.83	0.85	0.86	0.88	0.90	0.92
3	Wastewater Treatment / Interceptor Fee per Unit	$36.65	$41.80	$40.72	$41.54	$42.37	$43.21	$44.08	$44.96	$45.86	$46.78
4	Units per ERU	130	130	130	130	130	130	130	130	130	130
5	Wastewater Treatment / Interceptor Fee per ERU	$4,765	$5,434	$5,294	$5,400	$5,508	$5,618	$5,730	$5,845	$5,962	$6,081
6	ERUs Added - All Customers	105	105	105	105	105	105	105	105	104	105
7	Wastewater Treatment / Interceptor Fee Revenue	$501,744	$569,972	$556,885	$565,566	$578,399	$591,465	$600,385	$613,782	$622,797	$636,520
8	Wastewater Colelction System Fee per Fixture Unit	$5.00	$7.13	$7.27	$7.42	$7.57	$7.72	$7.87	$8.03	$8.19	$8.35
9	Annual Increase - $	0.00	3.04	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.17
10	Wastewater Colelction System Fee per Fixture Unit	$5.00	$10.17	$7.42	$7.57	$7.72	$7.87	$8.03	$8.19	$8.35	$8.52
11	Units per ERU	130	130	130	130	130	130	130	130	130	130
12	Collection System Fee per ERU	$650.00	$1,321.76	$964.35	$983.63	$1,003.31	$1,023.37	$1,043.84	$1,064.72	$1,086.01	$1,107.73
13	ERUs Added - City Customers	55	55	55	55	55	55	55	55	55	55
14	Wastewater Treatment / Interceptor Fee Revenue	$35,955	$73,091	$53,300	$54,328	$55,363	$56,407	$57,458	$58,516	$59,581	$60,652
15	**Total Tap Fee Revenue**	$537,699	$643,063	$610,185	$619,894	$633,762	$647,872	$657,843	$672,299	$682,378	$697,172

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_WW
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	**Wastewater Treatment**											
2	**Personnel**											
3	Salaries	$282,897	$311,187	$323,634	$336,580	$350,043	$364,044	$378,606	$393,750	$409,500	$425,880	$336,580
4	Continuous Part-Time	54,063	56,226	58,475	60,814	63,246	65,776	68,407	71,143	73,989	76,949	60,814
5	Overtime	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,250
6	Premium Time	20,000	20,800	21,632	22,497	23,397	24,333	25,306	26,319	27,371	28,466	22,497
7	Standby Time	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,250
8	FICA Taxes	22,443	24,687	25,675	26,702	27,770	28,881	30,036	31,237	32,487	33,786	26,702
9	Medicare Taxes	5,261	5,787	6,019	6,259	6,510	6,770	7,041	7,323	7,615	7,920	6,259
10	Employee Retirement	21,770	23,947	24,905	25,901	26,937	28,015	29,135	30,301	31,513	32,773	25,901
11	Health Insurance	58,492	60,832	63,265	65,796	68,427	71,164	74,011	76,971	80,050	83,252	65,796
12	Life/LTD/AD&D/Pretax	3,033	3,336	3,470	3,609	3,753	3,903	4,059	4,221	4,390	4,566	3,609
13	Workers Compensation	6,123	6,368	6,623	6,888	7,163	7,450	7,748	8,057	8,380	8,715	6,888
14	Unemployment Insurance	1,089	1,198	1,246	1,296	1,347	1,401	1,457	1,516	1,576	1,639	1,296
15	Employee Wellness Program	1,880	1,955	2,033	2,115	2,199	2,287	2,379	2,474	2,573	2,676	2,115
16	**Operating**											
17	Other Outside Services	214,500	220,935	227,563	234,390	241,422	248,664	256,124	263,808	271,722	279,874	234,390
18	Postage	270	278	286	295	304	313	322	332	342	352	295
19	Meals	650	670	690	710	732	754	776	799	823	848	848
20	Utilities	250,000	257,500	265,225	273,182	281,377	289,819	298,513	307,468	316,693	326,193	273,182
21	Training, Travel, Meetings	4,300	4,429	4,562	4,699	4,840	4,985	5,134	5,288	5,447	5,611	4,699
22	Memberships, Subscription	216	222	229	236	243	250	258	266	274	282	236
23	Permits and Licenses	25,500	26,265	27,053	27,865	28,700	29,561	30,448	31,362	32,303	33,272	27,865
24	Operating Supplies	13,000	13,390	13,792	14,205	14,632	15,071	15,523	15,988	16,468	16,962	14,205
25	Uniforms	6,900	7,107	7,320	7,540	7,766	7,999	8,239	8,486	8,741	9,003	7,540
26	Chemicals	27,000	27,810	28,644	29,504	30,389	31,300	32,239	33,207	34,203	35,229	29,504
27	Fuel and Oil	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,185
28	Fleet Services Charges	3,167	3,262	3,360	3,461	3,564	3,671	3,782	3,895	4,012	4,132	3,461
29	Computer Services Charges		0	0	0	0	0	0	0	0	0	0
30	GIS Services Charges		0	0	0	0	0	0	0	0	0	0
31	Small Tools	1,900	1,957	2,016	2,076	2,138	2,203	2,269	2,337	2,407	2,479	2,076
32	R&M Buildings & Grounds	31,000	31,930	32,888	33,875	34,891	35,937	37,016	38,126	39,270	40,448	33,875
33	2003 R&M Buildings & Gro		0	0	0	0	0	0	0	0	0	0
34	R&M Machinery & Equipmen	38,000	39,140	40,314	41,524	42,769	44,052	45,374	46,735	48,137	49,581	41,524
35	**Total Wastewater Treatment**	1,099,454	1,157,438	1,197,366	1,238,700	1,281,490	1,325,790	1,371,652	1,419,134	1,468,294	1,519,192	1,238,700
36	**Wastewater Collection**											
37	**Personnel**											
38	Salaries	109,651	120,616	125,441	130,458	135,677	141,104	146,748	152,618	158,723	165,071	130,458
39	Overtime	300	312	324	337	351	365	380	395	411	427	337
40	Premium Time	300	312	324	337	351	365	380	395	411	427	337
41	Standby Time	3,800	3,952	4,110	4,274	4,445	4,623	4,808	5,001	5,201	5,409	4,274
42	FICA Taxes	7,137	7,851	8,165	8,491	8,831	9,184	9,552	9,934	10,331	10,744	8,491
43	Medicare Taxes	1,669	1,836	1,909	1,986	2,065	2,148	2,234	2,323	2,416	2,513	1,986
44	Employee Retirement	6,906	7,597	7,900	8,216	8,545	8,887	9,242	9,612	9,997	10,396	8,216
45	Health Insurance	28,097	29,221	30,390	31,605	32,870	34,184	35,552	36,974	38,453	39,991	31,605
46	Life/LTD/AD&D/Pretax	987	1,086	1,129	1,174	1,221	1,270	1,321	1,374	1,429	1,486	1,174
47	Workers Compensation	2,034	2,115	2,200	2,288	2,379	2,475	2,574	2,677	2,784	2,895	2,288
48	Unemployment Insurance	345	380	395	410	427	444	462	480	499	519	410
49	Employee Wellness Program	903	939	977	1,016	1,056	1,099	1,143	1,188	1,236	1,285	1,016
50	Cell Phone Allowance	153	158	162	167	172	177	183	188	194	200	200
51	Employee Medical Services	330	343	357	371	386	401	418	434	452	470	470

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_WW
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
52	**Operating**											
53	Leases and Rentals		0	0	0	0	0	0	0	0	0	0
54	Other Outside Services	0	0	0	0	0	0	0	0	0	0	0
55	Hardware/Software Services		0	0	0	0	0	0	0	0	0	0
56	On-Line Computer Service		0	0	0	0	0	0	0	0	0	0
57	Communications	0	0	0	0	0	0	0	0	0	0	0
58	Utilities	4,500	4,635	4,774	4,917	5,065	5,217	5,373	5,534	5,700	5,871	4,917
59	Training, Travel, Meetings		0	0	0	0	0	0	0	0	0	0
60	Memberships, Subscription		0	0	0	0	0	0	0	0	0	0
61	Operating Supplies	550	567	583	601	619	638	657	676	697	718	601
62	Uniforms		0	0	0	0	0	0	0	0	0	0
63	Protective Clothing	350	361	371	382	394	406	418	430	443	457	382
64	Small Tools	400	412	424	437	450	464	478	492	507	522	437
65	Central Services Charges		0	0	0	0	0	0	0	0	0	0
66	Fleet Services Charges	46,232	47,619	49,048	50,519	52,035	53,596	55,203	56,860	58,565	60,322	50,519
67	Computer Services Charges		0	0	0	0	0	0	0	0	0	0
68	GIS Services Charges		0	0	0	0	0	0	0	0	0	0
69	R&M Buildings & Grounds	700	721	743	765	788	811	836	861	887	913	765
70	R&M Treatment Facilities		0	0	0	0	0	0	0	0	0	0
71	R&M Utility Lines	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	4,371
72	R&M Office & Comm Equip		0	0	0	0	0	0	0	0	0	0
73	R&M Machinery & Equip	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	4,371
74	**Total Wastewater Collection**	223,344	239,271	248,214	257,497	267,132	277,132	287,511	298,284	309,467	321,074	257,497
75	**WW Meter Reading/Billing**											
76	**Personnel**											
77	Salaries	39,760	43,736	45,485	47,305	49,197	51,165	53,212	55,340	57,554	59,856	47,305
78	FICA Taxes	2,501	2,751	2,861	2,976	3,095	3,218	3,347	3,481	3,620	3,765	2,976
79	Medicare Taxes	585	644	669	696	724	753	783	814	847	881	696
80	Employee Retirement	2,420	2,662	2,768	2,879	2,994	3,114	3,239	3,368	3,503	3,643	2,879
81	Health Insurance	12,745	13,255	13,785	14,336	14,910	15,506	16,126	16,772	17,442	18,140	14,336
82	Life/LTD/AD&D/Pretax	358	394	410	426	443	461	479	498	518	539	426
83	Workers Compensation	430	447	465	484	503	523	544	566	588	612	484
84	Unemployment Insurance	121	133	138	144	150	156	162	168	175	182	144
85	Employee Wellness Program	410	426	443	461	480	499	519	540	561	584	461
86	Cell Phone Allowance	165	170	175	180	186	191	197	203	209	215	215
87	**Operating**											
88	Leases and Rentals		0	0	0	0	0	0	0	0	0	0
89	Contract Services	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743	9,835
90	On-Line Computer Service		0	0	0	0	0	0	0	0	0	0
91	Communications		0	0	0	0	0	0	0	0	0	0
92	Postage	1,800	1,854	1,910	1,967	2,026	2,087	2,149	2,214	2,280	2,349	2,349
93	Utilities		0	0	0	0	0	0	0	0	0	0
94	Training, Travel, Meetings		0	0	0	0	0	0	0	0	0	0
95	Memberships, Subscription		0	0	0	0	0	0	0	0	0	0
96	Operating Supplies	700	721	743	765	788	811	836	861	887	913	765
97	Uniforms		0	0	0	0	0	0	0	0	0	0
98	Protective Clothing	150	155	159	164	169	174	179	184	190	196	164
99	Small Tools		0	0	0	0	0	0	0	0	0	0
100	Central Services Charges		0	0	0	0	0	0	0	0	0	0
101	Fleet Services Charges	5,067	5,219	5,376	5,537	5,703	5,874	6,050	6,232	6,419	6,611	5,537
102	Computer Services Charges		0	0	0	0	0	0	0	0	0	0
103	GIS Services Charges		0	0	0	0	0	0	0	0	0	0

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED O&M COSTS

FILE: Stmboat_WW
SCHEDULE: O&M EXP
DATE: 8/12/2016
RANGE: OM

Line No.	DESCRIPTION	Budget 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
104	R&M Buildings & Grounds		0	0	0	0	0	0	0	0	0	0
105	R&M Utility Lines	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	16,391
106	R&M Office & Comm Equip		0	0	0	0	0	0	0	0	0	0
107	R&M Machinery & Equip		0	0	0	0	0	0	0	0	0	0
108	**Total WW Meter Reading / Billing**	91,212	97,286	100,849	104,545	108,379	112,355	116,479	120,758	125,196	129,800	104,545
109	**Wastewater Administration**											
110	**Personnel**											
111	Salaries	191,368	210,505	218,925	227,682	236,789	246,261	256,111	266,356	277,010	288,090	227,682
112	FICA Taxes	11,736	12,910	13,426	13,963	14,522	15,102	15,707	16,335	16,988	17,668	13,963
113	Medicare Taxes	2,795	3,075	3,197	3,325	3,458	3,597	3,741	3,890	4,046	4,208	3,325
114	Employee Retirement	11,564	12,720	13,229	13,758	14,309	14,881	15,476	16,095	16,739	17,409	13,758
115	Health Insurance	25,241	26,251	27,301	28,393	29,528	30,710	31,938	33,215	34,544	35,926	28,393
116	Life/LTD/AD&D/Pretax	1,722	1,894	1,970	2,049	2,131	2,216	2,305	2,397	2,493	2,592	2,049
117	Workers Compensation	2,447	2,545	2,647	2,753	2,863	2,977	3,096	3,220	3,349	3,483	2,753
118	Unemployment Insurance	578	636	661	688	715	744	774	804	837	870	688
119	Employee Wellness Program	811	843	877	912	949	987	1,026	1,067	1,110	1,154	912
120	Cell Phone Allowance	552	569	586	603	621	640	659	679	699	720	720
121	**Operating**											
122	Other Outside Services		0	0	0	0	0	0	0	0	0	0
123	Employee Licence Testing	630	649	668	688	709	730	752	775	798	822	688
124	As-Built Mapping Scanning/Stor	60	62	64	66	68	70	72	74	76	78	66
125	Drug & Alcohol Testing	120	124	127	131	135	139	143	148	152	157	131
126	Communications	4,565	4,702	4,843	4,988	5,138	5,292	5,451	5,614	5,783	5,956	4,988
127	Training, Travel, Meetings	3,640	3,749	3,862	3,978	4,097	4,220	4,346	4,477	4,611	4,749	3,978
128	Memberships, Subscriptions		0	0	0	0	0	0	0	0	0	0
129	Operating Supplies	400	412	424	437	450	464	478	492	507	522	437
130	Uniforms	600	618	637	656	675	696	716	738	760	783	656
131	Allocated Overhead	310,717	320,039	329,640	339,529	349,715	360,206	371,012	382,143	393,607	405,415	339,529
132	Small Equipment	500	515	530	546	563	580	597	615	633	652	546
133	Central Services Charges	0	0	0	0	0	0	0	0	0	0	0
134	Fleet Services Charges	8,866	9,132	9,406	9,688	9,979	10,278	10,586	10,904	11,231	11,568	9,688
135	Computer Services Charges		0	0	0	0	0	0	0	0	0	0
136	GIS Services Charges		0	0	0	0	0	0	0	0	0	0
137	R&M Office & Comm Equip		0	0	0	0	0	0	0	0	0	0
138	**Total WW Administration**	578,912	611,948	633,020	654,833	677,413	700,788	724,987	750,038	775,973	802,823	654,833
139	**General Services**											
140	**Operating**											
141	System Services	534	550	567	584	601	619	638	657	676	697	584
142	Cleaning Services	819	844	869	895	922	949	978	1,007	1,037	1,069	895
		1,353	1,394	1,435	1,478	1,523	1,568	1,616	1,664	1,714	1,765	1,478
139	**Sub Total O&M**	$1,994,275	$2,107,336	$2,180,885	$2,257,053	$2,335,936	$2,417,633	$2,502,245	$2,589,879	$2,680,644	$2,774,655	2,257,053
143	Additional Incremental O&M Costs											
144	Waterbody impairment regulation	-	25,000	27,500	28,600	29,744	30,934	32,171	33,458	34,796	36,188	28,600
145	Total Additional Incremental O&M	$0	$25,000	$27,500	$28,600	$29,744	$30,934	$32,171	$33,458	$34,796	$36,188	28,600
146	**Total O&M**	$1,994,275	$2,132,336	$2,208,385	$2,285,653	$2,365,680	$2,448,566	$2,534,416	$2,623,336	$2,715,440	$2,810,843	$2,285,653

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
2013 $

FILE: Stmboat_WW
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_CY

Line No.	DESCRIPTION	Function	Budget 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	Total
1	Sewer Main Replacement Program	3	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	0%	$10,000,000
2	Inflow & Infiltration Reduction Program	3	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	0%	600,000
3	Mt. Werner Interceptor Replacement	2	50,000	1,800,000	1,800,000	0	0	0	0	0	0	0	30%	3,650,000
4	Aeration Basin Blowers	1	0	0	0	0	440,000	0	0	0	0	0	20%	440,000
5	Digester #4	1	50,000	2,000,000	0	0	0	0	0	0	0	0	100%	2,050,000
6	Major Treatment Plant Upgrades	1	221,576	225,878	232,655	239,635	246,824	254,228	0	275,000	275,000	275,000	0%	2,245,796
7	Steamboat II Lift Station	4	250,000	0	0	0	0	0	0	0	0	0	70%	250,000
8	Upgrades for Nutrient Regulations	1	0	0	0	0	0	0	15,000,000	0	0	0	0%	15,000,000
9	Upgrades for Temperature Regulations	1	0	0	0	0	0	0	5,000,000	0	0	0	0%	5,000,000
10	Rate Study Update	5	0	0	0	50,000	0	0	50,000	0	0	50,000	25%	150,000
	Total CIP		**$1,631,576**	**$5,085,878**	**$3,092,655**	**$1,349,635**	**$1,746,824**	**$1,314,228**	**$21,110,000**	**$1,335,000**	**$1,335,000**	**$1,385,000**		**$39,385,796**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
(Inflated $)

FILE: Stmboat_WW
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_INFL

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	Total
	Growth Related CIP													
1	Sewer Main Replacement Program	3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0%	$0
2	Inflow & Infiltration Reduction Program	3	0	0	0	0	0	0	0	0	0	0	0%	0
3	Mt. Werner Interceptor Replacement	2	15,000	540,000	556,200	0	0	0	0	0	0	0	30%	1,111,200
4	Aeration Basin Blowers	1	0	0	0	0	96,160	0	0	0	0	0	20%	96,160
5	Digester #4	1	50,000	2,000,000	0	0	0	0	0	0	0	0	100%	2,050,000
6	Major Treatment Plant Upgrades	1	0	0	0	0	0	0	0	0	0	0	0%	0
7	Steamboat II Lift Station	4	175,000	0	0	0	0	0	0	0	0	0	70%	175,000
8	Upgrades for Nutrient Regulations	1	0	0	0	0	0	0	0	0	0	0	0%	0
9	Upgrades for Temperature Regulations	1	0	0	0	0	0	0	0	0	0	0	0%	0
10	Rate Study Update		0	0	0	13,261	0	0	14,491	0	0	15,835	25%	43,587
														0
	Total Growth Related CIP		**$240,000**	**$2,540,000**	**$556,200**	**$13,261**	**$96,160**	**$0**	**$14,491**	**$0**	**$0**	**$15,835**		**$3,475,947**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
(Inflated $)

FILE: Stmboat_WW
SCHEDULE: CIP
DATE: 08/15/16
RANGE: CIP_INFL2

Line No.	DESCRIPTION	Function	Estimated 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Non-Growth Percent Allocation	Total
				Projected										
	Non-Growth Related CIP													
1	Sewer Main Replacement Program	3	$1,000,000	$1,000,000	$1,030,000	$1,060,900	$1,092,727	$1,125,509	$1,159,274	$1,194,052	$1,229,874	$1,266,770	100%	$11,159,106
2	Inflow & Infiltration Reduction Program	3	60,000	60,000	61,800	63,654	65,564	67,531	69,556	71,643	73,792	76,006	100%	669,546
3	Mt. Werner Interceptor Replacement	2	35,000	1,260,000	1,297,800	0	0	0	0	0	0	0	70%	2,592,800
4	Aeration Basin Blowers	1	0	0	0	0	384,640	0	0	0	0	0	80%	384,640
5	Digester #4	1	0	0	0	0	0	0	0	0	0	0	0%	0
6	Major Treatment Plant Upgrades	1	221,576	225,878	239,635	254,229	269,711	286,136	0	328,364	338,215	348,362	100%	2,512,106
7	Steamboat II Lift Station	4	75,000	0	0	0	0	0	0	0	0	0	30%	75,000
8	Upgrades for Nutrient Regulations	1	0	0	0	0	0	0	17,389,111	0	0	0	100%	17,389,111
9	Upgrades for Temperature Regulations	1	0	0	0	0	0	0	5,796,370	0	0	0	100%	5,796,370
10	Rate Study Update		0	0	0	39,784	0	0	43,473	0	0	47,504	75%	130,760
	Total Non-Growth Related CIP		**$1,391,576**	**$2,545,878**	**$2,629,235**	**$1,418,567**	**$1,812,642**	**$1,479,175**	**$24,457,785**	**$1,594,060**	**$1,641,882**	**$1,738,642**		**$40,709,440**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DEBT SERVICE COVERAGE TEST
TOTAL WASTEWATER FUND

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_DSC

DESCRIPTION	Projected									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Revenues - Including Tap Fees	$4,095,101	$4,541,985	$4,868,596	$5,200,767	$5,564,604	$5,956,238	$6,387,764	$6,474,248	$6,643,482	$6,822,126
Operating Expenditures	(1,994,275)	(2,132,336)	(2,208,385)	(2,285,653)	(2,365,680)	(2,448,566)	(2,534,416)	(2,623,336)	(2,715,440)	(2,810,843)
Revenues Available For Debt Service	2,100,826	2,409,649	2,660,211	2,915,113	3,198,924	3,507,672	3,853,348	3,850,911	3,928,041	4,011,283
Revenue Bond Debt Service	$964,588	$1,174,970	$1,384,282	$1,383,762	$1,171,739	$1,171,344	$1,532,272	$2,322,597	$2,322,393	$2,321,566
Debt Service Coverage Ratio	2.18	2.05	1.92	2.11	2.73	2.99	2.51	1.66	1.69	1.73
Target	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Above/(Below) Target	0.68	0.55	0.42	0.61	1.23	1.49	1.01	0.16	0.19	0.23
Annual Revenues - Excluding Tap Fees	$3,557,402	$3,900,968	$4,259,162	$4,581,638	$4,931,622	$5,309,161	$5,730,730	$5,802,774	$5,961,943	$6,125,809
Operating Expenditures	(1,994,275)	(2,132,336)	(2,208,385)	(2,285,653)	(2,365,680)	(2,448,566)	(2,534,416)	(2,623,336)	(2,715,440)	(2,810,843)
Revenues Available For Debt Service	1,563,127	1,768,632	2,050,778	2,295,985	2,565,942	2,860,595	3,196,315	3,179,438	3,246,503	3,314,966
Revenue Bond Debt Service	$964,588	$1,174,970	$1,384,282	$1,383,762	$1,171,739	$1,171,344	$1,532,272	$2,322,597	$2,322,393	$2,321,566
Debt Service Coverage Ratio	1.62	1.51	1.48	1.66	2.19	2.44	2.09	1.37	1.40	1.43
Target	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Above/(Below) Target	0.52	0.41	0.38	0.56	1.09	1.34	0.99	0.27	0.30	0.33
Additional Bonds Test										
Annual Revenues - Including Tap Fees	$4,095,101	$4,541,985	$4,868,596	$5,200,767	$5,564,604	$5,956,238	$6,387,764	$6,474,248	$6,643,482	$6,822,126
Operating Expenditures	(1,994,275)	(2,132,336)	(2,208,385)	(2,285,653)	(2,365,680)	(2,448,566)	(2,534,416)	(2,623,336)	(2,715,440)	(2,810,843)
Revenues Available For Debt Service	2,100,826	2,409,649	2,660,211	2,915,113	3,198,924	3,507,672	3,853,348	3,850,911	3,928,041	4,011,283
Maximum Annual Debt Service	$643,079	$1,059,257	$1,058,996	$1,058,282	$845,694	$845,694	$1,810,762	$1,810,762	$1,810,762	$1,810,762
Debt Service Coverage Ratio	3.27	2.27	2.51	2.75	3.78	4.15	2.13	2.13	2.17	2.22
Requirement	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Above/(Below) Target	2.17	1.17	1.41	1.65	2.68	3.05	1.03	1.03	1.07	1.12

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - EXISTING DEBT WATER

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/15/2016
RANGE: DEBTEXIST

EXISITNG DEBT SERVICE PAYMENTS	Non - Growth %	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
2011 Series bond portion related to Wastewater	34%										
Non-Growth Related											
2011 Series [1]	83%	$269,937	$270,148	$270,261	$270,148	$271,136	$270,289	$270,501	$270,614	$270,445	$269,759
Subtotal Non-Growth Related		269,937	270,148	270,261	270,148	271,136	270,289	270,501	270,614	270,445	269,759
Growth Related	**Growth %**										
1999 Refinance Series	100%	$213,278	$213,348	$213,087	$212,373	$0	$0	$0	$0	$0	$0
2001 Series	100%	426,085	428,053	429,400	429,731	428,891	429,516	0	0	0	0
2011 Series [1]	17%	$55,288	$55,332	$55,355	$55,332	$55,534	$55,360	$55,404	$55,427	$55,392	$55,252
Subtotal Growth Related		694,651	696,733	697,842	697,435	484,425	484,876	55,404	55,427	55,392	55,252
Total		$964,588	$966,881	$968,103	$967,584	$755,561	$755,166	$325,905	$326,041	$325,837	$325,010

[1] 34% of 2011 CWRPDA loan allocated to the wastewater fund based on projects funded in official statement. Projects split between growth and non-growth components.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - NON-GROWTH

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NG

Revenue Bonds

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projected									
BOND SIZING											
Amount to be Funded		$0	$2,500,000	$0	$0	$0	$0	$19,500,000	$0	$0	$0
Issuance Costs		0	25,000	0	0	0	0	195,000	0	0	0
Rounding Amount		0	0	0	0	0	0	0	0	0	0
Total Bond Size		$0	$2,525,000	$0	$0	$0	$0	$19,695,000	$0	$0	$0
DEBT SERVICE PAYMENT (1)											
2016	SERIES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	SERIES		92,897	185,794	185,794	185,794	185,794	185,794	185,794	185,794	185,794
2018	SERIES			0	0	0	0	0	0	0	0
2019	SERIES				0	0	0	0	0	0	0
2020	SERIES					0	0	0	0	0	0
2021	SERIES						0	0	0	0	0
2022	SERIES							790,189	1,580,378	1,580,378	1,580,378
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Proposed Debt Service		$0	$92,897	$185,794	$185,794	$185,794	$185,794	$975,983	$1,766,172	$1,766,172	$1,766,172

(1) 1/2 Principal and Interest payment is due on year issued for assumed 2012 and subsequent debt.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - NON-GROWTH DEBT SERVICE RESERVE

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/15/2016
RANGE: DEBT_NGDSR

DESCRIPTION		Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEBT SERVICE RESERVE											
2016	SERIES	$0	$0	$0	$0	$0					
2017	SERIES		185,794	0	0	0	$0				
2018	SERIES			0	0	0	0	$0			
2019	SERIES				0	0	0	0	$0		
2020	SERIES					0	0	0	0	$0	
2021	SERIES						0	0	0	0	$0
2022	SERIES							1,580,378	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Debt Service Reserve Deposit		$0	$185,794	$0	$0	$0	$0	$1,580,378	$0	$0	$0

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING GROWTH

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/15/2016
RANGE: DEBT_NEWGROWTH

Revenue Bonds

DESCRIPTION		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
		Projected									
BOND SIZING											
Amount to be Funded		$0	$3,100,000	$0	$0	$0	$0	$0	$0	$0	$0
Issuance Costs		0	31,000	0	0	0	0	0	0	0	0
Rounding Amount		0	0	0	0	0	0	0	0	0	0
Total Bond Size		$0	$3,131,000	$0	$0	$0	$0	$0	$0	$0	$0
DEBT SERVICE PAYMENT (1)											
2016	SERIES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	SERIES		115,192	230,384	230,384	230,384	230,384	230,384	230,384	230,384	230,384
2018	SERIES			0	0	0	0	0	0	0	0
2019	SERIES				0	0	0	0	0	0	0
2020	SERIES					0	0	0	0	0	0
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Proposed Debt Service		$0	$115,192	$230,384	$230,384	$230,384	$230,384	$230,384	$230,384	$230,384	$230,384

(1) 1/2 Principal and Interest payment is due on year issued for assumed 2012 and subsequent debt.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
BOND SIZING - GROWTH DEBT SERVICE RESERVE

FILE: Stmboat_WW
SCHEDULE: DEBT
DATE: 8/12/2016
RANGE: DEBT_NEWGROWTHDSR

DESCRIPTION		Projected									
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEBT SERVICE RESERVE											
2016	SERIES	$0	$0	$0	$0	$0					
2017	SERIES		230,384	0	0	0	0				
2018	SERIES			0	0	0	0	0			
2019	SERIES				0	0	0	0	0		
2020	SERIES					0	0	0	0	0	
2021	SERIES						0	0	0	0	0
2022	SERIES							0	0	0	0
2023	SERIES								0	0	0
2024	SERIES									0	0
2025	SERIES										0
Total Debt Service Reserve Deposit		$0	$230,384	$0	$0	$0	$0	$0	$0	$0	$0

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
INTRA-FUND LOANS

FILE: Stmboat_WW
SCHEDULE: CASHFLOW
DATE: 08/12/16
RANGE: CF_LOAN

Line No.		Projected									
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Interest Rate	1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
2	**Loans To/(From) Tap Fee Subfund**										
3	**(To)/From Operation Subfund**										
4	Beginning of Year Balance	$0	$1,000,000	$1,020,000	$1,810,400	$2,186,608	$2,430,340	$2,558,947	$2,280,126	$1,955,728	$1,614,843
5	Current Year Loans	1,000,000	0	770,000	340,000	200,000	80,000	(330,000)	(370,000)	(380,000)	(370,000)
6	Interest	0	20,000	20,400	36,208	43,732	48,607	51,179	45,603	39,115	32,297
7	Current Year Payments	0	0	0	0	0	0	0	0	0	0
8	End of Year Balance	$1,000,000	$1,020,000	$1,810,400	$2,186,608	$2,430,340	$2,558,947	$2,280,126	$1,955,728	$1,614,843	$1,277,140

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
GENERAL INPUT SCHEDULE

FILE: Stmboat_WW
SCHEDULE: INPUT
DATE: 08/15/16
RANGE: INPUT1

		Input Column	
1.	**General Model Parameters**		
a.	Base Year - (January 1)	**2016**	**2016**
	Test Year	**2019**	**2019**

2. Beginning Fund Balances - January 1, 2016

a.

Wastewater	
Operations Subfund (1)	$6,095,130
Tap Fee Subfund (2)	(604,015)
Total	$5,491,115

(1) Pooled cash and investments less accounts payable. Source "2015 Unaudited Financials."
(2) Unspent tap fees as pf 12/31/15. Source is "Tap fees_summary_2015 Final."

3. Base Year Revenues / Expenses

Charges for Services	**Budget 2016**	
Sewer Charges	$3,394,000	Projected in Revenue Tab
Meter Sales	7,000	
Interest Income	0	
Interest Income Investments	0	
Connections/Tap Fees	380,250	Tap Fees - Projected in Rev2
Charges for Services	68,000	
Grazing and Hay Leases	1,000	
Cell Phone Tower Lease	12,000	
Total	$3,862,250	

(1) Per City staff.

4. Escalation / Inflation Factors

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
a. General Inflation Factors											
Salaries			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Continuous Part-Time			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Premium Time			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Overtime			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Standby Time			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
FICA Taxes			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Medicare Taxes			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Employee Retirement			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Health Insurance			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Life/LTD/AD&D/Pretax			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Workers Compensation			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Unemployment Insurance			10.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Employee Wellness Program			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Leases and Rentals			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Other Outside Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Hardware/Software Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Communications			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Employee Licence Testing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
As-Built Mapping Scanning/Stor			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Drug & Alcohol Testing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Utilities			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Training, Travel, Meetings			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Memberships, Subscription			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Operating Supplies			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Small Tools			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Small Equipment			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Fleet Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Buildings & Grounds			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Treatment Facilities			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Utility Lines			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Office & Comm Equip			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Machinery & Equip			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
System Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cleaning Services			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Training, Travel, Meetings			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Central Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Computer Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
GIS Services Charges			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Permits and Licenses			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Uniforms			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Chemicals			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Fuel and Oil			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2003 R&M Buildings & Gro			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
On-Line Computer Service			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Protective Clothing			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Transfers to Other Funds			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Allocated Overhead			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Meals			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Postage			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cell Phone Allowance			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Employee Medical Services			4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Construction Project Cost Inflator - Annual		0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Construction Project Cost Inflator - Cumulative		0.00%	3.00%	6.09%	9.27%	12.55%	15.93%	19.41%	22.99%	26.68%	30.48%
Miscellaneous Revenue		0.00%	0.50%	0.75%	0.75%	1.00%	1.00%	1.50%	1.50%	1.50%	1.50%

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
b.	Growth Factors											
	Active EQRs - City (1)	5,587	5,643	5,698	5,753	5,809	5,864	5,919	5,974	6,029	6,084	6,138
	Percent Change From Prior Year	0.00%	0.99%	0.98%	0.97%	0.96%	0.95%	0.94%	0.93%	0.92%	0.91%	0.90%
	EQRs added each year		55	55	55	55	55	55	55	55	55	55
	Active EQRs - District (1)	7,352	7,402	7,452	7,502	7,551	7,601	7,651	7,701	7,751	7,800	7,850
	Percent Change From Prior Year	0.00%	0.68%	0.67%	0.67%	0.66%	0.66%	0.66%	0.65%	0.65%	0.64%	0.64%
	EQRs added each year		50	50	50	50	50	50	50	50	50	50
	Active EQRs - Steamboat II (1)	411	411	411	411	411	411	411	411	411	411	411
	Percent Change From Prior Year	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	EQRs added each year		-	-	-	-	-	-	-	-	-	-
	Total EQRs	13,351	13,456	13,561	13,666	13,771	13,876	13,981	14,086	14,191	14,295	14,400
	Percent Change From Prior Year		0.79%	0.78%	0.78%	0.77%	0.76%	0.76%	0.75%	0.75%	0.74%	0.73%
	Total EQRs added each year		105	105	105	105	105	105	105	105	104	105
c.	Interest Earnings on Cash Balance		1.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

(1) Master Plan is source for 2009 EQR values adjusted for tap fee sales through 2012. "10-Year History of Tap Fees and EQRs" is source for 2013 through 2015." EQRs estimated as of 12/31/15.

5. Bond / Loan Parameters

	Estimated	*Projected*								
	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
External Debt										
Length of Term / Repayment Period (years)	20	20	20	20	20	20	20	20	20	20
Annual Interest Rate	4.00%	4.00%	4.50%	4.50%	4.50%	5.00%	5.00%	5.00%	5.00%	5.00%
Issuance Costs	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Fiscal Year Month of Issue (1=January)	7	7	7	7	7	7	7	7	7	7

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: PROJECTED SEWER SERVICE REVENUE UNDER EXISTING RATES

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: ROJ_REV_EXIST

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	$1,259,521	$1,271,834	$1,284,148	$1,296,461	$1,308,774	$1,321,087	$1,333,400	$1,345,714	$1,358,027	$1,370,340	$1,296,461
2	Commercial	472,533	477,428	482,328	487,223	492,117	497,017	501,912	506,807	511,707	516,601	487,223
3	Combined	137,622	138,905	140,188	141,471	142,756	144,039	145,322	146,606	147,889	149,174	141,471
4	Senior	19,264	19,463	19,661	19,860	20,059	20,257	20,456	20,654	20,853	21,052	19,860
5	**Total Inside City**	**1,888,940**	**1,907,630**	**1,926,325**	**1,945,015**	**1,963,706**	**1,982,400**	**2,001,090**	**2,019,781**	**2,038,476**	**2,057,167**	**1,945,015**
	Steamboat II											
6	Residential	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251
7	Commercial	796	796	796	796	796	796	796	796	796	796	796
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**	**156,047**
	Mt. Werner											
10	Residential	830,655	836,190	841,725	847,260	852,795	858,465	864,000	869,670	875,205	880,740	847,260
11	Commercial	307,020	309,515	312,016	314,511	317,007	319,503	321,998	324,494	326,989	329,485	314,511
12	Combined	205,635	207,147	208,660	210,172	211,684	213,196	214,709	216,221	217,733	219,245	210,172
13	**Total Mt. Werner**	**1,343,310**	**1,352,852**	**1,362,401**	**1,371,943**	**1,381,486**	**1,391,164**	**1,400,707**	**1,410,385**	**1,419,927**	**1,429,470**	**1,371,943**
	Tree Haus											
14	Residential	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**
18	**Total System**	**$3,421,451**	**$3,449,683**	**$3,477,927**	**$3,506,159**	**$3,534,393**	**$3,562,765**	**$3,590,998**	**$3,619,367**	**$3,647,604**	**$3,675,838**	**$3,506,159**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: SERVICE CHARGE REVENUE

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_REV_MSC

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	$1,259,521	$1,271,834	$1,284,148	$1,296,461	$1,308,774	$1,321,087	$1,333,400	$1,345,714	$1,358,027	$1,370,340	$1,296,461
2	Commercial	122,053	123,318	124,583	125,848	127,112	128,377	129,642	130,907	132,172	133,436	125,848
3	Combined	107,560	108,566	109,571	110,576	111,581	112,586	113,592	114,597	115,602	116,607	110,576
4	Senior	$19,264	$19,463	$19,661	$19,860	$20,059	$20,257	$20,456	$20,654	$20,853	$21,052	19,860
5	**Total Inside City**	**1,508,399**	**1,523,181**	**1,537,963**	**1,552,744**	**1,567,526**	**1,582,308**	**1,597,090**	**1,611,872**	**1,626,653**	**1,641,435**	**1,552,744**
	Steamboat II											
6	Residential	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251	155,251
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**	**155,251**
	Mt. Werner											
10	Residential	830,655	836,190	841,725	847,260	852,795	858,465	864,000	869,670	875,205	880,740	847,260
11	Commercial	0	0	0	0	0	0	0	0	0	0	0
12	Combined	460	464	467	471	474	477	481	484	487	491	471
13	**Total Mt. Werner**	**831,115**	**836,654**	**842,192**	**847,731**	**853,269**	**858,942**	**864,481**	**870,154**	**875,692**	**881,231**	**847,731**
	Tree Haus											
14	Residential	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,154
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**	**33,154**
14	**Total System**	**$2,527,920**	**$2,548,240**	**$2,568,560**	**$2,588,880**	**$2,609,200**	**$2,629,656**	**$2,649,976**	**$2,670,431**	**$2,690,751**	**$2,711,071**	**$2,588,880**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: VOLUME CHARGE REVENUE

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_REV_VOL

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	Commercial	350,480	354,110	357,745	361,375	365,005	368,640	372,270	375,900	379,535	383,165	361,375
3	Combined	30,061	30,339	30,617	30,895	31,175	31,453	31,731	32,009	32,287	32,567	30,895
4	Senior	0	0	0	0	0	0	0	0	0	0	0
5	**Total Inside City**	**380,541**	**384,449**	**388,362**	**392,270**	**396,180**	**400,093**	**404,001**	**407,909**	**411,822**	**415,732**	**392,270**
	Steamboat II											
6	Residential	0	0	0	0	0	0	0	0	0	0	0
7	Commercial	796	796	796	796	796	796	796	796	796	796	796
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**796**	**796**	**796**	**796**	**796**	**796**	**796**	**796**	**796**	**796**	**796**
	Mt. Werner											
10	Residential	0	0	0	0	0	0	0	0	0	0	0
11	Commercial	307,020	309,515	312,016	314,511	317,007	319,503	321,998	324,494	326,989	329,485	314,511
12	Combined	205,175	206,684	208,193	209,701	211,210	212,719	214,228	215,737	217,246	218,755	209,701
13	**Total Mt. Werner**	**512,195**	**516,199**	**520,208**	**524,213**	**528,217**	**532,222**	**536,226**	**540,231**	**544,235**	**548,239**	**525,804**
	Tree Haus											
14	Residential	0	0	0	0	0	0	0	0	0	0	0
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18	**Total System**	**$893,532**	**$901,444**	**$909,366**	**$917,279**	**$925,193**	**$933,110**	**$941,023**	**$948,935**	**$956,853**	**$964,767**	**$918,075**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: PROJECTED SEWER VOLUME

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_VOL

Line No.	Customer Class	Projected 2016 kgals	2017 kgals	2018 kgals	2019 kgals	2020 kgals	2021 kgals	2022 kgals	2023 kgals	2024 kgals	2025 kgals	Test Year kgals
	Inside City											
1	Residential	132,593	133,889	135,185	136,482	137,778	139,074	140,370	141,667	142,963	144,259	136,482
2	Commercial	70,096	70,822	71,549	72,275	73,001	73,728	74,454	75,180	75,907	76,633	72,275
3	Combined	14,926	15,064	15,202	15,340	15,479	15,617	15,755	15,893	16,031	16,170	15,340
4	Senior	2,629	2,656	2,683	2,710	2,738	2,765	2,792	2,819	2,846	2,873	2,710
5	**Total Inside City**	**220,244**	**222,431**	**224,619**	**226,807**	**228,996**	**231,184**	**233,371**	**235,559**	**237,747**	**239,935**	**226,807**
	Steamboat II											
6	Residential	39,313	39,313	39,313	39,313	39,313	39,313	39,313	39,313	39,313	39,313	39,313
7	Commercial	173	173	173	173	173	173	173	173	173	173	173
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	39,486	39,486	39,486	39,486	39,486	39,486	39,486	39,486	39,486	39,486	39,486
	Mt. Werner											
10	Residential	220,376	221,844	223,313	224,781	226,250	227,754	229,223	230,727	232,195	233,664	224,781
11	Commercial	64,096	64,617	65,139	65,660	66,181	66,702	67,223	67,744	68,265	68,786	65,660
12	Combined	42,834	43,149	43,464	43,779	44,094	44,409	44,724	45,039	45,354	45,669	43,779
13	**Total Mt. Werner**	**327,306**	**329,610**	**331,916**	**334,220**	**336,525**	**338,865**	**341,170**	**343,510**	**345,814**	**348,119**	**334,220**
	Tree Haus											
14	Residential	4,271	4,271	4,271	4,271	4,271	4,271	4,271	4,271	4,271	4,271	4,271
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**	**4,271**
18	**Total System**	**591,307**	**595,798**	**600,292**	**604,784**	**609,278**	**613,806**	**618,298**	**622,826**	**627,318**	**631,811**	**604,784**
			0.76%	*0.75%*	*0.75%*	*0.74%*	*0.74%*	*0.73%*	*0.73%*	*0.72%*	*0.72%*	*2.28%*

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: 3/4" EQUIVALENT METERS (BASED ON METER COST)

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_MTRCST

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	2,822	2,850	2,877	2,905	2,932	2,960	2,988	3,015	3,043	3,070	2,905
2	Commercial	645	651	658	664	670	677	683	689	695	702	664
3	Combined	135	136	138	139	140	141	143	144	145	147	139
4	Senior	49	50	50	51	51	52	52	53	53	54	51
5	**Total Inside City**	**3,651**	**3,687**	**3,723**	**3,759**	**3,793**	**3,830**	**3,866**	**3,901**	**3,936**	**3,973**	**3,759**
	Steamboat II											
6	Residential	20	20	20	20	20	20	20	20	20	20	20
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	20	20	20	20	20	20	20	20	20	20	20
	Mt. Werner											
10	Residential	1	1	1	1	1	1	1	1	1	1	1
11	Commercial	1	1	1	1	1	1	1	1	1	1	1
12	Combined	2	2	2	2	2	2	2	2	2	2	2
13	**Total Mt. Werner**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
	Tree Haus											
14	Residential	1	1	1	1	1	1	1	1	1	1	1
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
18	**Total System**	**3,676**	**3,712**	**3,748**	**3,784**	**3,818**	**3,855**	**3,891**	**3,926**	**3,961**	**3,998**	**3,784**
19	**Added SFEs**		**36**	**36**	**36**	**34**	**37**	**36**	**35**	**35**	**37**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CALCULATED: 3/4" EQUIVALENT METERS (BASED ON METER CAPACITY)

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_MTREQ

Line No.	Customer Class	Projected 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
	Inside City											
1	Residential	2,917	2,946	2,975	3,003	3,032	3,060	3,089	3,117	3,145	3,174	3,003
2	Commercial	779	787	795	802	810	818	826	833	841	848	802
3	Combined	176	178	179	181	183	184	186	188	190	191	181
4	Senior	49	50	50	51	51	52	52	53	53	54	51
5	**Total Inside City**	**3,921**	**3,961**	**3,999**	**4,037**	**4,076**	**4,114**	**4,153**	**4,191**	**4,229**	**4,267**	**4,037**
	Steamboat II											
6	Residential	60	60	60	60	60	60	60	60	60	60	60
7	Commercial	0	0	0	0	0	0	0	0	0	0	0
8	Combined	0	0	0	0	0	0	0	0	0	0	0
9	**Total Steamboat II**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**
	Mt. Werner											
10	Residential	1	1	1	1	1	1	1	1	1	1	1
11	Commercial	1	1	1	1	1	1	1	1	1	1	1
12	Combined	6	6	6	6	6	6	6	6	6	6	6
13	**Total Mt. Werner**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
	Tree Haus											
14	Residential	1	1	1	1	1	1	1	1	1	1	1
15	Commercial	0	0	0	0	0	0	0	0	0	0	0
16	Combined	0	0	0	0	0	0	0	0	0	0	0
17	**Total Tree Haus**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
18	**Total System**	**3,990**	**4,030**	**4,068**	**4,106**	**4,145**	**4,183**	**4,222**	**4,260**	**4,298**	**4,336**	**4,106**
19	**Added ERUs**		**40**	**38**	**38**	**39**	**38**	**39**	**38**	**38**	**38**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
EXISTING VOLUME CHARGE

FILE:	**Stmboat_WW**
SCHEDULE:	**REV**
DATE:	**08/15/16**
RANGE:	**VOL_USE**

Period	**2016**
Months Effective	12

Customer Class	**2016 Volume Charge per kgal**
	All Use
	$/kgals
Inside City	
Residential	$0.00
Commercial	5.00
Combined	5.00
Senior	0.00
Unused	0.00
Unused	0.00
Unused	0.00
Unused	0.00
Unused	0.00
Steamboat II	
Residential	$0.00
Commercial	4.60
Combined	4.60
Mt. Werner	
Residential	$0.00
Commercial	4.79
Combined	4.79
Tree Haus	
Residential	$0.00
Commercial	0.00
Combined	0.00

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
EXISTING SERVICE CHARGE BY METER SIZE

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: EXIST_MSC

Period 2016
Months Effective 12

	2016 Monthly Service Charge							
Meter Size	**3/4"**	**1"**	**1 1/2"**	**2"**	**3"**	**4"**	**6"**	**8"**
	$/unit	**$/unit**	**$/unit**	**$/unit**	**$/unit**	**$/unit**	**$/unit**	**$/unit**
Customer Class								
Inside City								
Residential	$33.10	$33.10	$33.10	$33.10	$33.10	$33.10	$33.10	$33.10
Commercial	26.35	26.35	26.35	26.35	26.35	26.35	26.35	26.35
Combined	26.35	26.35	26.35	26.35	26.35	26.35	26.35	26.35
Senior	16.55	16.55	16.55	16.55	16.55	16.55	16.55	16.55
Steamboat II								
Residential	31.10	31.10	31.10	31.10	31.10	31.10	31.10	31.10
Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mt. Werner								
Residential	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Tree Haus								
Residential	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45
Commercial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROJECTED BILLS

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: PROJ_BILLS

	Actual	Projected										
Customer Class	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	
Inside City												
Residential	31,638	31,951	32,264	32,577	32,890	33,202	33,514	33,826	34,137	34,448	34,758	32,890
Commercial	4,617	4,663	4,709	4,755	4,801	4,847	4,893	4,939	4,984	5,029	5,074	4,801
Combined	818	826	834	842	850	858	866	874	882	890	898	850
Senior	584	590	596	602	608	614	620	626	632	638	644	608
Total Inside City	**37,657**	**38,030**	**38,403**	**38,776**	**39,149**	**39,521**	**39,893**	**40,265**	**40,635**	**41,005**	**41,374**	**39,149**
Steamboat II												
Residential	12	12	12	12	12	12	12	12	12	12	12	12
Commercial	12	12	12	12	12	12	12	12	12	12	12	12
Combined	0	0	0	0	0	0	0	0	0	0	0	0
Total Steamboat II	24	24	24	24	24	24	24	24	24	24	24	24
Mt. Werner												
Residential	4	4	4	4	4	4	4	4	4	4	4	4
Commercial	4	4	4	4	4	4	4	4	4	4	4	4
Combined	4	4	4	4	4	4	4	4	4	4	4	4
Total Mt. Werner	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	12
Tree Haus												
Residential	12	12	12	12	12	12	12	12	12	12	12	12
Commercial	0	0	0	0	0	0	0	0	0	0	0	0
Combined	0	0	0	0	0	0	0	0	0	0	0	0
Total Tree Haus	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	12
Total System	**37,705**	**38,078**	**38,451**	**38,824**	**39,197**	**39,569**	**39,941**	**40,313**	**40,683**	**41,053**	**41,422**	**39,197**
Average Annual Growth		**0.99%**	**0.98%**	**0.97%**	**0.96%**	**0.95%**	**0.94%**	**0.93%**	**0.92%**	**0.91%**	**0.90%**	

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ACCOUNTS BY METER SIZE
AS OF DECEMBER 2015

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: ACCTS_METER

Customer Class	Total	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
Inside City									
Residential	2,699	2,480	194	10	10	4	1	0	0
Commercial	415	266	69	35	34	8	3	0	0
Combined	60	27	17	0	14	2	0	0	0
Senior	7	7	0	0	0	0	0	0	0
Total Inside City	**3,181**	**2,780**	**280**	**45**	**58**	**14**	**4**	**0**	**0**
Steamboat II									
Residential	1								1
Commercial	0								
Combined	0								
Total Steamboat II	1	0	0	0	0	0	0	0	1
Mt. Werner									
Residential	2,240	1,315	632	178	85	17	13	0	0
Commercial	131	32	40	31	23	4	1	0	0
Combined	11	1	1	0	2	2	3	2	0
Total Mt. Werner	**2,382**	**1,348**	**673**	**209**	**110**	**23**	**17**	**2**	**0**
Tree Haus									
Residential	111	111							
Commercial	0	0							
Combined	0	0							
Total Tree Haus	**111**	**111**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total System	**5,675**	**4,239**	**953**	**254**	**168**	**37**	**21**	**2**	**1**

Inside City									
Residential	100.0%	91.9%	7.2%	0.4%	0.4%	0.1%	0.0%	0.0%	0.0%
Commercial	100.0%	64.1%	16.6%	8.4%	8.2%	1.9%	0.7%	0.0%	0.0%
Combined	100.0%	45.0%	28.3%	0.0%	23.3%	3.3%	0.0%	0.0%	0.0%
Senior	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Inside City	**100.0%**	**87.4%**	**8.8%**	**1.4%**	**1.8%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**
Steamboat II									
Residential	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Commercial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Combined	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Steamboat II	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Mt. Werner									
Residential	100.0%	58.7%	28.2%	7.9%	3.8%	0.8%	0.6%	0.0%	0.0%
Commercial	100.0%	24.4%	30.5%	23.7%	17.6%	3.1%	0.8%	0.0%	0.0%
Combined	100.0%	9.1%	9.1%	0.0%	18.2%	18.2%	27.3%	18.2%	0.0%
Total Mt. Werner	**100.0%**	**87.4%**	**8.8%**	**1.4%**	**1.8%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**
Tree Haus									
Residential	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Combined	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Tree Haus	**100.0%**	**100.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
METER RATIOS

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: METER_RATIOS

	B 3/4" Displacement	C 1" Displacement	D 1 1/2" Displacement	E 2" Compund	F 3" Compund	G 4" Turbine Class I	H 6" Turbine Class I	J 8" Turbine Class I
Meter Capacity (gpm)	30	50	100	160	350	600	1,350	1,600
Meter Capacity Ratio	1.00	1.67	3.33	5.33	11.67	20.00	45.00	60.00
Meter Cost	394.17	561.49	1,308.09	1,549.40	2,256.76	3,820.27	5,475.49	7847.86
Meter Cost Ratio	1.00	1.42	3.32	3.93	5.73	9.69	13.89	19.91

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL END USER ACCOUNTS BY CUSTOMER CLASS

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 07/29/16
RANGE: HISTACCTS

Customer Class	2014	2015
Inside City		
Residential	2,618	2,637
Commercial	383	385
Combined	68	68
Senior	47	49
Total Inside City	**3,116**	**3,138**
Steamboat II		
Residential	406	418
Commercial	1	1
Combined		
Total Steamboat II	**407**	**419**
Mt. Werner		
Residential	1,741	1,741
Commercial	103	103
Combined	8	8
Total Mt. Werner	**1,852**	**1,852**
Tree Haus		
Residential	113	113
Commercial		
Combined		
Total Tree Haus	**113**	**113**
Total System	**5,488**	**5,522**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL UNITS BY CUSTOMER CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**REV**
DATE:	**07/29/16**
RANGE:	**HIST_UNITS**

Customer Class	2014	2015
Inside City		
Residential	3,035	3,140
Commercial	374	382
Combined	214	214
Senior	93	96
Total Inside City	**3,716**	**3,832**
Steamboat II		
Residential	415	416
Commercial	1	1
Combined		
Total Steamboat II	**416**	**417**
Mt. Werner		
Residential	6,172	6,112
Commercial	114	122
Combined	405	405
Total Mt. Werner	**6,691**	**6,639**
Tree Haus		
Residential	113	113
Commercial		
Combined		
Total Tree Haus	**113**	**113**
Total System	**10,936**	**11,001**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL USE BY CUSTOMER CLASS

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 07/29/16
RANGE: HISTUSE

Customer Class	2014	2015
	kgals	kgals
Inside City		
Residential	129,322	128,797
Commercial	66,378	70,941
Combined	15,928	13,647
Senior	2,452	2,673
Total Inside City	**214,080**	**216,058**
Steamboat II		
Residential	38,946	39,586
Commercial	214	132
Combined		
Total Steamboat II	**39,160**	**39,718**
Mt. Werner		
Residential	218,798	221,143
Commercial	67,595	54,812
Combined	43,843	41,195
Total Mt. Werner	**330,236**	**317,150**
Tree Haus		
Residential		4,266
Commercial		
Combined		
Total Tree Haus	**0**	**4,266**
Total System	**583,476**	**577,192**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL USE PER UNIT

FILE:	**Stmboat_WW**
SCHEDULE:	**REV**
DATE:	**07/29/16**
RANGE:	**USEPERUNIT**

Customer Class	2014	2015	2-year Average	Use
	kgals		kgals	kgals
Inside City				
Residential	3.55	3.42	3.48	3.48
Commercial	14.79	15.48	15.13	15.13
Combined	6.20	5.31	5.76	5.76
Senior	2.20	2.32	2.26	2.26
Steamboat II				
Residential	7.82	7.93	7.88	7.88
Commercial	17.83	11.00	14.41	14.41
Combined	?	?	#N/A	?
Mt. Werner				
Residential	2.95	3.02	2.98	2.98
Commercial	49.41	37.44	43.43	43.43
Combined	9.02	8.48	8.75	8.75
Tree Haus				
Residential	0.00	3.15	1.57	3.15
Commercial	?	?	#N/A	?
Combined	?	?	#N/A	?

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
HISTORICAL BILLS BY CUSTOMER CLASS

FILE: Stmboat_WW
SCHEDULE: REV
DATE: 08/15/16
RANGE: HIST_Bills

Customer Class	2011	2012	2013	2014	2015
Inside City					
Residential	31,059	31,088	28,856	31,413	31,638
Commercial	4,580	4,652	4,281	4,597	4,617
Combined	747	797	750	815	818
Senior	480	480	454	565	584
Total Inside City	**36,866**	**37,017**	**34,341**	**37,390**	**37,657**
Steamboat II					
Residential	12	12	12	12	12
Commercial	12	12	12	12	12
Combined					
Total Steamboat II	**24**	**24**	**24**	**24**	**24**
Mt. Werner					
Residential	4	4	4	4	4
Commercial	4	4	4	4	4
Combined	4	4	4	4	4
Total Mt. Werner	**12**	**12**	**12**	**12**	**12**
Tree Haus					
Residential	12	12	12	12	12
Commercial					
Combined					
Total Tree Haus	**12**	**12**	**12**	**12**	**12**
Total System	**36,914**	**37,065**	**34,389**	**37,438**	**37,705**

APPENDIX F:

Wastewater Cost of Service

STEAMBOAT SPRINGS, COLORADO		**FILE:**	**Stmboat_WW**
2016 RATE & FEE STUDY		**SCHEDULE:**	**COS**
REVENUE REQUIREMENTS		**DATE:**	**08/12/16**
COST OF SERVICE ANALYSIS - 2019 TEST YEAR		**RANGE:**	**COS_TY**

Line No.	**Description**	**2019 Test Year**
		$
	Revenue Requirements	
	Operation & Maintenance Expense	
1	Current Operations	$2,285,653
2	Total Operation & Maintenance Expense	2,285,653
	Debt Service	
3	Existing	270,148
4	Proposed	185,794
	Capital	
5	Non-Growth CIP	1,418,567
6	Total Capital Costs	1,874,509
7	**Total Revenue Requirements**	**4,160,162**
	Operating Subfund Other Inflows / Outflows	
8	Meter Sales	(7,141)
9	Interest Income	0
10	Interest Income Investments	0
11	Charges for Services	(69,369)
12	Interest	(87,260)
13	Bond / Loan Proceeds - Non Growth	0
14	Debt Service Reserve Deposit (New Debt)	0
15	Grants	0
16	Additional Cash Inflow / (Outflow)	0
17	Transfer to General Fund	0
18	Loan (To) Tap Fee Subfund	340,000
19	Total Operating Subfund Other Inflows / Outflows	176,230
20	Increase (Decrease) in Operating Reserves	80,359
21	**Total Adjustments**	**256,589**
22	**Net Cost of Service**	**$4,416,751**

STEAMBOAT SPRINGS, COLORADO | **FILE: Stmboat_WW**
2016 RATE & FEE STUDY | **SCHEDULE: COS**
COST OF SERVICE VS REVENUE AT EXIST. RATES | **DATE: 08/12/16**
COST OF SERVICE ANALYSIS - 2019 TEST YEAR | **RANGE: COS_COMPCOS**

Line No.	Customer Class	(1) 2019 Test Year Cost of Service	(2) 2019 Revenue at Existing Rates	(3) Indicated Revenue Increase
	City			
1	**Residential**	$1,482,761	$1,316,321	12.64%
2	**Commercial**	715,383	487,223	46.83%
3	**Combined**	157,676	141,471	11.45%
4	**Total City**	$2,355,820	$1,945,015	21.12%
	Wholesale			
5	**Steamboat II - Residential**	$192,898	$155,251	24.25%
6	**Steamboat II - Commercial**	1,203	796	51.13%
7	**Steamboat II - Combined**	0	0	#N/A
8	**Total Steamboat II**	$194,101	$156,047	24.39%
9	**Mt. Werner - Residential**	$1,072,445	$847,260	26.58%
10	**Mt. Werner - Commercial**	462,749	314,511	47.13%
11	**Mt. Werner - Combined**	301,242	210,172	43.33%
12	**Total Mt. Werner**	$1,836,436	$1,371,943	33.86%
13	**Tree Haus - Residential**	$30,394	$33,154	-8.32%
14	**Total Wholesale**	$2,060,931	$1,561,144	32.01%
15	**Total System**	**$4,416,751**	**$3,506,159**	**25.97%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF WASTEWATER SYSTEM ASSETS (1)
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_PLTALLO

Line No.	Description	(1) Assets	(2) CIP	(3) Total	(4) Volume	(5) BOD	(6) TSS	(7) Customer: Collection Lines	(8) Customer: Meters and Services	(9) Customer: Inflow / Infiltration Customer	(10) Customer: Billing
				$	$	$	$	$	$	$	$
1	Treatment	$21,954,640	$2,991,317	$24,945,958	$4,904,329	$7,483,787	$7,483,787	$0	$0	$5,074,054	$0
	Interceptor and Collection Lines (2)										
2	Interceptor	6,967,662	3,704,000	10,671,662	8,501,026	0	0	0	0	2,170,636	0
3	Collection Lines	7,771,943	4,336,354	12,108,297	6,618,373	0	0	3,027,074	0	2,462,850	0
4	**Total Interceptor and Collection Lines**	**14,739,604**	**8,040,354**	**22,779,958**	**15,119,399**	**0**	**0**	**3,027,074**	**0**	**4,633,485**	**0**
5	Steamboat II Lift Station	0	250,000	250,000	199,150	0	0	0	0	50,850	0
6	WSSA Lift Station	0	0	0	0	0	0	0	0	0	0
7	**Subtotal of All Above**	**36,694,244**	**11,281,671**	**47,975,916**	**20,222,878**	**7,483,787**	**7,483,787**	**3,027,074**	**0**	**9,758,389**	**0**
	General Plant										
8	Miscellaneous / Admin	1,682,340	0	1,682,340	705,837	263,804	263,804	106,704	0	342,191	0
9	**Total General Plant**	**1,682,340**	**0**	**1,682,340**	**705,837**	**263,804**	**263,804**	**106,704**	**0**	**342,191**	**0**
10	**Total Wastewater System Assets**	**$38,376,585**	**$11,281,671**	**$49,658,256**	**$20,928,715**	**$7,747,591**	**$7,747,591**	**$3,133,779**	**$0**	**$10,100,580**	**$0**
11	*Percent of Total*			*100.0%*	*42.1%*	*15.6%*	*15.6%*	*6.3%*	*0.0%*	*20.3%*	*0.0%*
12	**Annual Capital Costs**			**$1,874,509**	**$790,022**	**$292,457**	**$292,457**	**$118,294**	**$0**	**$381,279**	**$0**
	Allocation of Functions to Service Demand Categories										
13	Treatment			100.00%	19.66%	30.00%	30.00%			20.34%	
	Sewer Lines										
14	Interceptor			100.00%	79.66%					20.34%	
15	Collection Lines			100.00%	54.66%			25.00%		20.34%	
16	Steamboat II Lift Station			100.00%	79.66%					20.34%	
17	WSSA Lift Station			100.00%	79.66%					20.34%	
18	**Total Interceptor / Collector Lines**										
	General Plant										
19	Miscellaneous / Admin			100.00%	41.96%	15.68%	15.68%	6.34%	0.00%	20.34%	0.00%

(1) Existing wastewater system assets original cost by functional designation.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CAPITAL IMPROVEMENT PROJECTS
CUMULATIVE CIP BY FUNCTION CONSTRUCTED - INFLATED $'s

FILE: Stmboat_WW
SCHEDULE: CIP
DATE: 08/12/16
RANGE: CIP_CUM

Line No.	DESCRIPTION	Function	Estimated 2016	Projected 2017	2018	2019	2020	2021	2022	2023	2024	2025	Test Year
1	**Non-Growth Related**												
2	Treatment and Disposal	1	$ 221,576	$ 447,454	$ 687,089	$ 941,317	$ 1,595,669	$ 1,881,804	$ 25,067,286	$ 25,395,650	$ 25,733,866	$ 26,082,227	$ 941,317
3	Interceptor	2	35,000	1,295,000	2,592,800	2,592,800	2,592,800	2,592,800	2,592,800	2,592,800	2,592,800	2,592,800	2,592,800
4	Collection System	3	1,060,000	2,120,000	3,211,800	4,336,354	5,494,645	6,687,684	7,916,514	9,182,210	10,485,876	11,828,652	4,336,354
5	Steamboat II Lift Station	4	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
6	Misc. / Admin	5	-	-	-	-	-	-	-	-	-	-	0
7	City Lift Station	6	-	-	-	-	-	-	-	-	-	-	0
8	Subtotal		1,391,576	3,937,454	6,566,689	7,945,471	9,758,113	11,237,288	35,651,600	37,245,660	38,887,542	40,578,680	7,945,471
9	**Growth-Related**												
10	Treatment and Disposal	1	50,000	2,050,000	2,050,000	2,050,000	2,146,160	2,146,160	2,146,160	2,146,160	2,146,160	2,146,160	2,050,000
11	Interceptor	2	15,000	555,000	1,111,200	1,111,200	1,111,200	1,111,200	1,111,200	1,111,200	1,111,200	1,111,200	1,111,200
12	Collection System	3	-	-	-	-	-	-	-	-	-	-	0
13	Steamboat II Lift Station	4	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000
14	Misc. / Admin	5	-	-	-	-	-	-	-	-	-	-	0
15	City Lift Station	6	-	-	-	-	-	-	-	-	-	-	0
16	Subtotal		240,000	2,780,000	3,336,200	3,336,200	3,432,360	3,432,360	3,432,360	3,432,360	3,432,360	3,432,360	3,336,200
17	**Non-Growth and Growth-Related**												
18	Treatment and Disposal	1	271,576	2,497,454	2,737,089	2,991,317	3,741,829	4,027,964	27,213,446	27,541,810	27,880,026	28,228,387	2,991,317
19	Interceptor	2	50,000	1,850,000	3,704,000	3,704,000	3,704,000	3,704,000	3,704,000	3,704,000	3,704,000	3,704,000	3,704,000
20	Collection System	3	1,060,000	2,120,000	3,211,800	4,336,354	5,494,645	6,687,684	7,916,514	9,182,210	10,485,876	11,828,652	4,336,354
21	Steamboat II Lift Station	4	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
22	Misc. / Admin	5	-	-	-	-	-	-	-	-	-	-	0
23	City Lift Station	6	-	-	-	-	-	-	-	-	-	-	0
24	Total		$ 1,631,576	$ 6,717,454	$ 9,902,889	$ 11,281,671	$ 13,190,473	$ 14,669,648	$ 39,083,960	$ 40,678,020	$ 42,319,902	$ 44,011,040	$ 11,281,671

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
WATER SYSTEM ASSET SUMMARY

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: ASSET_SUM

Function Code	Functional Category	Asset Count	Original Cost	RCN
1	Treatment and Disposal	30	$ 21,954,640	$ 36,627,030
2	Interceptor	14	6,967,662	11,329,081
3	Local Collection	53	7,771,943	12,596,764
4	Steamboat II Lift Station	0	0	0
5	Miscellaneous / Admin	13	1,682,340	1,920,484
6	City Lift Station	0	0	0
	Total		$ 38,376,585	$ 62,473,359

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
O&M ALLOCATIONS TO FUNCTIONAL COSTS
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_OMFUNC

Line No.	Description	(1) Total	(2) Treatment	(3) Interceptor	(4) Collection	(5) Meter Services	(6) Administration
1	Wastewater Treatment	$ 1,238,700	$ 1,238,700	$ -	$ -	$ -	$ -
2	Wastewater Collection	257,497	0	97,849	159,648	0	0
3	WW Meter Reading/Billing	133,145	0	0	0	66,573	66,573
4	Wastewater Administration	656,311	498,958	39,414	64,307	26,816	26,816
5	Total O&M	$ 2,285,653	$ 1,737,657	$ 137,263	$ 223,956	$ 93,389	$ 93,389
	Allocations to Functions						
6	Wastewater Treatment	100.0%	100.00%				
7	Wastewater Collection	100.0%		38.00%	62.00%		
8	WW Meter Reading/Billing	100.0%				50.00%	50.00%
9	Wastewater Administration	100.0%	76.02%	6.01%	9.80%	4.09%	4.09%
10	Weighted Average	100.0%	76.02%	6.01%	9.80%	4.09%	4.09%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_OMALLO

Line No.	Description	(1) Total	(2) Volume	(3) BOD	(4) TSS	(5) Customer: Local Collection Lines	(6) Customer: Meters and Services	(7) Customer: Inflow / Infiltration Customer	(8) Customer: Billing/ Customer Service
		$	$	$	$	$	$	$	$
1	Treatment	100.00%	19.66%	30.00%	30.00%			20.34%	
2	Interceptor	100.00%	79.66%					20.34%	
3	Collection	100.00%	29.66%			50.00%		20.34%	
4	Meters & Services	100.00%	0.00%				50.00%		50.00%
5	Administration	100.00%	23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%
6	Treatment	$1,737,657	$341,620	$521,297	$521,297	$0	$0	$353,443	$0
7	Interceptor	137,263	109,344	0	0	0	0	27,920	0
8	Collection	223,956	66,425	0	0	111,978	0	45,553	0
9	Meters & Services	93,389	0	0	0	0	46,694	0	46,694
10	Administration	93,389	22,040	22,207	22,207	4,770	1,989	18,186	1,989
11	**Total Operation and Maintenance Expense**	**$2,285,653**	**$539,429**	**$543,504**	**$543,504**	**$116,748**	**$48,683**	**$445,101**	**$48,683**
12	*Percent of Total*	*100.0%*	*23.60%*	*23.78%*	*23.78%*	*5.11%*	*2.13%*	*19.47%*	*2.13%*
	Total O&M Excluding Administration								
13	*Amount*	$2,192,265	$517,389	$521,297	$521,297	$111,978	$46,694	$426,915	$46,694
14	*Percent*	*100.00%*	*23.60%*	*23.78%*	*23.78%*	*5.11%*	*2.13%*	*19.47%*	*2.13%*

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ALLOCATION OF ADJUSTMENTS TO REVENUE REQUIREMENTS
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_REVADJ

Line No.	Description		(1) Total	(2) Volume	(3) BOD	(4) TSS	(5) Customer: Local Collection Lines	(6) Customer: Meters and Services	(7) Customer: Inflow / Infiltration Customer	(8) Customer: Billing/ Customer Service
			$	$	$	$	$	$		$
1	Meter Sales		(7,141)	(1,685)	(1,698)	(1,698)	(365)	(152)	(1,391)	(152)
2	Interest Income		0	0	0	0	0	0	0	0
3	Interest Income Investments		0	0	0	0	0	0	0	0
4	Charges for Services		(69,369)	(16,372)	(16,495)	(16,495)	(3,543)	(1,478)	(13,509)	(1,478)
5	Interest		(87,260)	(36,776)	(13,614)	(13,614)	(5,507)	0	(17,749)	0
6	Bond / Loan Proceeds - Non Growth		0	0	0	0	0	0	0	0
7	Debt Service Reserve Deposit (New Debt)		0	0	0	0	0	0	0	0
8	Grants		0	0	0	0	0	0	0	0
9	Additional Cash Inflow / (Outflow)		0	0	0	0	0	0	0	0
10	Transfer to General Fund		0	0	0	0	0	0	0	0
11	Loan (To) Tap Fee Subfund		340,000	143,295	53,046	53,046	21,456	0	69,157	0
12	Increase (Decrease) in Operating Reserves		80,359	18,965	19,108	19,108	4,105	1,712	15,649	1,712
13	Total		256,589	107,427	40,347	40,347	16,146	82	52,157	82
14	Weighted Average Percent - Adjustment to Revenue Requirements			41.9%	15.7%	15.7%	6.3%	0.0%	20.3%	0.0%
15	**Allocation to Service Categories**									
16	Meter Sales	O&M		23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%
17	Interest Income	O&M		23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%
18	Interest Income Investments	O&M		23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%
19	Charges for Services	O&M		23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%
20	Interest	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
21	Bond / Loan Proceeds - Non Growth	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
22	Debt Service Reserve Deposit (New Debt)	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
23	Grants	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
24	Additional Cash Inflow / (Outflow)	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
25	Transfer to General Fund	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
26	Loan (To) Tap Fee Subfund	Capital		42.15%	15.60%	15.60%	6.31%	0.00%	20.34%	0.00%
27	Increase (Decrease) in Operating Reserves	O&M		23.60%	23.78%	23.78%	5.11%	2.13%	19.47%	2.13%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DEVELOPMENT OF INFILTRATION/INFLOW (I/I)
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_FLOW

Line No.	Customer Class	(1) Accounts	(2) Billed Volume	(3) Customer Related (1)	(4) Volume Related (1)	(5) Total I/I	(6) Total Flow (Billed Vol and Volume Related I/I)	(7) Total Treated Volume	(8) Percent I/I
	Inside City								
1	**Residential**	2,741	136,482	96,937	45,078	142,015	181,560	278,497	51%
2	**Commercial**	401	72,275	14,182	23,871	38,053	96,146	110,328	34%
3	**Combined**	72	15,340	2,546	5,067	7,613	20,407	22,953	33%
4	**Senior**	49	2,710	1,733	895	2,628	3,605	5,338	49%
5	**Total Inside City**	3,263	226,807	115,398	74,910	190,308	301,717	417,115	46%
	Steamboat II								
6	**Residential**	418	39,313	20,608	20,608	41,216	59,921	80,529	51%
7	**Commercial**	1	173	36	59	96	232	269	36%
8	**Combined**	0	0	0	0	0	0	0	#DIV/0!
9	**Total Steamboat II (2)**	419	39,486	20,644	20,667	41,312	60,153	80,798	51%
	Mt. Werner								
10	**Residential**	1,789	224,781	63,269	74,241	137,510	299,022	362,291	38%
11	**Commercial**	107	65,660	3,784	21,686	25,470	87,346	91,130	28%
12	**Combined**	8	43,779	283	14,459	14,742	58,238	58,521	25%
13	**Total Mt. Werner**	1,904	334,220	67,336	110,387	177,723	444,607	511,943	35%
	Tree Haus								
14	**Residential**	113	4,271	3,996	1,411	5,407	5,682	9,678	56%
15	**Commercial**	0	0	0	0	0	0	0	#DIV/0!
16	**Combined**	0	0	0	0	0	0	0	#DIV/0!
17	**Total Tree Haus**	113	4,271	3,996	1,411	5,407	5,682	9,678	56%
18	**Total**	5,699	604,784	207,375	207,375	414,750	812,159	1,019,534	41%

(1) 50% of I/I assumed to be customer related. 50% assumed to by volume related.
(2) Wastewater flow meter shows approximately 80 million gallons of wastewater to the City treatment plant.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
ESTIMATED UNITS OF SERVICE
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_SERVUNITS

Line No.	Customer Class	(1) Billed	(2) Flow Volume I/I	(3) Total	(4) BOD Strength	(5) BOD Pounds	(6) TSS Strength	(7) TSS Pounds	(8) Units	(9) Customer I/I	(10) Bills	(11) Eq. Meters (Meter Cap.)	(12) Eq. Meters (Meter Cost)
		kgal	kgal	kgal	mg / l	lbs	mg / l	lbs		kgal			
	Inside City												
1	**Residential**	136,482	45,078	181,560	250	284,565	250	284,565	3,264	96,937	32,890	2,905	3,003
2	**Commercial**	72,275	23,871	96,146	656	395,336	687	414,352	398	14,182	4,801	664	802
3	**Combined**	15,340	5,067	20,407	656	83,908	687	87,944	222	2,546	850	139	181
4	**Senior**	2,710	895	3,605	250	5,650	250	5,650	100	1,733	608	51	51
5	**Total Inside City**	**226,807**	**74,910**	**301,717**		**769,460**		**792,512**	**3,984**	**115,398**	**39,149**	**3,759**	**4,037**
	Steamboat II												
6	**Residential**	39,313	20,608	59,921	250	81,968	250	81,968	416	20,608	12	20	60
7	**Commercial**	173	59	232	656	946	687	992	1	36	12	0	0
8	**Combined**	0	0	0	656	0	687	0	0	0	0	0	0
9	**Total Steamboat II (2)**	**39,486**	**20,667**	**60,153**		**82,914**		**82,959**	**417**	**20,644**	**24**	**20**	**60**
	Mt. Werner												
10	**Residential**	224,781	74,241	299,022	250	468,668	250	468,668	6,276	63,269	4	1	1
11	**Commercial**	65,660	21,686	87,346	656	359,153	687	376,428	126	3,784	4	1	1
12	**Combined**	43,779	14,459	58,238	656	239,466	687	250,985	417	283	4	2	6
13	**Total Mt. Werner**	**334,220**	**110,387**	**444,607**		**1,067,288**		**1,096,081**	**6,819**	**67,336**	**12**	**4**	**8**
	Tree Haus												
14	**Residential**	4,271	1,411	5,682	250	8,905	250	8,905	113	3,996	12	1	1
15	**Commercial**	0	0	0	656	0	687	0	0	0	0	0	0
16	**Combined**	0	0	0	656	0	687	0	0	0	0	0	0
17	**Total Tree Haus**	**4,271**	**1,411**	**5,682**		**8,905**		**8,905**	**113**	**3,996**	**12**	**1**	**1**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DEVELOPMENT OF UNIT COSTS OF SERVICE
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_ULTUNITS

Line No.	Description	(1) Total	(2) Flow	(3) BOD	(4) TSS	(6) Customer: Local Collection Lines	(7) Customer: Meters and Services	(8) Customer: Inflow / Infiltration Customer	(9) Customer: Billing/ Customer Service
		$	$	$	$	$	$	$	$
	Revenue Requirements - $								
1	Treatment	$1,737,657	$341,620	$521,297	$521,297	$0	$0	$353,443	$0
2	Interceptor	137,263	109,344	0	0	0	0	27,920	0
3	Collection	223,956	66,425	0	0	111,978	0	45,553	0
4	Meters & Services	93,389	0	0	0	0	46,694	0	46,694
5	Administration	93,389	22,040	22,207	22,207	4,770	1,989	18,186	1,989
6	Total Operating Costs	2,285,653	539,429	543,504	543,504	116,748	48,683	445,101	48,683
7	Treatment	941,664	185,130	282,499	282,499	0	0	191,536	0
8	Interceptor	402,836	320,898	0	0	0	0	81,938	0
9	Collection Lines	457,066	249,832	0	0	114,267	0	92,968	0
10	Steamboat II Lift Station	9,437	7,518	0	0	0	0	1,920	0
11	WSSA Lift Station	0	0	0	0	0	0	0	0
12	Miscellaneous / Admin	63,505	26,644	9,958	9,958	4,028	0	12,917	0
13	Total Capital Costs	1,874,509	790,021	292,457	292,457	118,294	0	381,279	0
14	Treatment	2,679,322	526,750	803,797	803,797	0	0	544,979	0
15	Interceptor	540,099	430,242	0	0	0	0	109,857	0
16	Collection	681,022	316,256	0	0	226,244	0	138,521	0
17	Meters & Services	93,389	0	0	0	0	46,694	0	46,694
18	Steamboat II Lift Station	9,437	7,518	0	0	0	0	1,920	0
19	WSSA Lift Station	0	0	0	0	0	0	0	0
18	Administration	156,894	48,684	32,165	32,165	8,798	1,989	31,103	1,989
20	**Total Revenue Requirements**	4,160,162	1,329,450	835,961	835,961	235,042	48,683	826,380	48,683
21	**Adjustment to Revenue Requirements**	256,589	107,427	40,347	40,347	16,146	82	52,157	82
22	**Net Cost of Service**	4,416,751	1,436,877	876,309	876,309	251,189	48,765	878,537	48,765
23	All Customer Costs	2,929,604	575,434	835,961	835,961	8,798	48,683	576,082	48,683
24	Interceptor	540,099	430,242	0	0	0	0	109,857	0
25	Steamboat II Lift Station	9,437	7,518	0	0	0	0	1,920	0
26	City Only	681,022	316,256	0	0	226,244	0	138,521	0
27	**Total Revenue Requirements**	4,160,162	1,329,450	835,961	835,961	235,042	48,683	826,380	48,683
28	All Customer Costs	180,691	75,650	28,413	28,413	11,370	58	36,729	58
29	Interceptor	33,312	13,947	5,238	5,238	2,096	11	6,771	11
30	Steamboat II Lift Station	582	244	92	92	37	0	118	0
31	City Only	42,004	17,586	6,605	6,605	2,643	13	8,538	13
32	**Adjustment to Revenue Requirements**	256,589	107,427	40,347	40,347	16,146	82	52,157	82
33	All Customer Costs	3,110,295	651,085	864,374	864,374	20,168	48,741	612,812	48,741
34	Interceptor	573,411	444,189	5,238	5,238	2,096	11	116,628	11
35	Steamboat II Lift Station	10,019	7,761	92	92	37	0	2,038	0
36	City Only	723,026	333,842	6,605	6,605	228,887	13	147,059	13
37	Net Cost of Service	$4,416,751	$1,436,877	$876,309	$876,309	$251,189	$48,765	$878,537	$48,765
38	Units of Service								
39	All Customer Costs		812,159	1,928,566	1,980,457	11,333	4,106	207,375	39,197
40	Interceptor		752,006	1,845,652	1,897,498	10,916	4,046	186,731	39,173
41	Steamboat II Lift Station		60,153	82,914	82,959	417	60	20,644	24
42	City Only		301,717	769,460	792,512	3,984	4,037	115,398	39,149
43	Unit Costs of Service								
44	All Customer Costs		$0.802	$0.448	$0.436	$1.780	$11.871	$2.955	$1.243
45	Interceptor		0.591	0.003	0.003	0.192	0.003	0.625	0.000
46	Steamboat II Lift Station		0.129	0.001	0.001	0.088	0.003	0.099	0.008
47	City Only		1.106	0.009	0.008	57.452	0.003	1.274	0.000
48	City Customers — All Costs Except Steamboat II Lift Station		2.499	0.460	0.448	59.423	11.877	4.854	1.244
49	Steamboat II — All Costs Excluding Interceptor and Collection		0.931	0.449	0.438	1.867	11.874	3.054	1.251
50	Mt. Werner / Tree Haus — All Costs Excluding Collection and S II Lift Station		1.392	0.451	0.439	1.972	11.873	3.580	1.244

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
SEPTAGE HAULER RATE DEVELOPMENT

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_SEPTAGE

Line No.	Description	(1) Total	(2) Flow	(3) BOD	(4) TSS	(6) Customer: Local Distribution Lines	(7) Customer: Meters and Services	(8) Customer: Inflow / Infiltration Customer	(9) Customer: Billing/ Customer Service
1	Treatment	$2,679,322	$526,750	$803,797	$803,797	$0	$0	$544,979	$0
2	All Customer Costs	2,929,604	575,434	835,961	835,961	8,798	48,683	576,082	48,683
3	Percent	91.5%	91.5%	96.2%	96.2%	0.0%	0.0%	94.6%	0.0%
4	Total Adjustment to Revenue Requirements	180,691	75,650	28,413	28,413	11,370	58	36,729	58
5	Percent of Total Adjment to Rev. Req.	158,635	69,250	27,319	27,319	0	0	34,746	0
6	Treatment Cost	2,679,322	526,750	803,797	803,797	0	0	544,979	0
7	Adjustment to Rev. Req. - Treatment	158,635	69,250	27,319	27,319	0	0	34,746	0
8	Adjusted Treatment Cost	$2,837,957	$596,000	$831,116	$831,116	$0	$0	$579,725	$0
9	Treatment Customer Costs - Units of Service		812,159	1,928,566	1,980,457	11,333	4,106	207,375	39,197
10	Unit Cost - Treatment		$0.734	$0.431	$0.420	$0.000	$0.000	$2.796	$0.000
11	Units		Kgal	mg / l	mg / l				
12	Units of Service - Septage Hauler (1)		1	4,000	4,000				
13	Units of Service - Septage Hauler per 1,000 gallon		1.00	33.36	33.36			0.00	
14	Unit Cost		$0.734	$0.431	$0.420	$0.000	$0.000	$2.796	$0.000
15	Cost per kgal	$29.110	$0.734	$14.376	$14.000	$0.000	$0.000	$0.000	
16	Cost per gallon	0.0291							
17	Surcharge for Dump Station Recovery (2)	0.0033							
18	Total Rate per gallon	$0.0324							

(1) Septage Hauler customer strength per City staff.
(2) $40,000 Septage Hauler Dump Station amortized over 20 years for annual recovery spead over 600,000 gallons or 2009 Septage Hauler discharges

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO CUSTOMER CLASSES - INSIDE CITY
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_CUST_ALLOC_CT

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						Customer			
Line No.	Customer Class	Total	Flow	BOD	TSS	Local Collection Lines	Meters and Services	Inflow / Infiltration Customer	Billing/ Customer Service
1	**Unit Costs of Service - $/unit**		$2.499	$0.460	$0.448	$59.423	$11.877	$4.854	$1.244
	Residential								
2	Units		181,560	284,565	284,565	3,264	3,003	96,937	32,890
3	Cost of Service - $	$1,452,911	$453,684	$130,791	$127,356	$193,958	$35,666	$470,537	$40,919
	Commercial								
4	Units		96,146	395,336	414,352	398	802	14,182	4,801
5	Cost of Service - $	$715,383	$240,252	$181,703	$185,442	$23,650	$9,525	$68,838	$5,973
	Combined								
6	Units		20,407	83,908	87,944	222	181	2,546	850
7	Cost of Service - $	$157,676	$50,992	$38,566	$39,359	$13,192	$2,150	$12,360	$1,057
	Senior								
8	Units		3,605	5,650	5,650	100	51	1,733	608
9	Cost of Service - $	$29,850	$9,008	$2,597	$2,529	$5,942	$606	$8,412	$756
10	**Total City - $**	**$2,355,820**	**$753,936**	**$353,657**	**$354,686**	**$236,742**	**$47,947**	**$560,147**	**$48,705**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO STEAMBOAT II
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_CUST_ALLOC_SI

Line No.	Customer Class	(1) Total	(2) Flow	(3) BOD	(4) TSS	(5) Customer: Local Collection Lines	(6) Customer: Meters and Services	(7) Customer: Inflow / Infiltration Customer	(8) Customer: Billing/ Customer Service
1	**Unit Costs of Service - $/unit**		$0.931	$0.449	$0.438	$1.867	$11.874	$3.054	$1.251
	Steamboat II - Residential								
2	Units		59,921	81,968	81,968	416	60	20,608	12
3	Cost of Service - $	$192,898	$55,768	$36,828	$35,865	$777	$712	$62,933	$15
	Steamboat II - Commercial								
4	Units		232	946	992	1	0	36	12
5	Cost of Service - $	$1,203	$216	$425	$434	$2	$0	$111	$15
	Steamboat II - Combined								
6	Units		0	0	0	0	0	0	0
7	Cost of Service - $	$0	$0	$0	$0	$0	$0	$0	$0
8	**Total Steamboat II - $**	**$194,101**	**$55,984**	**$37,253**	**$36,299**	**$779**	**$712**	**$63,044**	**$30**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO MT. WERNER
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_CUST_ALLOC_MW

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
						Customer			
Line No.	Customer Class	Total	Flow	BOD	TSS	Local Collection Lines	Meters and Services	Inflow / Infiltration Customer	Billing/ Customer Service
1	**Unit Costs of Service - $/unit**		$1.392	$0.451	$0.439	$1.972	$11.873	$3.580	$1.244
	Mt. Werner - Residential								
2	Units		299,022	468,668	468,668	6,276	1	63,269	4
3	Cost of Service - $	$1,072,445	$416,341	$211,385	$205,845	$12,374	$12	$226,483	$5
	Mt. Werner - Commercial								
4	Units		87,346	359,153	376,428	126	1	3,784	4
5	Cost of Service - $	$462,749	$121,616	$161,990	$165,332	$248	$12	$13,546	$5
	Mt. Werner - Combined								
6	Units		58,238	239,466	250,985	417	6	283	4
7	Cost of Service - $	$301,242	$81,088	$108,007	$110,236	$822	$71	$1,013	$5
8	**Total Mt. Werner**	**$1,836,436**	**$619,045**	**$481,382**	**$481,413**	**$13,444**	**$95**	**$241,042**	**$15**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO TREE HAUS
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/15/16
RANGE: COS_CUST_ALLOC_TH

Line No.	Customer Class	(1) Total	(2) Flow	(3) BOD	(4) TSS	(5) Customer: Local Collection Lines	(6) Customer: Meters and Services	(7) Customer: Inflow / Infiltration Customer	(8) Customer: Billing/ Customer Service
1	**Unit Costs of Service - $/unit**		$1.392	$0.451	$0.439	$1.972	$11.873	$3.580	$1.244
	Tree Haus - Residential								
2	Units		5,682	8,905	8,905	113	1	3,996	12
3	Cost of Service - $	$30,394	$7,911	$4,016	$3,911	$223	$12	$14,306	$15
	Tree Haus - Commercial								
4	Units		0	0	0	0	0	0	0
5	Cost of Service - $	$0	$0	$0	$0	$0	$0	$0	$0
	Tree Haus - Combined								
6	Units		0	0	0	0	0	0	0
7	Cost of Service - $	$0	$0	$0	$0	$0	$0	$0	$0
8	**Total Tree Haus**	**$30,394**	**$7,911**	**$4,016**	**$3,911**	**$223**	**$12**	**$14,306**	**$15**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
DISTRIBUTION OF COSTS TO CUSTOMER CLASSES - SUMMARY
COST OF SERVICE ANALYSIS - 2019 TEST YEAR

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: COS_CUST_ALLOC_SUM

Line No.	Customer Class	(1) Total	(2) Flow	(3) BOD	(4) TSS	(5) Customer: Local Collection Lines	(6) Customer: Meters and Services	(7) Customer: Inflow / Infiltration Customer	(8) Customer: Billing/ Customer Service
	Total Costs								
1	City	$2,355,820	$753,936	$353,657	$354,686	$236,742	$47,947	$560,147	$48,705
2	Steamboat II	194,101	55,984	37,253	36,299	779	712	63,044	30
3	Mt. Werner	1,836,436	619,045	481,382	481,413	13,444	95	241,042	15
4	Tree Haus	30,394	7,911	4,016	3,911	223	12	14,306	15
5	**Total System**	**$4,416,751**	**$1,436,876**	**$876,308**	**$876,309**	**$251,188**	**$48,766**	**$878,539**	**$48,765**

STEAMBOAT SPRINGS, COLORADO | **FILE:** | **Stmboat_WW**
2016 RATE & FEE STUDY | **SCHEDULE:** | **COS**
INPUT - SYSTEM LINE FEET BY DIAMETER SIZE (1) | **DATE:** | **08/12/16**
COST OF SERVICE ANALYSIS - 2019 TEST YEAR | **RANGE:** | **COS_LINESIZE**

Diameter (Inches)	Pipe Length, feet	Inch-Feet	Percent
4	2,109	8,436	0.25%
6	11,015	66,090	1.93%
8	225,677	1,805,416	52.82%
10	12,426	124,260	3.64%
12	9,076	108,912	3.19%
15	8,136	122,040	3.57%
16	566	9,056	0.26%
18	2,349	42,282	1.24%
21	8,271	173,691	5.08%
24	14,592	350,208	10.25%
27	5,504	148,608	4.35%
30	15,306	459,180	13.43%
Total	315,027	3,418,179	100.00%

City Collection	**Less Than 15"**	**2,113,114**	**62.0%**
Interceptor	**15" and Greater**	**1,305,065**	**38.0%**
		3,418,179	**100.0%**

(1) City of Steamboat Springs Water and Wastewater Pipeline Inventory Data as of 12/31/15 provided by Greg Neppl.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
WWTP PLANT LOADINGS

FILE: Stmboat_WW
SCHEDULE: COS
DATE: 08/12/16
RANGE: WWTPHIST

Line No.	Year	Flow - MGD	Annual Average - Mg / L BOD	TSS	NH3-N	Influent Loadings - Pounds per Day BOD	TSS	NH3-N	Influent Loadings - Annual Pounds BOD	TSS	NH3-N
	2011	2.926	167	193	26.3	4,065.0	4,698.0	641.8	1,483,725	1,714,770	234,255
	2012	2.014	247	209	24.6	4,143.0	3,507.0	414.0	1,512,195	1,280,055	151,110
	2013	2.631	206	240	20.3	4,526.0	5,270.0	445.0	1,651,990	1,923,550	162,425
	2014	2.843	224	219	22.3	5,303.0	5,201.0	529.0	1,935,595	1,898,365	193,085
	2015	2.619	230	248	31.3	5,029.0	5,409.0	683.0	1,835,585	1,974,285	249,295
	Use	2.731	227	233	22.3	5166	5305	507.4	1,885,590	1,936,325	185,219

APPENDIX G:

Wastewater Rate Design Alternatives

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_CTY_RES**

Inside City - Residential				**$**
Total Class Cost of Service				**1,452,911**
	Units	Monthly Service Charge $	Revenue $	
	3,264	$37.29	1,460,575	
Total	**3,264**		**1,460,575**	1,460,575
Revenue Surplus (Deficiency)				7,664

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/15/16**
RANGE:	**ALT1_CTY_COM**

Inside City - Commercial				**$**
Total Class Cost of Service				**715,383**
	Units	Monthly Service Charge $	Revenue $	
	4,801	$31.92	153,248	
Total	**4,801**		**153,248**	153,248
Volume Rate Revenue Required				**562,135**
Calculated Volume Rate ($ per CF)				
	Volume	Volume Rate	Rate Revenue	
Total	**72,275**	$7.57	**547,122**	547,122
Total Revenue				**700,370**
Revenue Surplus (Deficiency)				(15,013)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_CTY_COB**

Inside City - Combined				**$**
Total Class Cost of Service				**157,676**
	Bills/Units (1)	Monthly Service Charge $	Revenue $	
	850	31.92	27,132	
	222	37.29	99,341	
Total			**126,473**	126,473
Volume Rate Revenue Required				**31,203**
Calculated Volume Rate ($ per CF)				
	Volume	Volume Rate	Rate Revenue	
Total	**15,340**	$7.57	**46,775**	**46,775**
Total Revenue				**173,248**
Revenue Surplus (Deficiency)				15,572

(1) 222 dwelling units used to apply the residential fixed charge, multiplied by twelve, and 850 bills used to apply the Commercial fixed charge. Units used for the residential portion as more than one unit may be associated with a residential account.

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: **Stmboat_WW**
SCHEDULE: **RATE - ALT 1**
DATE: **08/15/16**
RANGE: **ALT1_CTY_SEN**

Inside City - Low Income Senior				**$**
Total Class Cost of Service				**29,850**
	Units	Monthly Service Charge $	Revenue $	
	100	$18.65	22,374	
Total	**100**		**22,374**	22,374
Revenue Surplus (Deficiency)				(7,476)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/15/16**
RANGE:	**ALT1_SII_RES**

Steamboat II - Residential				**$**
Total Class Cost of Service				**192,898**
	Units	Monthly Service Charge $	Revenue $	
	416	$38.70	193,190	
Total	**416**		**193,190**	193,190
Revenue Surplus (Deficiency)				292

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_SII_COM**

Steamboat II - Commercial				**$**
Total Class Cost of Service				**1,203**
	Units	Monthly Service Charge $	Revenue $	
	1	$0.00	0	
Total	**1**		**0**	0
Volume Rate Revenue Required				**1,203**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**173**	$6.93	**1,199**	**1,199**
Total Revenue				**1,199**
Revenue Surplus (Deficiency)				(4)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_MTW_RES**

Mt. Werner - Residential				**$**
Total Class Cost of Service				**1,072,445**
	Units	Monthly Service Charge $	Revenue $	
	6,276	$14.25	1,073,196	
Total	**6,276**		**1,073,196**	1,073,196
Volume Rate Revenue Required				**(751)**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**224,781**	$0.00	**0**	**0**
Total Revenue				**1,073,196**
Revenue Surplus (Deficiency)				751

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_MTW_COM**

Mt. Werner - Commercial

				$
Total Class Cost of Service				**462,749**
	Units	Monthly Service Charge $	Revenue $	
	126	$0.00	0	
Total	**126**		**0**	0
Volume Rate Revenue Required				**462,749**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**65,660**	$6.98	**458,307**	**458,307**
Total Revenue				**458,307**
Revenue Surplus (Deficiency)				(4,442)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/12/16**
RANGE:	**ALT1_MTW_COB**

Mt. Werner - Combined				**$**
Total Class Cost of Service				**301,242**
	Units	Monthly Service Charge $	Revenue $	
	417	$14.25	596	
Total	**417**		**596**	596
Volume Rate Revenue Required				**300,646**
Calculated Volume Rate ($ per CF)				
	Volume	Volume Rate	Rate Revenue	
Total	**43,779**	$6.98	**305,577**	**305,577**
Total Revenue				**306,173**
Revenue Surplus (Deficiency)				4,931

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 1**
DATE:	**08/15/16**
RANGE:	**ALT1_TRE_RES**

Tree Haus - Residential				**$**
Total Class Cost of Service				**30,394**
	Units	Monthly Service Charge $	Revenue $	
	113	$22.42	30,402	
Total	**113**		**30,402**	30,402
Volume Rate Revenue Required				**(8)**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**4,271**	$0.00	**0**	**0**
Total Revenue				**30,402**
Revenue Surplus (Deficiency)				8

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_WW
SCHEDULE: RATES_ALT2
DATE: 08/15/16
RANGE: ALT1_SUM

		(1)	(2)	(3)	(4)	(5)	(6)
Line No.	**Customer Class**	**Cost of Service**	**Service Charge**	**Volume Charge**	**Total**	**Difference $**	**Difference %**
	City						
1	Residential	$1,482,761	$1,482,949	$0	$1,482,949	$188	0.0%
2	Commercial	715,383	153,248	547,122	700,370	(15,013)	-2.1%
3	Combined	157,676	126,473	46,775	173,248	15,572	9.9%
4	**Total City**	**2,355,820**	**1,762,669**	**593,897**	**2,356,566**	**746**	**0.0%**
	Wholesale						
5	Steamboat II - Residential	192,898	193,190		193,190	292	0.2%
6	Steamboat II - Commercial	1,203	0	1,199	1,199	(4)	-0.3%
7	Steamboat II - Combined	0			0	0	0.0%
8	Mt. Werner - Residential	1,072,445	1,073,196	0	1,073,196	751	0.1%
9	Mt. Werner - Commercial	462,749	0	458,307	458,307	(4,442)	-1.0%
10	Mt. Werner - Combined	301,242	596	305,577	306,173	4,931	1.6%
11	Tree Haus - Residential	30,394	30,402	0	30,402	8	0.0%
12	**Total**	**2,060,931**	**1,297,384**	**765,083**	**2,062,467**	**1,536**	**0.1%**
13	**Total System**	**4,416,751**	**3,060,053**	**1,358,980**	**4,419,033**	**2,282**	**0.1%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: **Stmboat_WW**
SCHEDULE: **RATE - ALT 2**
DATE: **08/12/16**
RANGE: **ALT2_CTY_RES**

Inside City - Residential				**$**
Total Class Cost of Service				**1,452,911**
	Units	Monthly Service Charge $	Revenue $	
	3,264	$37.29	1,460,575	
Total	**3,264**		**1,460,575**	1,460,575
Revenue Surplus (Deficiency)				7,664

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_CTY_COM**

Inside City - Commercial	**$**
Total Class Cost of Service	**715,383**

Meter Size	Bills	Monthly Service Charge	Revenue	
inches		$	$	
3/4"	3,077	$15.87	$48,836	
1"	798	25.72	20,531	
1 1/2"	405	52.23	21,148	
2"	393	80.07	31,494	
3"	93	168.02	15,550	
4"	35	287.45	9,976	
6"	0	627.17	0	
8"	0	839.52	0	
Total	**4,801**		**147,536**	147,536
Volume Rate Revenue Required				**567,847**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**72,275**	$7.57	**547,122**	547,122
Total Revenue				**694,658**
Revenue Surplus (Deficiency)				(20,725)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_CTY_COB**

Inside City - Combined	**$**
Total Class Cost of Service	**157,676**

Meter Size	Bills/Units	Service Charge	Revenue	
inches		$	$	
	222	37.29	$99,341	
3/4"	383	$15.87	6,070	
1"	241	25.72	6,194	
1 1/2"	0	52.23	0	
2"	198	80.07	15,881	
3"	28	168.02	4,761	
4"	0	287.45	0	
6"	0	627.17	0	
8"	0	839.52	0	
Total	**850**		**132,246**	132,246
Volume Rate Revenue Required				**25,430**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**6,179**	$7.57	**46,775**	**46,775**
Total Revenue				**179,021**
Revenue Surplus (Deficiency)				21,345

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_CTY_SEN**

Inside City - Low Income Senior				**$**
Total Class Cost of Service				**29,850**
	Units	Monthly Service Charge $	Revenue $	
	100	$18.65	22,374	
Total	**100**		**22,374**	22,374
Revenue Surplus (Deficiency)				(7,476)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_SII_RES**

Steamboat II - Residential				**$**
Total Class Cost of Service				**192,898**
	Units	Monthly Service Charge $	Revenue $	
	416	$38.70	193,190	
Total	**416**		**193,190**	193,190
Revenue Surplus (Deficiency)				292

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE:	**Stmboat_WW**
SCHEDULE:	**RATE - ALT 2**
DATE:	**08/12/16**
RANGE:	**ALT2_SII_COM**

Steamboat II - Commercial				**$**
Total Class Cost of Service				**1,203**
	Units	Monthly Service Charge $	Revenue $	
	1	$0.00	0	
Total	**1**		**0**	0
Volume Rate Revenue Required				**1,203**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**173**	$6.93	**1,199**	1,199
Total Revenue				**1,199**
Revenue Surplus (Deficiency)				(4)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_WW
SCHEDULE: RATE - ALT 2
DATE: 08/15/16
RANGE: ALT2_MTW_RES

Mt. Werner - Residential				**$**
Total Class Cost of Service				**1,072,445**
	Units	Monthly Service Charge $	Revenue $	
	6,276	$14.25	1,073,196	
Total	**6,276**		**1,073,196**	1,073,196
Volume Rate Revenue Required				**(751)**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**224,781**	$0.00	**0**	0
Total Revenue				**1,073,196**
Revenue Surplus (Deficiency)				751

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_WW
SCHEDULE: RATE - ALT 2
DATE: 08/12/16
RANGE: ALT2_MTW_COM

Mt. Werner - Commercial				**$**
Total Class Cost of Service				**462,749**
	Units	Monthly Service Charge $	Revenue $	
	126	$0.00	0	
Total	**126**		**0**	0
Volume Rate Revenue Required				**462,749**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**65,660**	$6.98	**458,307**	**458,307**
Total Revenue				**458,307**
Revenue Surplus (Deficiency)				(4,442)

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_WW
SCHEDULE: RATE - ALT 2
DATE: 08/12/16
RANGE: ALT2_MTW_COB

Mt. Werner - Combined				**$**
Total Class Cost of Service				**301,242**
	Units	Monthly Service Charge $	Revenue $	
	417	$14.25	596	
Total	**417**		**596**	596
Volume Rate Revenue Required				**300,646**

Calculated Volume Rate ($ per CF)

	Volume	Volume Rate	Rate Revenue	
Total	**43,779**	$6.98	**305,577**	**305,577**
Total Outside District Revenue				**306,173**
Revenue Surplus (Deficiency)				4,931

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
PROPOSED TEST YEAR 2019
CHARGES BY CLASS

FILE: Stmboat_WW
SCHEDULE: RATES_ALT1
DATE: 08/12/16
RANGE: ALT2_SUM

Line No.	Customer Class	(1) Cost of Service	(2) Service Charge	(3) Volume Charge	(4) Total	(5) Difference $	(6) Difference %
	City						
1	Residential	$1,482,761	$1,482,949	$0	$1,482,949	$188	0%
2	Commercial	715,383	147,536	547,122	694,658	(20,725)	-3%
3	Combined	157,676	132,246	46,775	179,021	21,345	14%
4	**Total City**	**2,355,820**	**1,762,731**	**593,897**	**2,356,628**	**808**	**0%**
	Wholesale						
5	Steamboat II - Residential	192,898	193,190		193,190	292	0%
6	Steamboat II - Commercial	1,203	0	1,199	1,199	(4)	0%
7	Steamboat II - Combined	0			0	0	#DIV/0!
8	Mt. Werner - Residential	1,072,445	1,073,196	0	1,073,196	751	0%
9	Mt. Werner - Commercial	462,749	0	458,307	458,307	(4,442)	-1%
10	Mt. Werner - Combined	301,242	596	305,577	306,173	4,931	2%
11	Tree Haus - Residential	30,394	30,402	0	30,402	8	0%
12	**Total**	**2,060,931**	**1,297,384**	**765,083**	**2,062,467**	**1,536**	**0%**
13	**Total System**	**4,416,751**	**3,060,115**	**1,358,980**	**4,419,095**	**2,344**	**0%**

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
RETAIL 2017, 2018 & 2019 WASTEWATER RATES
ALTERNATIVE 1 - EXISTING STRUCTURE

FILE: Stmboat_WW
SCHEDULE: MULTI_YR
DATE: 08/15/16
RANGE: ALT1_PHASED1

	Existing	Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential	$33.10	$34.40	$35.79	$37.29
Commercial	26.35	28.07	29.92	31.92
Combined	26.35	28.07	29.92	31.92
Low Income Senior	16.55	17.20	17.90	18.65
Volume Rate per 1,000 gallons				
Residential	0.00	0.00	0.00	0.00
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57
Low Income Senior	0.00	0.00	0.00	0.00
Septage Haulers Rate per gallon	0.04	0.04	0.04	0.04

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER BILL IMPACT
ALTERNATIVE 1 - EXISTING STRUCTURE

FILE: Stmboat_WW
SCHEDULE: BILLIMP2
DATE: 08/15/16
RANGE: BILLIMP_PHASED1

Customer Classification	Monthly Use	Current	Alt 1 - 2017			Alt 1 - 2018			Alt 1 - 2019		
	kgal	$	$	Diff - $	Diff - %	$	Diff - $	Diff - %	$	Diff - $	Diff - %
Inside City - Residential		$33.10	$34.40	$1.30	3.9%	$35.79	$1.39	4.0%	$37.29	$1.50	4.2%
Inside City - Commercial 3/4"	9	71.35	80.27	8.92	12.5%	89.77	9.50	11.8%	100.05	10.28	11.5%
	18	116.35	132.47	16.12	13.9%	149.62	17.15	12.9%	168.18	18.56	12.4%
	27	161.35	184.67	23.32	14.5%	209.47	24.80	13.4%	236.31	26.84	12.8%
Inside City - Commercial 2"	27	161.35	184.67	23.32	14.5%	209.47	24.80	13.4%	236.31	26.84	12.8%
	36	206.35	236.87	30.52	14.8%	269.32	32.45	13.7%	304.44	35.12	13.0%
Wholesale Customers											
Steamboat II - Residential		31.10	33.45	2.35	7.6%	35.97	2.52	7.5%	38.70	2.73	7.6%
Steamboat II - Commercial	20	92.00	106.40	14.40	15.7%	122.00	15.60	14.7%	138.60	16.60	13.6%
Mt. Werner - Residential		11.25	12.18	0.93	8.3%	13.18	1.00	8.2%	14.25	1.07	8.1%
Mt. Werner - Commercial	52	249.08	284.44	35.36	14.2%	322.40	37.96	13.3%	362.96	40.56	12.6%
Tree Haus - Residential		24.45	23.83	(0.62)	-2.5%	23.15	(0.68)	-2.9%	22.42	(0.73)	-3.2%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
RETAIL 2017, 2018 & 2019 WASTEWATER RATES
ALTERNATIVE 2 - NON-RESIDENTIAL MSC BY METER SIZE

FILE: Stmboat_WW
SCHEDULE: MULTI_YR
DATE: 08/15/16
RANGE: ALT2_PHASED2

	Existing	Retail Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - City				
Residential	$33.10	$34.40	$35.79	$37.29
Commercial/Combined				
3/4"	26.35	13.76	14.69	15.87
1"	26.35	22.30	23.81	25.72
1 1/2"	26.35	45.29	48.35	52.23
2"	26.35	69.42	74.12	80.07
3"	26.35	145.68	155.53	168.02
4"	26.35	249.23	266.08	287.45
6"	26.35	543.78	580.54	627.17
8"	26.35	727.90	777.10	839.52
Low Income Senior	16.55	16.17	17.26	18.65
Volume Rate per 1,000 gallons				
Residential	0.00	0.00	0.00	0.00
Commercial	5.00	5.80	6.65	7.57
Combined	5.00	5.80	6.65	7.57
Low Income Senior	0.00	0.00	0.00	0.00
Septage Haulers Rate per gallon	0.04	0.04	0.04	0.04

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
CUSTOMER BILL IMPACT
ALTERNATIVE 2 - NON-RES MSC BY METER SIZE

FILE: Stmboat_WW
SCHEDULE: BILLIMP2
DATE: 08/15/16
RANGE: BILLIMP_PHASED2

Customer Classification	Monthly Use	Current	Alt 2 - 2017			Alt 2 - 2018			Alt 2 - 2019		
	kgal	$	$	Diff - $	Diff - %	$	Diff - $	Diff - %	$	Diff - $	Diff - %
Inside City - Residential		$33.10	$34.40	$1.30	3.9%	$35.79	$1.39	4.0%	$37.29	$1.50	4.2%
Inside City - Commercial 3/4"	9	71.35	65.96	(5.39)	-7.6%	74.54	8.58	13.0%	84.00	9.46	12.7%
	18	116.35	118.16	1.81	1.6%	134.39	16.23	13.7%	152.13	17.74	13.2%
	27	161.35	170.36	9.01	5.6%	194.24	23.88	14.0%	220.26	26.02	13.4%
Inside City - Commercial 2"	27	161.35	226.02	64.67	40.1%	253.67	27.65	12.2%	284.46	30.79	12.1%
	36	206.35	278.22	71.87	34.8%	313.52	35.30	12.7%	352.59	39.07	12.5%
Wholesale Customers											
Steamboat II - Residential		31.10	33.45	2.35	7.6%	35.97	2.52	7.5%	38.70	2.73	7.6%
Steamboat II - Commercial	20	92.00	106.40	14.40	15.7%	122.00	15.60	14.7%	138.60	16.60	13.6%
Mt. Werner - Residential		11.25	12.17	0.92	8.2%	13.17	1.00	8.2%	14.25	1.08	8.2%
Mt. Werner - Commercial	52	249.08	284.96	35.88	14.4%	322.92	37.96	13.3%	362.96	40.04	12.4%
Tree Haus - Residential		24.45	23.83	(0.62)	-2.5%	23.15	(0.68)	-2.9%	22.42	(0.73)	-3.2%

STEAMBOAT SPRINGS, COLORADO
2016 RATE & FEE STUDY
WHOLESALE 2011, 2012 & 2013 WASTEWATER RATES

FILE: Stmboat_WW
SCHEDULE: MULTI_YR
DATE: 08/15/16
RANGE: Proposed

	Existing	Wholesale Customer Rates		
	2016	2017	2018	2019
Monthly Service Charge - Steamboat II				
Residential	$31.10	$33.45	$35.97	$38.70
Commercial	0.00	0.00	0.00	0.00
Volume Rate per 1,000 gallons - Steamboat II				
Residential	0.00	0.00	0.00	0.00
Commercial	4.60	5.32	6.10	6.93
Combined	4.60	5.32	6.10	6.93
Monthly Service Charge - Mt. Werner				
Residential	11.25	12.17	13.17	14.25
Commercial	0.00	0.00	0.00	0.00
Combined	11.25	12.17	13.17	14.25
Volume Rate per 1,000 gallons - Mt. Werner				
Residential	0.00	0.00	0.00	0.00
Commercial	4.79	5.48	6.21	6.98
Combined	4.79	5.48	6.21	6.98
Monthly Service Charge - Tree Haus				
Residential	24.45	23.83	23.15	22.42

APPENDIX H:

Wastewater Tap Fees

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
SEWER TAP FEE CALCULATION

FILE:	PIF.xls
SCHEDULE:	TF Calc
DATE:	08/18/16
RANGE:	S_PIF5

HYBRID APPROACH - WWTP AND INTERCEPTOR

Treatment, Interceptor System replacement cost			49,876,595
Less: Developer contributed collection system			0
Future Expansion Cost			3,445,500
Plus: NPV of borrowing cost - Existing Debt (1)			518,152
Plus: NPV of borrowing cost - Future Debt			1,234,078
Less: current outstanding debt principal			0
Total cost for PIF calculation			$55,074,325
Total WWTP capacity (MGD) (2)	7.50		
Estimated EQR flow (gpd) (3)	693		
System EQR capacity	10,823		10,823
Value per EQR			$5,089
Tap Fee		Per Fixture Unit (3)	Per EQR
Treatment PIF per EQR based on no. of fixture units (4):	130	$39.14	$5,089
Current PIF		36.65	4,765
Difference - $		$2.49	$323.64
- %		7%	7%

(1) 79% or $518,152 of the NPV of the borrowing cost of existing debt is allocated to the WWTP and interceptor while the remaining 21% or $137.736.69 is allocated to the collection system.
(2) Permitted capacity during March through June of 7.50 MGD per Page III-5 of Draft 12/8/09 Master Plan.
(3) Per 12/8/09 Master Plan, Pages II-9 through II-10, 280 gallons per EQR per day adjusted for reported maximum daily flow during wet months of 5.91 MGD and 2.388 MGD during dry months in 2014.
(4) Assumes an EQR value based on 130 fixture units as recommended in the April 12, 2000 Wright Water Engineers, Inc., memorandum to Jim Weber, PW Director, City of Steamboat Springs.

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
SEWER TAP FEE CALCULATION

FILE:	PIF.xls
SCHEDULE:	TF Calc
DATE:	08/18/16
RANGE:	S_PIF6

HYBRID APPROACH – COLLECTION SYSTEM

Collection System replacement cost			$12,596,764
Less: Developer contributed collection system			(2,699,688)
Future Expansion Cost			0
Plus: NPV of borrowing cost (1)			137,737
Plus: NPV of borrowing cost - Future Debt			0
Less: current outstanding debt principal			0
Total cost for PIF calculation			$10,034,813
Total WWTP capacity (MGD) (2)	7.50		
Estimated EQR flow (gpd) (3)	693		
System EQR capacity	10,823		10,823
Value per EQR			$927
Tap Fee		Per Fixture Unit (3)	Per EQR
Collection PIF per EQR based on no. of fixture units (4):	130	$7.13	$927
Current PIF		5.00	650
Difference - $		$2.13	$277
- %		43%	43%

(1) 79% or $518,152 of the NPV of the borrowing cost of existing debt is allocated to the WWTP and interceptor while the remaining 21% or $137.736.69 is allocated to the collection system.
(2) Permitted capacity during March through June of 7.50 MGD per Page III-5 of Draft 12/8/09 Master Plan.
(3) Per 12/8/09 Master Plan, Pages II-9 through II-10, 280 gallons per EQR per day adjusted for reported maximum daily flow during wet months of 6.07 MGD and 2.93 MGD during dry months.
(4) Assumes an EQR value based on 130 fixture units as recommended in the April 12, 2000 Wright Water Engineers, Inc., memorandum to Jim Weber, PW Director, City of Steamboat Springs.

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - SEWER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Sewer
DATE: 08/15/16
RANGE: SEWER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST	FUNCTION
1115-74011	INSITUFORM (SEWER PIPE REHAB)	2008	34,652	5865	41,804	3
1115-75024	SEWER INTERCEPTOR IMPROVEMENTS	2008	464,333	5865	560,165	2
DC	EMERALD VILLAGE SEWER LINE	2008	140,000	5865	168,894	3
DC	BETTERVIEW BUSINES PARK SEWER LINE	2008	152,950	5865	184,517	3
1115-74011	SODA RIDGE WAY & DEERFOOT AVE SEWER MAIN	2009	161,615	5929	192,862	3
DC	ANGLERS RETREAT SUBDIVISION SEWER LINE	2009	105,907	5929	126,383	3
DC	COPPER RIDGE BUSINESS PARK SEWER LINE	2009	147,216	5929	175,679	3
DC	HAMPTON INN SEWER LINE	2009	36,700	5929	43,796	3
DC	WEST END TOWNHOMES SEWER LINE	2009	34,164	5929	40,770	3
1043	Riverwalk Sewer Main	2010	271,807	6401	300,405	3
1064	2011 Oak/Lincl Alley Swr Line	2011	1,349,262	6759	1,412,231	3
DC	Captain Jack Subdivision Sewer	2011	35,793	6759	37,463	3
DC	Boulder Ridge Sewer Main	2011	202,786	6759	212,250	3
DC	Worldwest Subdiv Sewer Main	2011	14,750	6759	15,438	3
DC	Rocky Peak Village Sewer Main	2011	104,500	6759	109,377	3
DC	Entress Subdivion Sewer Main	2011	162,000	6759	169,560	3
DC	Eco Corral Townhomes Subdivision	2012	84,375	6982	85,502	3
DC	Riverwalk	2012	1,312,524	6982	1,330,059	3
	Dream Island Interceptor Replacement	2012	1,375,282	6982	1,393,655	2
	TOTAL TRANSMISSION LINES		$13,842,405		$22,604,886	
11-14025	**LAND APPLICATION IMPROVEMENTS**					
	1996 LAND APPLICATION IMP (from 96 CIP)	1997	$74,539	4329	$121,812	2
	1996 VALLEY SITE LAND APPL IMPROV (from 96 CIP)	1997	17,109	4329	27,960	2
1101-74008	1997 VALLEY SITE LAND APPL IMPROVEMENTS	1997	3,642	4329	5,952	2
1105-74008	1998 WWTP- DRAIN LINE EXTENSION	1998	43,938	4470	69,536	2
1041	Polishing Pond Liner	2010	486,363	6401	537,536	1
	TOTAL LAND APPLICATION IMPROVEMENTS		$625,591		$762,796	
	FURNITURE AND EQUIPMENT					
1104-00072	LAB AND OFFICE FURNITURE	1981	$32,043	3201	$70,831	5
1104-00984	AIR BLOWER	1993	17,828	4012	31,438	5
1104-02926	CATEPILLAR IT24F	1999	42,214	4498	66,391	5
1104-03221	2002 POLARIS WIDE TRACK SNOWMOBILE	2001	6,322	4663	9,592	5
1104-03309	2003 KAWASAKI MULE 310 4X4 ATV	2002	7,500	4744	11,184	5
1104-03444	SULLAIR COMPRESSOR 185 DPQ	2004	3,565	5450	4,628	5
1104-03944	FOLDER/INSERTER MACHINE SPLIT W/ WATER	2008	2,648	5865	3,195	5
1104-03985	HAND HELD METER READER SPLIT W/ WATER	2009	3,619	5929	4,319	5
1104-03847	SCADA SYSTEM	2007	219,342	5748	269,993	5

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - SEWER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Sewer
DATE: 08/15/16
RANGE: SEWER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST	FUNCTION
11-14020	**LAND & IMPROVEMENTS**					
10-00-0001	OLD PLANT SITE	1967	$6,500	991	$6,500	1
10-00-0002	NEW PLANT SITE	1978	254,904	2565	254,904	1
10-00-0003	TREATMENT PLANT SITE	1981	241,904	3201	241,904	1
10-00-0004	TREATMENT PLANT EASEMENTS	1981	36,140	3201	36,140	1
1107	Sewer Lagoon Reclam/Skate Park	2012	114,573	6982	114,573	1
	TOTAL LAND & IMPROVEMENTS		$654,021		$654,021	
11-14030	**BUILDINGS**					
30-00-0001	PHASE I PLANT	1974	$249,551	1670	$1,057,138	1
30-00-0002	PHASE II PLANT	1974	73,244	1670	310,273	1
30-00-0003	TREATMENT PLANT	1981	5,725,997	3201	12,657,309	1
30-00-0004	TREATMENT PLANT	1982	68,322	3446	140,282	1
XXXXXXX	85 SYSTEM WORK	1985	82,996	3316	177,064	1
XXXXXXX	86 SYSTEM WORK	1986	249,505	3503	503,861	1
XXXXXXX	87 SYSTEM WORK	1987	76,841	3507	155,018	1
XXXXXXX	88 SYSTEM WORK I & I PROGRAM	1988	103,045	3538	206,041	3
XXXXXXX	89 SYSTEM WORK DESIGN ENGINEERING	1989	1,401	3642	2,722	1
XXXXXXX	89 SYSTEM WORK SLUDGE HANDLING	1989	9,438	3642	18,335	1
XXXXXXX	89 SYSTEM WORK I & I PROGRAM	1989	144,954	3642	281,602	3
XXXXXXX	89 BUILDINGS-A/P	1989	20,853	3642	40,511	1
XXXXXXX	90 DESIGN ENG.-TREATMENT	1990	4,106	3668	7,920	1
XXXXXXX	90 SYSTEM WORK I & I PROJECT	1990	70,709	3668	136,376	3
XXXXXXX	91 SYSTEM WORK I & I PROJECT	1991	32,021	3715	60,975	3
XXXXXXX	95 BIOSOLIDS IMPROVEMENT PROJECT	1995	941,336	4088	1,629,185	1
XXXXXXX	BIOSOLIDS MGR STUDY(1992 FROM CIP)	1995	8,384	4088	14,510	1
XXXXXXX	BIOSOLIDS MGR STUDY(1993 FROM CIP)	1995	23,466	4088	40,613	1
XXXXXXX	CONSTRUCTION (1992 FROM CIP)	1995	32,117	4088	55,585	1
XXXXXXX	PRELIM. ENG.-DIGESTER (1994 FROM CIP)	1995	35,513	4088	61,463	1
XXXXXXX	FISH CREEK DISSOLUTION (JE 13167)	1995	1,032,760	4088	1,787,414	1
1101-74010	BIOSOLIDS IMPROVE. (FROM 96 CIP)	1997	269,326	4329	440,133	1
1101-74010	BIOSOLIDS IMPROVEMENTS	1997	86,179	4329	140,833	1
XXXXXXX	TREATMENT PLANT EXPANSION	2003	10,268,627	5015	14,485,109	1
XXXXXXX	TREATMENT PLANT EXPANSION	2004	58,572	5450	76,030	1
1115-75028	CENTRIFUGE	2008	538,000	5865	649,036	1
1042	Street Shop Expansion	2010	690,591	6401	763,251	5
1220	AERATION UPGRADES-BASINS 1&2 HVAC	2014	453,027	7015	456,879	1
	TOTAL BUILDINGS		$21,350,880		$36,355,468	

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - SEWER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Sewer
DATE: 08/15/16
RANGE: SEWER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST	FUNCTION
11-14031	**TRANSMISSION LINES**					
50-00-0001		1968	$251,003	1057	$1,679,490	3
50-00-0002		1970	13,103	1199	77,324	3
50-00-0003		1972	2,926	1475	14,033	3
50-00-0004		1974	115,032	1670	487,292	3
50-00-0005		1975	41,581	1886	155,964	3
50-00-0006		1977	22,477	2353	67,581	3
50-00-0007		1978	63,323	2565	174,674	3
50-00-0008	INFILTRATION/INFLOW (Treatment Plant per Don T.)	1979	919,344	2739	2,374,550	2
50-00-0009	INFILTRATION/INFLOW	1980	28,811	2947	69,163	3
50-00-0010	DREAM ISLAND INTERCEPTOR	1980	418,400	2947	1,004,405	2
50-00-0011	REGIONAL INTERCEPTOR	1981	955,418	3201	2,111,950	2
50-00-0012	NOB STREET SEWER LINE	1981	71,086	3201	157,136	3
50-00-0013	NOB STREET SEWER LINE	1982	3,771	3446	7,742	3
50-00-0014	REGIONAL INTERCEPTOR	1982	6,964	3446	14,299	2
50-00-0015	MAPLE STREET SEWER LINE	1983	5,488	3690	10,522	3
XXXXXXX	84 SEWER LINE IMPROVEMENTS	1984	115,885	3106	263,924	3
XXXXXXX	85 SEWER LINE IMPROVEMENTS	1985	84,845	3316	181,008	3
XXXXXXX	86 SEWER LINE IMPROVEMENTS	1986	158,138	3503	319,350	3
XXXXXXX	87 SEWER LINE IMPROVEMENTS	1987	171,573	3507	346,127	3
XXXXXXX	88 SEWER LINE IMPROVEMENTS	1988	172,012	3538	343,943	3
XXXXXXX	89 SEWER LINE IMPROVEMENTS	1989	150,979	3642	293,305	3
XXXXXXX	91 SEWER LINE IMPROVEMENTS	1991	206,616	3715	393,444	3
XXXXXXX	92 SEWER LINE IMPROVEMENTS	1992	245,254	3834	452,607	3
XXXXXXX	I & I SEALED MANHOLES	1993	23,925	4012	42,190	3
XXXXXXX	93 SEWER LINE IMPROVEMENTS	1993	152,593	4012	269,084	3
XXXXXXX	METER PROGRAM (FRM CIP)	1989	96,195	3642	186,876	3
XXXXXXX	METER PROGRAM (FRM CIP)	1990	106,496	3668	205,399	3
XXXXXXX	METER PROGRAM (FRM CIP)	1991	110	3715	209	3
	96 SEWER MAIN IMPROVEMENTS	1996	13,500	4334	22,037	3
1102-74011	EAST MAPLE SEWER	1997	25,649	4329	41,916	3
1102-74011	INTERCEPTOR SEWER IMPROVEMENTS	1997	74,213	4329	121,279	2
FROM CIP 199	US40 CROSSING-W. STMBT(NEAR SLEEPY BEAR)	1996	23,975	4334	39,136	3
1105-74011	1999 SEWER MAIN IMPROVEMENTS	1999	93,228	4498	146,623	3
1105-74011	2002 SEWER REHABILITATION PROJECT	2000	139,625	4767	207,232	3
1105-74011	2002 SEWER MAIN IMPROVEMENTS	2002	100,076	4744	149,236	3
From CIP	SEWER INTERCEPTOR IMPROVEMENTS	2003	2,200,525	5015	3,104,100	2
	SEWER INTERCEPTOR IMPROVEMENTS	2004	6,712	5450	8,713	2
1115-74011	SEWER PIPELINE REHABILITATION	2005	60,180	5480	77,689	3
1115-75029	SEWER UPGRADE FOR WEST STMBT (CAMPGROUND)	2007	310,762	5748	382,524	3

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
FIXED ASSETS - SEWER FUND
AS OF DECEMBER 31, 2015

FILE: PIF.xls
SCHEDULE: Sewer
DATE: 08/15/16
RANGE: SEWER

ASSET NUMBER	ASSET DESCRIPTION	YEAR PLACED IN SERVICE	ORIGINAL COST	ENR-CCI INDEX DENVER	REPLACEMENT COST	FUNCTION
1104-03950	MONITORING MANHOLES	2008	104,757	5865	126,377	5
1063	2011 Sewer Bar Screen Replace	2011	504,697	6759	528,250	1
1097	Tree Haus WW Metering Station	2012	17,025	6982	17,252	5
1145	Meter Conversion	2012	$534,887	6982	$542,033	5
	TOTAL FURNITURE AND EQUIPMENT		$1,496,446		$1,685,483	
11-14010	**CONSTRUCTION IN PROGRESS**					
	Fish Creek Mobile Park Interceptor	2015	407,243	7015	$410,705	2
	TOTAL CONSTRUCTION WORK IN PROGRESS		$407,243		$2,638,221	
	TOTAL		$38,376,585		$64,700,875	
	WWTP AND DISPOSAL		$21,954,640		$36,627,030	1
	INTERCEPTOR		6,967,662		11,329,081	2
	DEVELOPER CONTRIBUTIONS - COLLERTOR / INTERCEPTOR		0		0	dc
	MISC. / ADMIN		1,682,340		1,920,484	5
	DEVELOPER CONTRIBUTIONS - LOCAL COLLECTION LINES		2,533,665		2,699,688	dc
	LOCAL COLLECTION LINES		7,771,943		12,596,764	3
	TOTAL		$40,910,250		$65,173,047	

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
SEWER CIP - 2016 THROUGH 2025 - 2016 $'s

FILE: PIF.xls
SCHEDULE: TF Calc
DATE: 08/12/16
RANGE: S_CIP

Line No.	DESCRIPTION	FUNCTION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Growth Percent Allocation	2016 -2025	2016 -2025 Total	2016 -2025 Total	2016 -2025 Growth Total
			Projected														
	Total CIP																
1	Sewer Main Replacement Program	3	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	0%	$10,000,000		$10,000,000	$0
2	Inflow & Infiltration Reduction Program	3	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	0%	600,000		600,000	0
3	Mt. Werner Interceptor Replacement	2	50,000	1,800,000	1,800,000	0	0	0	0	0	0	0	30%	3,650,000		3,650,000	1,095,000
4	Aeration Basin Blowers	1	0	0	0	0	440,000	0	0	0	0	0	20%	440,000		440,000	88,000
5	Digester #4	1	50,000	2,000,000	0	0	0	0	0	0	0	0	100%	2,050,000		2,050,000	2,050,000
6	Major Treatment Plant Upgrades	1	221,576	225,878	232,655	239,635	246,824	254,228	0	275,000	275,000	275,000	0%	2,245,796		2,245,796	0
7	Steamboat II Lift Station	4	250,000	0	0	0	0	0	0	0	0	0	70%	250,000		250,000	175,000
8	Upgrades for Nutrient Regulations	1	0	0	0	0	0	0	15,000,000	0	0	0	0%	15,000,000		15,000,000	0
9	Upgrades for Temperature Regulations	1	0	0	0	0	0	0	5,000,000	0	0	0	0%	5,000,000		5,000,000	0
10	Rate Study Update	5	0	0	0	50,000	0	0	50,000	0	0	50,000	25%	150,000		150,000	37,500
11	**Total CIP**		**$1,631,576**	**$5,085,878**	**$3,092,655**	**$1,349,635**	**$1,746,824**	**$1,314,228**	**$21,110,000**	**$1,335,000**	**$1,335,000**	**$1,385,000**		**$39,385,796**	**$0**	**$39,385,796**	**$3,445,500**

0

Bond Amortization Schedule
CWRPDA 1999 WWTP Expansion

Borrowing Rate	5.00%		Discount Rate
Years	20		5.00%
Avg. Annual Payment	$213,022		
Principal Amount	$2,935,636		NPV of
Year of Issue	1999		Interest Payments
			$97,754

Fiscal Year	Principal	Interest/Other	Total
2016	$171,424	$41,854	$213,278
2017	176,781	36,567	213,348
2018	192,852	20,235	213,087
2019	203,566	8,807	212,373
Total	**$744,623**	**$107,463**	**$852,086**

Bond Amortization Schedule
2001 CWRPDA LOAN

Borrowing Rate	4.05%	Discount Rate	
Years	20	4.05%	
Avg. Annual Payment	$428,613		
Principal Amount	$6,000,000	NPV of	
Year of Issue	2001	Interest Payments	
		$352,619	

Fiscal Year	Principal	Interest	Total
2016	$325,128	$100,957	$426,085
2017	341,384	86,669	428,053
2018	352,222	77,178	429,400
2019	363,060	66,671	429,731
2020	384,735	44,156	428,891
2021	411,829	17,687	429,516
Total	**$2,178,358**	**$393,319**	**$2,571,676**

Bond Amortization Schedule
2011 CWRPDA Series B LOAN

Borrowing Rate	4.71%		Discount Rate
Years	20		4.71%
Avg. Annual Payment	$325,876		
Principal Amount	4,199,000		NPV of
Year of Issue	2011		Interest Payments
			$1,208,919

Fiscal Year	Principal	Interest	Total
2016	$161,500	$163,725	$325,225
2017	166,600	158,880	325,480
2018	173,400	152,216	325,616
2019	180,200	145,280	325,480
2020	190,400	136,270	326,670
2021	198,900	126,750	325,650
2022	209,100	116,805	325,905
2023	217,600	108,441	326,041
2024	226,100	99,737	325,837
2025	234,600	90,410	325,010
2026	244,800	80,733	325,533
2027	255,000	70,635	325,635
2028	268,600	57,885	326,485
2029	282,200	44,455	326,655
2030	295,800	30,345	326,145
2031	311,100	15,555	326,655
		-	
Total	**$3,615,900**	**$1,598,122**	**$5,214,022**

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
Sewer System – NPV of Borrowing Cost

FILE: PIF.xls
SCHEDULE: SEWER NPV
DATE: 8/17/2016
RANGE: S_NPV

Wastewater Bond Issues

	Principal	% Growth	NPV of Interest	Interest
CWRPDA 1999 WWTP Expansion	$2,935,636	100%	$97,754	$107,463
2001 CWRPDA LOAN	6,000,000	100%	352,619	393,319
2011 CWRPDA Series B LOAN	4,199,000	17%	205,516	271,681
Total	13,134,636		655,889	772,463

Bond Amortization Schedule
2017

Borrowing Rate	5.00%		Discount Rate
Years	20		5.00%
Annual Payment	$251,240		
Principal Amount	$3,131,000		NPV of
Year of Issue	2017		Interest Payments
			$1,234,078

Fiscal Year	EOY Principal Balance	Principal	Interest	Total
2016	$0	$0	$0	$0
2017	3,083,655	47,345	$78,275	125,620
2018	2,986,598	97,057	154,183	251,240
2019	2,884,688	101,910	149,330	251,240
2020	2,777,682	107,006	144,234	251,240
2021	2,665,326	112,356	138,884	251,240
2022	2,547,352	117,974	133,266	251,240
2023	2,423,480	123,872	127,368	251,240
2024	2,293,414	130,066	121,174	251,240
2025	2,156,845	136,569	114,671	251,240
2026	2,013,447	143,398	107,842	251,240
2027	1,862,879	150,568	100,672	251,240
2028	1,704,783	158,096	93,144	251,240
2029	1,538,782	166,001	85,239	251,240
2030	1,364,482	174,301	76,939	251,240
2031	1,181,466	183,016	68,224	251,240
2032	989,299	192,167	59,073	251,240
2033	787,524	201,775	49,465	251,240
2034	575,660	211,864	39,376	251,240
2035	353,203	222,457	28,783	251,240
2036	119,623	233,580	17,660	251,240
2037	0	119,639	5,981	125,620
Total		**$3,131,016**	**$1,893,784**	**$5,024,800**

STEAMBOAT SPRINGS, COLORADO
2016 Rate & Fee Study
Sewer System – NPV of Borrowing Cost

FILE: PIF.xls
SCHEDULE: Sewer NPV
DATE: 8/12/2016
RANGE: S_NPV1

Sewer Bond Issues

	Principal	NPV of Interest
2017	$3,131,000	$1,234,078
2018	0	0
2019	0	0
2021	0	0
2023	0	0
Total	$3,131,000	$1,234,078

ENR Values

Year	Denver ENR-CCI
1960	756
1961	777
1962	800
1963	828
1964	859
1965	880
1966	923
1967	991
1968	1,057
1969	1,127
1970	1,199
1971	1,352
1972	1,475
1973	1,556
1974	1,670
1975	1,886
1976	2,124
1977	2,353
1978	2,565
1979	2,739
1980	2,947
1981	3,201
1982	3,446
1983	3,690
1984	3,106
1985	3,316
1986	3,503
1987	3,507
1988	3,538
1989	3,642
1990	3,668
1991	3,715
1992	3,834
1993	4,012
1994	4,009
1995	4,088
1996	4,334
1997	4,329
1998	4,470
1999	4,498
2000	4,767
2001	4,663
2002	4,744
2003	5,015
2004	5,450
2005	5,480
2006	5,612
2007	5,748
2008	5,865
2009	5,929
2010	6,401
2011	6,759
2012	6,982
2013	7,015