

Justin S. Greene
Commissioner, District 1

Lisa Cacari Stone
Commissioner, District 2

Camilla Bustamante
Commissioner, District 3



Adam Fulton Johnson
Commissioner, District 4

Hank Hughes
Commissioner, District 5

Gregory S. Shaffer
County Manager

May 1, 2026

SANTA FE COUNTY
Public Works Department
Comprehensive Water and Wastewater Rate Study
RFP No 2026-0262-PW
ADDENDUM NO. 2

Dear Proponents,

This addendum is issued to reflect the following immediately. It shall be the responsibility of interested Offerors to adhere to any changes or revisions to the RFP as identified in this Addendum No. 2. This documentation shall become permanent and made part of the departmental files.

***Reminder: The Proposal Submittal Deadline has been extended to:
2:00 pm (MST), Tuesday, May 12, 2026***

Attachment A: 2018 Comprehensive Water and Sewer Rate Study

1. **Can you confirm the County is not requesting a cost proposal for the project but instead is requesting a rate schedule listing fully-loaded hourly rates for staff that are anticipated to work on the project?**

Answer: Correct, only a fully loaded hourly rate is requested.

2. **Does the separate appendix with resumes count toward the 25 page limit?**

Answer: No, only the response to the categories listed in the scoring Evaluation Criteria Section B will count toward the page limit.

3. When was the last rate study completed, and who performed that study?

Answer: A cost of service study was completed in 2018 by HDR Engineering as part of the County's Utility Master Plan work, which included a water/wastewater cost of service and rate study. It is included here as Attachment A.

Please add Addendum No. 1 to the original proposal documents and refer to proposal documents, hereto as such. This and all subsequent addenda will become part of any resulting contract documents and have effects as if originally issued. All other unaffected sections will have their original interpretation and remain in full force and effect. Responders are reminded that any questions or need for clarification must be addressed to Ben McCormack, Procurement Specialist Senior at dmccormack@santafecountynm.gov.



FINAL REPORT



Santa Fe County
Comprehensive Water and Sewer Rate Study
May 2018





May 8, 2018

Mr. John Dupuis
Santa Fe County Public Works Utility Division
102 Grant Avenue
PO Box 276
Santa Fe, New Mexico 98504-0276

Subject: 2018 Comprehensive Water and Sewer Rate Study Final Report

Dear Mr. Dupuis:

Please find attached the final report on the comprehensive water and sewer rate study prepared by HDR Engineering, Inc. (HDR) for the Santa Fe County (County) water and sewer utilities. This report was prepared through the mutual efforts of HDR and the County. The conclusions and recommendations contained within this report are intended to enable the County's water and sewer utility to be adequately funded and operate on a prudent and financially sound basis.

This study has been developed utilizing generally accepted water and sewer rate-setting principles and methodologies. The objective of this study was to develop and establish rates which are cost-based but also fair and equitable.

The proposed rates contained within this study are based upon estimates and projections of future costs and anticipated customer consumption. Given that, the County should closely monitor their revenues, costs and capital plans against this study to determine in a timely manner any significant variances and then take appropriate management and Board action to reconcile any major differences.

We appreciate your assistance, along with that of the County's management team and staff in the development of this report. We look forward to the opportunity to provide other technical assistance in the future.

Sincerely yours,
HDR Engineering, Inc.

Gabriel Alvarado, PE
Project Manager

Judy Dean
Senior Analyst



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Technical Appendix A – Water Rate Analyses

Technical Appendix B – Sewer Rate Analyses

Introduction

HDR Engineering (HDR) was retained by Santa Fe County (County) to conduct a comprehensive water and sewer rate study. The objective of this study was to develop financial plans and cost-based rates necessary to meet the County’s operation and maintenance (O&M) needs and the capital improvement program for each utility.

The County is currently in a period of transition as it relates to the utilities and the user rates associated with them. Historically, the County has treated the water and wastewater utility as a single or combined fund. In addition, the user rates have been set to recover the operation and maintenance (O&M) costs associated with each utility. The County’s general fund and the issuance

The objective of this study was to develop financial plans and cost-based rates necessary to meet the County’s operation and maintenance (O&M) needs and the capital improvement program for each utility.

of General Obligation (G.O.) bonds have been used to fund the capital infrastructure costs of each utility. The County is interested in moving towards an “enterprise” approach for the utilities in which the user rates are set at an appropriate level to recover both O&M and capital infrastructure costs. This change is significant and will require a number of years to gradually transition the user rates to a cost-based level. This study represents the first step of that transition and establishes the general framework and rate setting methodology which should be used going forward to evaluate the water and wastewater utility’s financial status and rates.

This study has used generally accepted rate setting methodologies and reflects current water and wastewater industry best practices.

Key Water and Sewer Rate Study Results

Based upon the technical analysis undertaken as a part of this study, the following findings, conclusions and recommendations were noted.

- Revenue requirements were developed for the water and sewer utility for the period of projected years FY 2019 to FY 2023.
- The FY 2018 budget document was used as a baseline for projecting expenses.
- The wholesale water supply expenses were obtained directly from the Buckman Direct Diversion project O&M budget estimates.
- Rate adjustments were proposed over the five-year period of FY 2019 to FY 2023.
- The needed rate adjustments to bring the utilities to full Enterprise funding were significant therefore a rate transition plan was developed.
- Based upon the findings of the water and sewer cost-of-service analyses conducted, it appears that the County’s rates do have some discrepancies. However, given this was the first time for a cost of service analysis, and that the County has specific contract

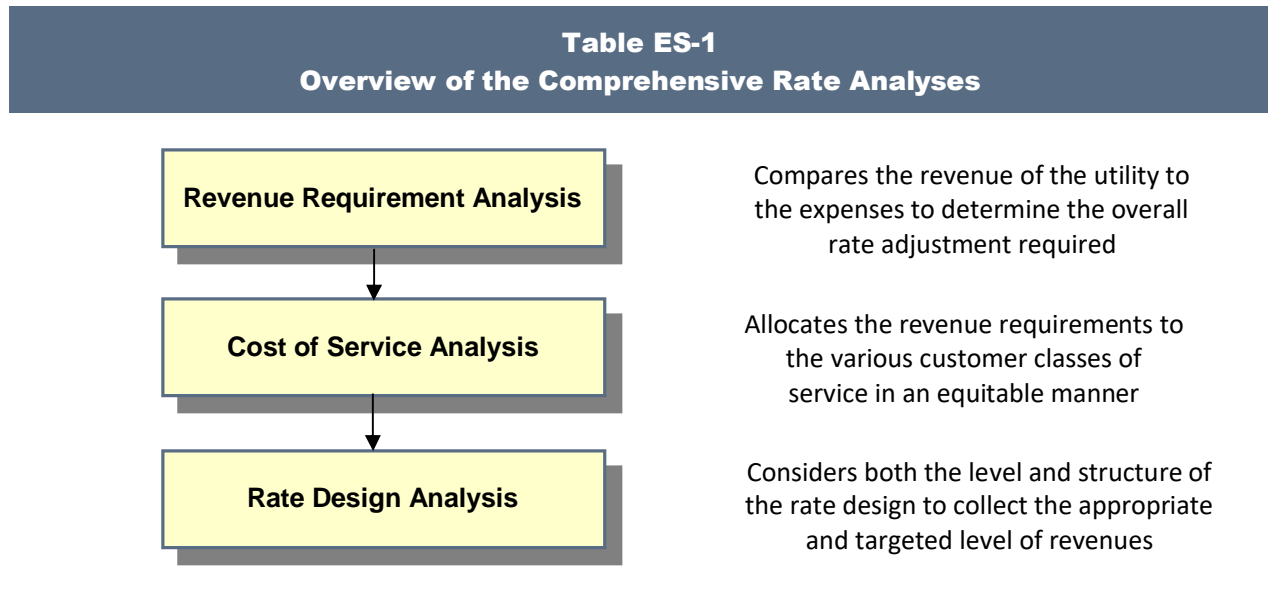
requirements, no retail interclass changes or adjustments are recommended for either water or sewer at this time.

- The wholesale water rates were set to equal the Buckman Direct Diversion (BDD) average operational cost for the County, plus wholesale costs from the City for when the BDD is down and not available to deliver water to the County.
- In reviewing the water rates with County staff, changes were made to the rate structure for the water rates. The water rates were adjusted from a 5,000 gallon (per tier), four tier structure to a 4,000 gallon (per tier), and five tier increment structure. In addition the total rate adjustment for the five year period was applied in year 1 to the meter charge and the annual rate adjustment (e.g. rate transition plan) to the usage charge.
- In reviewing the sewer rates with the County staff, no changes were made to the sewer rate structure. However the County staff, requested billing to be based on all consumption instead of the current average winter bill. These changes were based on County staff input and their need to simplify the billing process and for easier programing and administration of the billing program.

Provided below is the executive summary of the analyses undertaken for the County and the findings, conclusions and recommendations reached as a result of this study.

Overview of the Rate Study Process

The methodology for the comprehensive rate study is based on generally accepted rate setting principles and methodologies as described in the American Water Works Association (AWWA) M1 Manual; *Principles of Water Rates, Fees and Charges* and the Water Environment Federation (WEF) Manual of Practice No. 27, *Financing and Charges for Wastewater Systems*. A comprehensive rate study uses three interrelated analyses to assess the adequacy and equity of a utility’s rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. Table ES-1 provides an overview of these analyses.



HDR conducted a revenue requirement, cost of service study, and rate design analyses. The results from each task of the rate study, for the water, and sewer utilities, were used as the basis for establishing cost-based and equitable rates for the County's customers.

The County currently includes both utilities within one fund Enterprise fund. A comprehensive review of the County's water and sewer rates was undertaken. Each utility was financially evaluated on a "stand-alone" basis. That is, no subsidies between the utilities or other County funds should occur. By viewing each utility on a stand-alone basis, the need to adequately fund both O&M and capital infrastructure must be balanced against the rate impacts to customers.

A key element of any rate study is using the above framework for analyzing a utility's rates, but at the same time, tailoring the methodology to reflect the specific and unique circumstances of the utility being reviewed. In this particular study, the County's water system has two main levels of service; retail and wholesale. The retail customer base consists of residential and non-residential customers. The wholesale customers (i.e., rates) are currently split into three categories of service, Domestic Association which includes the Agua Fria Community and the State Penitentiary, wholesale potable which includes the Santa Fe Community College and Las Campanas Co-Op, and wholesale non-potable or raw which is the Club at Las Campanas. The County's wastewater system is retail and includes residential, non-residential and the State Penitentiary. The County's sewer system has two main levels of service; residential and non-residential. The residential and non-residential are currently at the same rate level. The non-residential includes the Penitentiary which is at a monthly contract rate.

Each of these customer groups have been reviewed and are included in the rate study analysis along with proposed water and wastewater rate adjustments to maintain the levels of service for each of the County's customers.

Prudent Financial Planning

In developing revenue requirements, the County's revenue and expenses for the period of budget fiscal year 2018 were used as the initial starting point. However, within the development of the revenue requirements, the analysis should also consider prudent financial planning criteria. The prudent financial planning criteria considered during the development of this study were as follows:

- **Establishing a Minimum Funding Level for Capital Projects Funded from Rates** – Prudent financial planning dictates that a utility should fund a certain portion of capital improvement projects from rates on an on-going basis. The general financial guideline used is that at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. For this study, both the water and sewer utility were reviewed at this level however the rate adjustment would have been very large. Instead a slower approach to achieve this goal was implemented.
- **Establishing a Minimum Debt Service Coverage Ratio** – The debt service coverage ratio is an important financial measure that is reviewed by bond rating agencies and banks to evaluate a utility's ability to make debt service payments. While the County will have a legal obligation to meet a specified minimum DSC, for financial planning purposes it is prudent to plan around meeting a debt service coverage ratio that is above the minimum (e.g. 1.50 –

1.75). The County has by historical practice used General Obligation bonds to fund capital. The GO Bonds are paid through property taxes and are not included in the water or sewer rates. The water and sewer utilities currently do not have any rate financed outstanding debt or anticipated future debt. However, for future planning purposes and for transitioning to an enterprise fund approach, debt service coverage may become an integral component of the rate setting process.

- **Establishing Minimum Reserve Levels** – The County should strive to maintain a cash balance sufficient to meet the total operating expenses for the water and sewer utilities in order to provide sufficient cash flow to meet daily operating expenses. The County’s current policy is to maintain 50% of the overall operating budget in reserves. The financial plan developed for each utility was able to maintain these target reserves at this level during the projected period.

These prudent financial planning practices were used within the County’s study. In addition to these financial planning criteria, certain financial policies related to rate setting were also examined. These policies closely following the prudent financial planning criteria noted above.

Water Rate Study

In conducting the water rate study, the three analyses of a comprehensive rate study were conducted; a revenue requirement analysis, a cost of service analysis and the design of rates. Provided below is a summary of each analysis.

Water Revenue Requirement Analysis – The development of the water revenue requirements was the first analysis undertaken. This analysis is used to determine the overall adequacy of the water utility rates.

A revenue requirement analysis is used to review the overall adequacy of the revenue levels of the utility. This analysis considers the prudent and adequate funding needed to pay for both operation and maintenance (O&M) expenses and capital infrastructure costs. Provided below is a summary overview of the water revenue requirement analysis developed for the County’s water system.

The revenue requirement developed for the County projected revenues and expenses for the time period of FY 2019 through FY 2023. The starting point for developing those projections was the County’s FY 2018 budget. HDR developed a projection of revenues and expenses for the future years based on assumed customer growth and escalation (inflationary) factors.

The County expressed their intention to move the utilities to an “enterprise fund”¹ approach for both the water and wastewater utility. At the present time, the current rates (both water and

¹ The Third Edition of the AWWA Water Utility Accounting manual defines the purpose of an “enterprise fund” is “to account for operations that are financed and operated in a manner similar to private business enterprises – (a) where the intent of the governing body is that the costs (expenses, including depreciation of providing goods and or services) to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has determined that periodic determination of revenues earned, expenses incurred, and or net income is

sewer) appear to be barely funding the current O&M expenses of the utilities. Based on the review of this analysis a gradual transition is needed in order for rates to fully recover O&M, a level of CIP from rates and maintain a minimum cash reserve balance based on County's policy of 50% of O&M expenses. It is important to understand that capital infrastructure costs have historically been funded from the County's General Fund or via issuance of General Obligation (i.e., G.O.) bonds. G.O. bonds are paid from property tax assessments and not through water and sewer rate payments. Shifting to an enterprise fund approach would gradually shift the funding of capital infrastructure away from General Fund/G.O. Bond funding to water/sewer user rates and revenue bonds (i.e., bonds repaid from user rates/charges).

HDR evaluated the results of the revenue requirements from three different perspectives. These perspectives and the level of rate adjustments needed were discussed with the County and resulted in three types of possible rate adjustments as follows.

- A. A rate adjust that would meet the current O&M expenses, but not fund any debt or capital replacement funding
- B. A rate adjustment that would meet the current O&M expenses and capital replacement funding (an amount \geq annual depreciation expense), but not provide any funds for debt service on new future capital infrastructure
- C. A rate adjustment that would fully fund the utility's O&M and capital costs (O&M + capital replacement funding + debt service on future debt issues)

The need for significantly large adjustments (e.g., > 50%) were the result of perspectives B and C. It was quickly recognized that a gradual transition was most appropriate, and given that, rate adjustment "A" was followed along with a rate adjustment transition plan was proposed. In order to keep the rate adjustments at this level all capital projections replacement funding from rates was eliminated except for \$4 million needed for the Aamodt Project which includes \$1 million each year for the next four years. This is in addition to the \$6 million which has already been set aside in County's reserves for this project. A summary of the water revenue requirement analysis is provided below in Table ES-2.

appropriate for capital maintenance, public policy, management control, accountability or other purposes." (p. 41).

**Table ES-2
Summary of the Water Revenue Requirement Analysis (\$000)**

| | Budget 2018 | 2019 | 2020 | Projected 2021 | 2022 | 2023 |
|-----------------------------------|------------------------|----------------|----------------|---------------------------|------------------|------------------|
| Revenues - | | | | | | |
| Present Rate Revenues | 3,814 | 3,841 | 3,869 | 3,897 | 3,925 | 3,953 |
| Other Non-Rate Revenues | <u>211</u> | <u>215</u> | <u>218</u> | <u>222</u> | <u>226</u> | <u>230</u> |
| Total Revenues | \$4,025 | \$4,056 | \$4,087 | \$4,119 | \$4,151 | \$4,183 |
| Expenses - | | | | | | |
| O&M Expenses | \$4,500 | \$4,494 | \$4,503 | \$4,602 | \$4,704 | \$4,809 |
| Capital Outlays From Rates | 0 | 1,000 | 1,000 | 1,000 | 1,000 | 0 |
| Debt Service | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating Reserve (+/-) | <u>(475)</u> | <u>(1,131)</u> | <u>(773)</u> | <u>(471)</u> | <u>(138)</u> | <u>1,230</u> |
| Total Rev. Requirements | \$4,025 | \$4,363 | \$4,731 | \$5,131 | \$5,566 | \$6,039 |
| Total Bal./(Def.) of Funds | \$0 | (\$307) | (\$644) | (\$1,012) | (\$1,415) | (\$1,855) |
| Adj. as % of Rate Revenues | 0.0% | 8.0% | 16.6% | 26.0% | 36.0% | 46.9% |

[1] - The Table is in \$1,000 of dollars.

It should be noted that the balance or deficiencies in any single year are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the following years. Over the five-year period, rates need to be adjusted by approximately 46.9% in order to adequately and properly fund the County's water utility O&M and capital infrastructure needs.

To implement the needed adjustments, a water transition plan was developed. The deficit in 2019, absent any rate adjustments, is approximately \$307,000 and increases to approximately \$1.8 million by 2023. HDR recommends the County increase the overall water utility revenue levels by 8.0% annually starting in FY 2019 through FY 2023. The proposed water rates adjustments are needed to fund O&M, and \$1 million/year for the next four years for Aamodt Project. It is important to note that even with these adjustments, the County will be drawing down reserve funds (transfers) to balance the budget. Absent the proposed rate adjustments, the financial status of the utility is not sustainable. Finally, rate funding for water capital improvement projects (i.e., renewal and replacement capital improvement projects) was not included in this rate transition plan. Over this initial adjustment period the County will have to continue funding capital improvements using the General Fund or thorough G.O. Bonds. Provided in Table ES-3 is the proposed water utility rate transition plan.

**Table ES-3
Summary of the Water Rate Transition**

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Proposed Rate Adjustments | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% |

Water Cost of Service Analysis – A water cost of service analysis is concerned with the equitable allocation of the total water revenue requirements to the various customer classes of service of the utility. The objectives of the water cost of service analysis are different from determining revenue requirements. A revenue requirement analysis determines the utility's overall financial needs, while the cost of service study determines the "fair and equitable" manner to collect those revenue requirements.

The County has different levels of service which they provide to their customers. The different levels of service are retail potable water service and wholesale Domestic Association, potable, and non-potable or raw. The facilities needed to provide water to these different customer groups creates different costs and, ultimately, different rates. As noted above, this analysis is designed to equitably allocate the water revenue requirement to the different groups of customers based upon their levels of service (facility requirements). In allocating the revenue requirement between the different levels of service, consideration was given to the facilities required to provide the service and the costs associated with those facilities. The water cost of service analysis, as developed for the County, conforms to generally accepted water cost of service principles.

As discussed above, there are different costs associated and allocated to the differing levels of service. For example, a potable water customer on the distribution system is allocated costs associated with source of supply, treatment, transmission and distribution facilities. In contrast to this, a wholesale customer reselling potable water would typically be allocated an equitable share of the source of supply, treatment, transmission, but no distribution costs, unless the wholesale customer utilized the County's distribution facilities. Finally, a raw water (i.e., non-potable) customer is allocated costs similar to wholesale potable customers, but treatment costs are excluded.

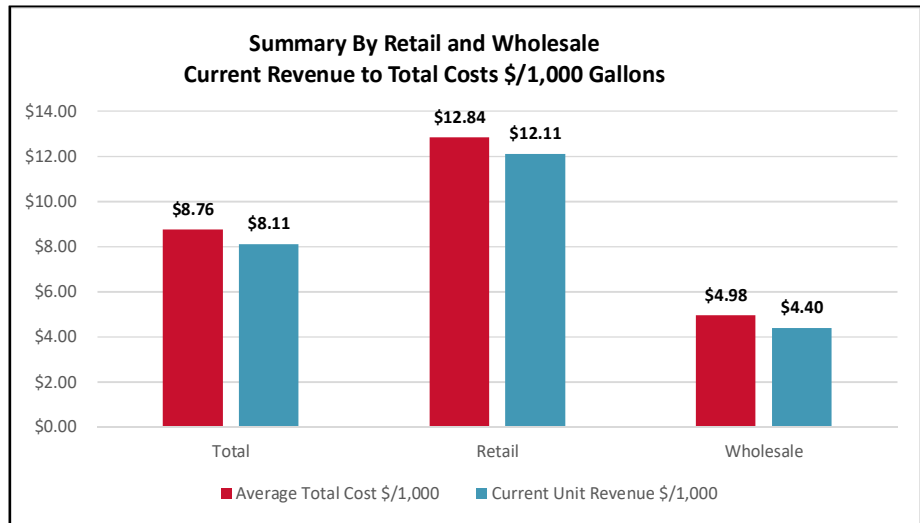
Provided below in Table ES-4 is a summary of the average unit costs for FY 2019 revenue requirement which was allocated between retail (residential, non-residential) and wholesale (domestic associations, State Penitentiary, potable, and non-potable) water customers.

**Table ES-4
Summary of the Water Utility Cost of Service Analysis (\$000's)**

| Classes of Service | Present Rate Revenues | Allocated Costs | \$ Difference | % Difference |
|--------------------|-----------------------|-----------------|---------------|--------------|
| Retail | \$2,760 | \$2,926 | (\$166) | 6.0% |
| Wholesale | <u>1,081</u> | <u>1,222</u> | <u>(141)</u> | <u>13.1%</u> |
| Total | \$3,841 | \$4,148 | (\$307) | 8.0% |

The cost of service results indicate that minor cost differences do exist between the major customer classes of service. The general rule for cost of service suggests that a customer class is paying their fair allocation of costs if the costs of service results are within +/- 5% of the overall adjustment. In viewing the average unit costs, it can be seen that there are differences in costs associated with serving the different types of customers on the County's water system.

As can be seen in the graph, the blue bar is the current average revenue derived from each class of service and the red bar is the average unit cost derived from the cost of service analysis. A key objective in the rate design will be to better align the rates with the costs as shown in the cost of service analysis.



A final comment is warranted in regards to the cost of service analysis. This is the first detailed cost of service that has been conducted for the County's water system. A cost of service is an analysis of customer groups based on a specific point in time. It is based upon the specific usage characteristics and costs incurred during that time period and as these usage characteristics and costs change over time, so will the results of the cost of service. Only through continual review can one become more confident of the cost of service results. Finally, based on the best available information provided to HDR by the County, it appears that some of the wholesale rates were negotiated rates. Given that the utility's information and data is currently combined, it is difficult to segregate water and sewer costs and this was the first attempt to segregate and refine that cost and usage data and information. As the County moves more towards an enterprise fund approach, the cost information associated with this utility will be improved, along with the quality of the cost of service analysis.

Water Rate Design – The final component of the comprehensive rate study is the development

of rates which reflect the overall revenue needs, as developed in the revenue requirement analysis. The rate transition plan from the revenue requirement of 8.0% annual adjustments has been reflected in the rate design by adjusting the meter charge by 46.9%, which is the five year accumulation of 8.0% annual adjustments. The usage charge is adjusted 8.0% per year.

The current residential and non-residential rate structure is composed of a base rate (meter) charge and a four tiered consumption charge four (4) block. The proposed residential and non-residential water rates maintain the current rate structure with a change in tiers from 5,000 to 4,000 increment blocks. Also a fifth tier is added. Presented below in Table ES-5 is a summary of the present and proposed residential water rate schedules.

| Table ES-5 Summary of the Present and Proposed Residential Water Rates | | | | | | |
|---|-------------------------|-------------|-------------|------------------------------|-------------|-------------|
| Rate Components | Present Rate [1] | 2019 | 2020 | Proposed [2] 2021 | 2022 | 2023 |
| Customer Service Fee (Monthly) | | | | | | |
| 5/8" | \$14.50 | \$22.83 | \$22.83 | \$22.83 | \$22.83 | \$22.83 |
| 3/4" | 15.68 | 24.68 | 24.68 | 24.68 | 24.68 | 24.68 |
| 1" | 17.99 | 28.32 | 28.32 | 28.32 | 28.32 | 28.32 |
| 1-1/2" | 38.99 | 61.38 | 61.38 | 61.38 | 61.38 | 61.38 |
| 2" | 40.42 | 63.63 | 63.63 | 63.63 | 63.63 | 63.63 |
| 3" | 51.06 | 96.15 | 96.15 | 96.15 | 96.15 | 96.15 |
| Usage Charge per 1,000 gals | | | | | | |
| First 4,000 | \$6.12 | \$6.43 | \$6.75 | \$7.08 | \$7.44 | \$7.81 |
| Next 4,000 | 8.43 | 8.85 | 9.29 | 9.76 | 10.25 | 10.76 |
| Next 4,000 | 13.02 | 13.67 | 14.35 | 15.07 | 15.83 | 16.62 |
| Next 4,000 | 17.62 | 18.50 | 19.43 | 20.40 | 21.42 | 22.49 |
| Above 16,000 | ---- | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |

[1] – Present rate is four, 5,000 tier blocks.

[2] – Proposed rate is five, 4,000 tier blocks.

The rates are designed to collect the revenue requirement as proposed in the water rate transition plan. The overall revenue requirement rate adjustments are for 8.0% annually from FY 2019 to FY 2023, or 46.9% by FY 2023. In reviewing the water rates with County staff, changes were made to the rate structure for the water rates. The water rates were adjusted from a 5,000 gallon (per tier), four tier structure to a 4,000 gallon (per tier), and five tier increment structure. In addition the total rate adjustment for the five year period was applied in year 1 to the meter charge and the annual rate adjustment (e.g. rate transition plan) to the usage charge. The proposed water rate adjustment, through rate design, is not across the board and instead the meter charge in one year and the consumption annually. This results in an overall 27.3% change or \$12.30 in year 1. Both methods achieve the same overall revenue

target needed by FY 2023. Table ES-6 illustrates this residential bill comparison for a 3.4” meter and an average use of 5,000 gallons.

| Table ES-6 | | | | | | |
|---|----------------|--------------|-------------|-------------|-------------|----------------|
| Monthly Water Residential Bill Comparison at 3/4” Meter, 5,000 Gallons | | | | | | |
| | Present | 2019 | 2020 | 2021 | 2022 | 2023 |
| Present Monthly Residential Water Bill [1] | \$45.10 | | | | | |
| Projected Monthly Residential Water Bill [2] | | \$48.71 | \$52.61 | \$56.82 | \$61.13 | \$66.28 |
| \$ Change Per Month | | \$3.61 | \$3.90 | \$4.21 | \$4.55 | \$4.91 |
| \$ Cumulative Per Month | | \$3.61 | \$7.51 | \$11.72 | \$16.27 | \$21.18 |
| Overall Change Across Board | | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% |
| Projected Monthly Residential Water Bill [3] | | \$57.40 | \$59.12 | \$60.91 | \$62.84 | \$64.83 |
| \$ Change Per Month | | \$12.30 | \$1.72 | \$1.79 | \$1.93 | \$1.99 |
| \$ Cumulative Per Month | | \$12.30 | \$14.02 | \$15.81 | \$17.74 | \$19.73 |
| Overall Proposed Change | | 27.3% | 3.0% | 3.0% | 3.2% | 3.2% |

[1] – Present Rate = \$14.50 + (\$6.12 X 5) = \$45.10

[2] – Across the Board Rate = \$45.10 X 8% = \$45.71.

[3] – Proposed Rate = \$22.83 + (\$6.43 X 4) + (\$8.85 X 1) = \$57.40.

Presented below in Table ES-7 is a summary of the present and proposed non-residential water rate schedules.

| Table ES-7 | | | | | | |
|--|-------------------------|-------------|-------------|---------------------|-------------|-------------|
| Summary of the Present and Proposed Non-Residential Water Rates | | | | | | |
| Rate Components | Present Rate [1] | 2019 | 2020 | Proposed [2] | 2022 | 2023 |
| Customer Service Fee (Monthly) | | | | | | |
| 5/8" | \$30.68 | \$48.30 | \$48.30 | \$48.30 | \$48.30 | \$48.30 |
| 3/4" | 43.59 | 68.62 | 68.62 | 68.62 | 68.62 | 68.62 |
| 1" | 69.42 | 109.28 | 109.28 | 109.28 | 109.28 | 109.28 |
| 1-1/2" | 133.99 | 210.93 | 210.93 | 210.93 | 210.93 | 210.93 |
| 2" | 211.46 | 332.89 | 332.89 | 332.89 | 332.89 | 332.89 |
| 3" | 407.77 | 641.93 | 641.93 | 641.93 | 641.93 | 641.93 |
| 4" | 484.45 | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Usage Charge per 1,000 gals | | | | | | |
| First 4,000 | \$5.91 | \$6.21 | \$6.52 | \$6.84 | \$7.18 | \$7.54 |
| Next 4,000 | 8.16 | 8.57 | 9.00 | 9.45 | 9.92 | 10.41 |
| Next 4,000 | 12.65 | 13.28 | 13.95 | 14.64 | 15.38 | 16.14 |
| Next 4,000 | 17.07 | 17.92 | 18.82 | 19.76 | 20.75 | 21.79 |
| Above 16,000 | ---- | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |

[1] – Present rate is four, 5,000 tier blocks.

[2] – Proposed rate is five, 4,000 tier blocks.

The wholesale class of service includes the Domestic Association, which includes the Agua Fria Community and the State Penitentiary, wholesale potable which includes the Santa Fe Community College and Las Campanas Co-Op, and wholesale non-potable or raw which is the Club at Las Campanas. The wholesale rates pay a meter charge based on the Non-Residential meter charge along with a contract rate that is specified in each contract to be equal to cost of service.

For FY 2019, the wholesale rate is set at the Non-Residential meter charge rate. The usage charge for FY 2019 is set equal to the average cost of both the Buckman Direct Diversion (BDD) and City wholesale cost that occurs when the BDD is down. Presented below in Table ES-8 is a summary of the present and proposed wholesale water rate schedules.

Table ES-8
Summary of the Present and Proposed Wholesale Water Rates

| Rate Components | Present Rate [1] | 2019 | 2020 | Proposed 2021 | 2022 | 2023 |
|--|------------------|----------|----------|---------------|----------|----------|
| Customer Service Fee (Monthly) | | | | | | |
| 3" | \$407.77 | \$641.93 | \$641.93 | \$641.93 | \$641.93 | \$641.93 |
| 4" | 484.45 | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Usage Charge per 1,000 gals¹ | | | | | | |
| Domestic Assoc. | \$3.22 | \$6.54 | \$6.74 | \$6.93 | \$7.14 | \$7.14 |
| Potable | 5.47 | 6.54 | 6.74 | 6.93 | 7.14 | 7.14 |
| Non-Potable | 4.01 | 4.32 | 4.45 | 4.58 | 4.72 | 4.72 |

Sewer Rate Study

The comprehensive sewer rate study was developed using the same analytical framework as the water rate study. This analytical framework included the development of sewer revenue requirements, cost of service and the review of sewer rate designs. Provided below is a summary of the findings, conclusions and recommendations of the sewer rate study.

Sewer Revenue Requirement Analysis - The same general approach and methodology that was used for the water utility was utilized in developing the sewer revenue requirement analysis. This methodology included the use of the “cash basis” methodology. As with the water analysis, the starting point of the sewer revenue requirement analysis was the County’s FY 2018 budget. HDR developed a projection of revenues and expenses for the FY 2019 – FY 2023 projected time period based on assumed customer growth and escalation (inflationary) factors. Shown below in Table ES-9 is a summary of the sewer revenue requirement analysis.

**Table ES-9
Summary of the Sewer Revenue Requirement Analysis (\$000)**

| | Budget 2018 | 2019 | 2020 | Projected 2021 | 2022 | 2023 |
|-----------------------------------|------------------------|-------------|--------------|---------------------------|--------------|--------------|
| Revenues - | | | | | | |
| Present Rate Revenues | \$486 | \$490 | \$494 | \$497 | \$501 | \$505 |
| Other Non-Rate Revenues | <u>39</u> | <u>39</u> | <u>40</u> | <u>40</u> | <u>41</u> | <u>41</u> |
| Total Revenues | \$525 | \$529 | \$533 | \$537 | \$542 | \$546 |
| Expenses - | | | | | | |
| O&M Expenses | \$673 | \$578 | \$621 | \$643 | \$664 | \$687 |
| Capital Outlays From Rates | 0 | 0 | 0 | 0 | 0 | 0 |
| Debt Service | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating Reserve (+/-) | <u>(148)</u> | <u>(29)</u> | <u>(46)</u> | <u>(40)</u> | <u>(33)</u> | <u>(24)</u> |
| Total Rev. Requirements | \$525 | \$549 | \$575 | \$603 | \$632 | \$663 |
| Total Bal./(Def.) of Funds | \$0 | (\$20) | (\$42) | (\$65) | (\$90) | (\$117) |
| Adj. as % of Rate Revenues | 0.0% | 5.5% | 11.3% | 17.4% | 23.9% | 30.7% |

[1] - The Table is in \$1,000 of dollars.

The results of the sewer revenue requirements indicate deficiencies over the five-year period. This revenue requirement analysis has only funded O&M and excludes any funding for capital infrastructure. As a result, the County will need to continue to fund sewer infrastructure from the County's General Fund or from G.O. Bonds. It should be noted that the balance or deficiencies in any single year are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the following years. Over the five-year period, rates need to be adjusted by approximately 30.7% in order to adequately and properly fund the County's sewer utility O&M and capital infrastructure needs.

The County currently has a 2014 ordinance in place to raise sewer rates by approximately 3.7% annually through 2019. A sewer rate transition plan was developed for this utility. The deficit in 2019, absent any rate adjustments, is approximately \$20,145 and increases to approximately \$117,000 by 2023. HDR recommends the County increase the overall sewer utility revenue levels by 5.5% annually through FY 2023. Finally, rate funding for sewer capital improvement projects (i.e., renewal and replacement capital improvement projects) was not included in this rate transition plan. As a result, the County will need to continue to fund sewer infrastructure from the County's General Fund or from G.O. Bonds. Provided in Table ES-10 is the proposed sewer utility rate transition plan.

| Table ES-10 | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| Summary of the Sewer Rate Transition Plan | | | | | |
| | 2019 | 2020 | 2021 | 2022 | 2023 |
| Proposed Rate Adjustments | 5.5% | 5.5% | 5.5% | 5.5% | 5.5% |

Sewer Cost of Service Analysis - Similar to the water cost of service analysis, a sewer cost of service analysis is concerned with the equitable allocation of the total sewer revenue requirements to the various customer classes of service of the utility. The County’s sewer cost of service is not as complex as the water. The level of service is essentially retail and related to residential and non-residential customers. The only specific direction the County requested is to review the State Penitentiary within the cost of service.

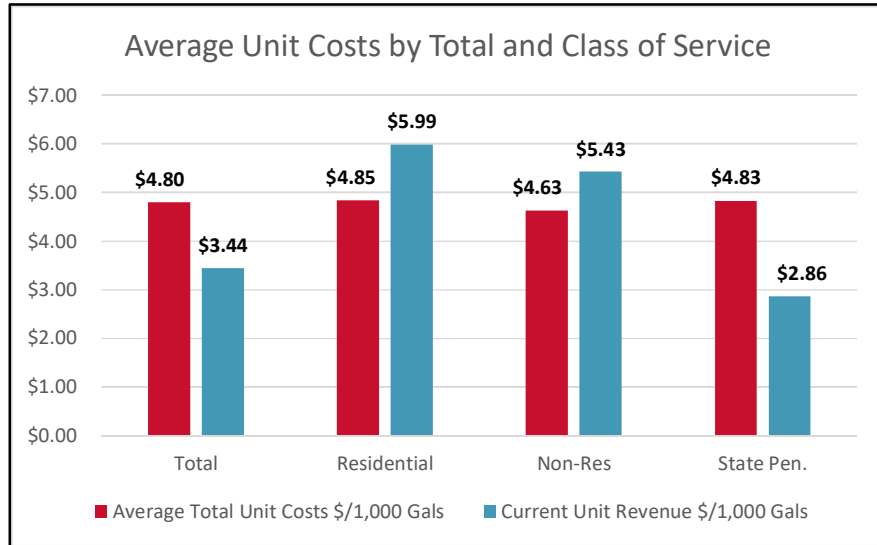
The State Penitentiary currently has a contract with the County which calls for a flat rate of \$10,304 a month. HDR understands this cannot be changed at this time. The resulting cost of service showed the State Penitentiary revenues were not meeting their cost of service. Similar to the discussion around the water cost of service analysis, a sewer cost of service is a snap shot in time and is based on estimated wastewater volumes and customer data which can change over time or be variable. HDR believes the results shown herein are reasonable given the limitations of the County’s data and information.

Provided below in Table ES-11 is a summary of the sewer cost of service analysis.

| Table ES-11 | | | | |
|--|------------------------------|------------------------|----------------------|---------------------|
| Summary of the Sewer Utility Cost of Service Analysis (\$000’s) | | | | |
| Classes of Service | Present Rate Revenues | Allocated Costs | \$ Difference | % Difference |
| Residential | \$254 | \$206 | (\$48) | -19.1% |
| Non-Residential | 112 | 96 | (16) | - 14.7% |
| State Penitentiary | <u>123</u> | <u>208</u> | <u>85</u> | <u>68.8%</u> |
| Total | \$489 | \$510 | \$20 | 5.5% |

The cost of service results for the sewer utility shows that there is a cost of service difference between the State Penitentiary. However this was the first time conducting a cost of service study and there was not sufficient customer usage and strength information to determine the overall results as accurate.

Provided below is a graphical comparison of the current average revenue derived from each customer group (blue bar) and the allocated average unit cost (red bar) from the cost of service analysis.



Sewer Rate Design – The current retail (residential and non-residential) rate structure is a monthly

fixed fee, along with a volume (consumption) charge based per 1,000 gallon basis. The first 1,000 gallons of a customer’s consumption is included in the monthly meter charge. The County currently bills based on an average winter water average. This has been proposed to be changed so customers are billed on total water usage to simplify the billing process. Provided below in Table ES-12 is a summary of the current and proposed sewer rates for FY 2019 – FY 2023.

| Table ES-12 Summary of the Present and Proposed Sewer Rates | | | | | | |
|--|--------------|--------|--------|---------------|--------|---------|
| Rate Components | Present Rate | 2019 | 2020 | Proposed 2021 | 2022 | 2023 |
| Customer Service Fee (Monthly) | \$8.18 | \$8.59 | \$9.02 | \$9.47 | \$9.94 | \$10.44 |
| Usage Charge | | | | | | |
| > than 1,000 gallons | \$4.89 | \$5.10 | \$5.31 | \$5.54 | \$5.77 | \$6.01 |

The rates are designed to collect the revenue requirement as proposed in the sewer rate transition plan. The overall revenue requirement rate adjustments are for 5.5% annually from FY 2019 to FY 2023. This results in an overall 4.5% change to a residential customer with an average usage of 5,000 gallons. Table ES-13 illustrates this residential bill comparison.

Table ES-13
Monthly Sewer Residential Bill Comparison at 5,000 Gallons

| | Present | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|---------|-------------|-------------|-------------|-------------|-------------|
| Present Monthly Residential Water Bill [1] | \$27.74 | | | | | |
| Projected Monthly Residential Water Bill | | \$28.99 | \$30.26 | \$31.63 | \$33.02 | \$34.48 |
| \$ Change Per Month | | \$1.25 | \$1.27 | \$1.37 | \$1.39 | \$1.46 |
| \$ Cumulative Per Month | | \$1.25 | \$2.52 | \$3.89 | \$5.28 | \$6.74 |
| Overall Proposed Change | | 4.5% | 4.4% | 4.5% | 4.4% | 4.4% |

[1] - \$8.18 (1 included) + (\$4.89 X 4) = \$27.74; \$8.59 (1 included) + (\$5.10 X 4) = \$28.99.

Summary

The previous discussion has provided an executive summary of the rate analyses undertaken for the County’s water and sewer utilities. In summary, it was concluded that the County’s water and sewer rates appear to be fair and equitable and set at a level that generally meets the County’s current overall costs. Adjustments to the water and sewer rates in FY 2019 and annually through FY 2023 are proposed to maintain cost-based rate levels and to help maintain the financial sustainability of the County. Included within this report are Technical Appendices, which documents all the analyses undertaken, along with our findings, conclusions and recommendations.

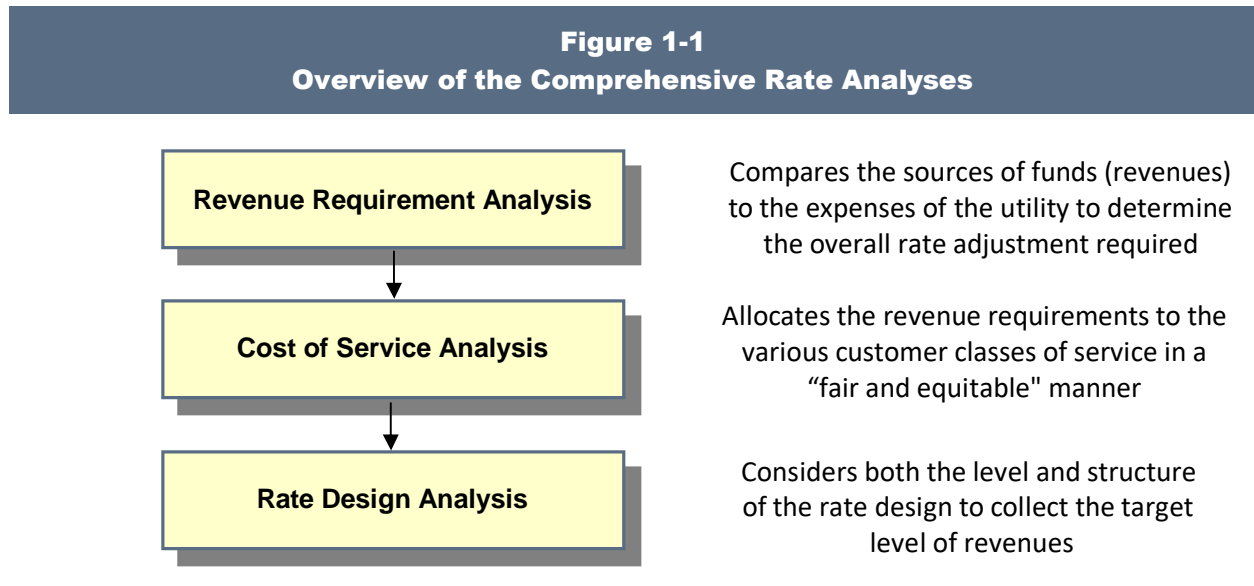
1.0 Introduction

1.1 Introduction

HDR Engineering, Inc. (HDR) was retained by Santa Fe County (County) to conduct a comprehensive water and sewer rate study. The objective in conducting comprehensive water and sewer rate studies is to develop cost-based rates which adequately fund the County’s operation and maintenance (O&M) needs, along with the necessary capital improvements (i.e., capital infrastructure) for each utility. This study determines the adequacy of the existing water and sewer rates and provides the analytical framework for any needed future adjustments.

1.2 Overview of the Rate Study Process

User rates must be set at a level where a utility’s operating and capital expenses are met with the revenues received from customers. To evaluate the adequacy of the existing rates, a comprehensive water and sewer rate study is often performed. A comprehensive water and sewer rate study consists of three interrelated analyses. Figure 1-1 provides an overview of these analyses.



In conducting the County’s water and sewer rate study, each of these analyses has been conducted for the water and sewer utility. In this process, the analyses were tailored to reflect the specific and unique circumstances of the County and the specific utility being analyzed.

1.3 Organization of the Study

This report is organized in a sequential manner that first provides an overview of utility rate setting principles, followed by sections that detail the specific steps used to review the County’s water and sewer rates. The following sections comprise the County’s water and sewer rate study report:

- Section 2 – Overview of Utility Rate Setting Principles
- Section 3 – Development of the Water Rate Analyses
- Section 4 – Development of the Sewer Rate Analyses

Technical Appendices are attached at the end of this report, which details the various water and sewer rate analyses that were used in the preparation of this report.

1.4 Summary

This report will review the comprehensive water and sewer rate analyses prepared for the County. This report has been prepared utilizing “generally accepted” water and sewer rate setting principles and methodologies and it is consistent with the County’s philosophy of establishing cost-based rates. The next section of the report will provide a brief overview of the general rate setting process that was used to analyze and establish the proposed water and sewer rates for the County.

2.0 Overview of Utility Rate Setting Principles

2.1 Introduction

This section of the report provides background information about the water and sewer rate setting process, including descriptions of generally accepted principles, types of utilities, methods of determining a revenue requirement, the cost of service analysis, and rate design. This information is useful for gaining a better understanding of the details presented in the following sections of the report.

In developing and establishing utility rates, there are “generally accepted” principles or guidelines around which rates should be set.

2.2 Generally Accepted Rate Setting Principles

As a practical matter, all utilities should consider setting their rates around some generally accepted or global principles and guidelines. Utility rates should be:

- Cost-based, equitable, and set at a level that meets the utility’s full revenue requirement.
- Easy to understand and administer.
- Designed to conform with “generally accepted” water and sewer rate setting techniques.
- Stable in their ability to provide adequate revenues for meeting the utility’s financial, operating, and regulatory requirements.
- Established at a level that is stable from year-to-year from a customer’s perspective.

These guiding principles were utilized within this study to help develop utility rates that are cost-based and equitable.

2.3 Developing Revenue Requirements

Most public utilities use the “cash basis” approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility totals its cash expenditures for a period of time to determine required revenues. The revenue requirement for a public utility is usually comprised of the following costs or expenses:

- **Total Operating Expenses:** This includes a utility’s operation and maintenance (O&M) expenses, plus any applicable taxes or transfer payments. Operation and maintenance expenses include the materials, electricity, labor, supplies, etc., needed to keep the utility functioning.
- **Total Capital Expenses:** Capital expenses are calculated by adding debt service payments (principal and interest) to capital improvements financed with rate revenues. In lieu of including capital improvements financed with rate revenues, a utility sometimes includes depreciation expense to stabilize the annual revenue requirement.

Under the “cash basis” approach, the sum of the total O&M expenses plus the total capital expenses equals the utility’s revenue requirement during any selected period of time (historical or projected). Table 2-1 may be helpful in providing an overview and summarizing the “cash basis” revenue requirement methodology.

Table 2-1
Overview of the “Cash Basis” Revenue Requirement Methodology

| | |
|--|--|
| + O&M Expense | |
| + Taxes or Transfer Payments | |
| + Capital Improvements Financed with Rate Revenues (\geq Depreciation Exp.) | |
| <u>+ Debt Service (P+I)</u> | |
| = Total Revenue Requirements | |
| <u>– Miscellaneous Revenues (Excluding Connection Fees)</u> | |
| = Balance Required from Rate Revenues | |

Note that the two portions of the capital expense component (debt service and capital improvements financed from rates) are necessary under the cash basis approach because utilities generally cannot finance all their capital improvements with long-term debt. At the same time, it is often difficult to pay for all capital improvements on a “pay-as-you-go” basis given that some major capital projects may have significant rate impacts upon a utility, even when financed with long-term debt. Many utilities have found that some combination of pay-as-you-go funding and long-term financing will often lead to minimization of rate increases over time.

2.4 Analyzing Cost of Service

After the total revenue requirement is determined for each utility, it is then equitably allocated to the users of the water or sewer service. The allocation, usually analyzed through a cost of service analysis, reflects the cost relationships for producing and delivering water services or collecting and treating wastewater. A cost of service analysis requires three analytical steps:

1. Costs are *functionalized* or grouped into the various cost categories related to providing service (e.g., for water; supply, distribution, pumping, etc.). This step is largely accomplished by the utility’s accounting system.
2. The functionalized costs are then *classified* to specific cost components. Classification refers to the arrangement of the functionalized data into cost components. For example, a water utility’s costs are typically classified as being related to meeting commodity (total flow), capacity (peak use), customer, or fire protection-related needs. For a sewer utility, costs are typically classified to volume (total flow), strength and customer related components.
3. Once the costs are classified into cost components, they are proportionally *allocated* to the customer classes of service (residential, commercial, etc.). The allocation is based on each customer class’ relative contribution to the cost component (i.e., benefits received from and burdens placed on the system and its resources). For example, customer-related costs are allocated to each class of service based on the total number of customers in that class of service. Once costs are allocated, the revenues from each customer class of service required to achieve cost-based rates can be determined.

At the conclusion of the cost of service study, two key pieces of information are provided. First, the cost of service provides an understanding of the total revenues to be collected from each class of service. In other words the water revenue requirement is, for example, \$10.0 million and the cost of service provides an equitable method to assign that total cost of \$10.0 between the various water customer classes of service (e.g., residential, commercial, irrigation, low-income, etc.). The other important piece of information provided by the cost of service analysis is the average unit costs. Average unit costs are the allocated costs divided by the appropriate consumption (billing) units. This provides an understanding of the cost on a \$/customer/month and \$/hundred cubic feet (CCF) basis. These average unit costs are essentially cost-based rates.

Within this study, a cost of service analysis was conducted for both the water and sewer utility systems.

2.5 Designing Rates

The design of the proposed water and sewer rates for adoption by the County concludes the analytical portion of the rate study process. In designing proposed water and sewer rates, the results from both the revenue requirement and cost of service analysis is used to develop rates that achieve the overall goals and objectives of the County. These goals and objectives may include consideration of cost-based rates, but may also consider items such as ability to pay, continuity of past rate philosophy, conservation (efficient use), encouragement of economic development, ease of customer understanding and billing administration, legal requirements, etc. It is important to understand that cost of service is only one goal or objective in designing final water and sewer rates, however, it is an important one.

While the general description of the utility rate setting process discussed in this section of the report is greatly simplified and abbreviated, it does however address the basic elements of contemporary regulatory thinking. One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost, if equity among customers is to be maintained. The implications of this statement on utility rate setting are significant. For example, capacity-related costs are usually incurred by a water utility to meet peak use requirements. Thus, the customers causing peak demands should properly pay for the demand-related facilities in proportion to their contribution to maximum demands. Utility regulation and pricing has always focused on this “cost-equals-price” concept. This approach to pricing provides the basis for much of the subsequent analysis, comment and, ultimately, HDR’s rate recommendations.

Economic theory suggests that the price of a commodity must roughly equal its cost, if equity among customers is to be maintained.

2.6 Prudent Financial Planning

In developing revenue requirements, the County's FY 2018 budget document was used as the initial starting point. However, within the development of the revenue requirements, the analysis should also consider prudent financial planning criteria. There are at least three key financial indicators that should be considered in the development of all utility financial plans or revenue requirement analyses. These three financial planning criteria are: establishing minimum funding levels for capital projects funded from rates, establishing a minimum target debt service coverage ratio, and establishing minimum reserve levels. The following discussion provides a brief overview of each of these financial planning indicators.

- **ESTABLISHING A MINIMUM FUNDING LEVEL FOR CAPITAL PROJECTS FUNDED FROM RATES**

Prudent financial planning dictates that a utility should fund a certain portion of their capital improvement projects from rates on an on-going basis. As facilities become worn out or obsolete, they should be replaced to maintain system integrity. A common general financial guideline often used by utilities is that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. However, there are at least three reasons to increase the level of capital funding through rates above this suggested minimum level of funding. First, funding levels over and above depreciation expense better reflect actual replacement cost. Next, increasing the level of capital funding from rates will help provide cash flow to fund the capital plan in future years, and minimize any long-term borrowing needs. Finally, an increased level of rate funding for capital projects will have the added benefit of strengthening the utility's debt service coverage ratio.

- **ESTABLISHING A MINIMUM TARGET DEBT SERVICE COVERAGE RATIO**

The debt service coverage ratio is an important financial measure that is reviewed by bond rating agencies and banks to evaluate a utility's ability to make debt service payments. For revenue bonds, there is typically a legal requirement (rate covenant) to meet a minimum debt service coverage ratio. The debt service coverage ratio is calculated by subtracting total O&M and taxes from total revenues. The resulting amount is the balance available for debt service payment. The balance available for debt service is then divided by the annual debt service

Understanding the Relationship between Depreciation and Rates

ACCOUNTING TERMINOLOGY OF DEPRECIATION

Example: A utility purchases a piece of equipment for \$10,000 and assumes a 10 year life for accounting purposes.

Annual Depreciation Expense –

The annual depreciation expense for income statement purposes would be \$1,000 ($\$10,000 \div 10$ years = \$1,000/year of depreciation expense).

Accumulated Depreciation – The sum of the annual depreciation expense since the equipment item was placed in service. Using the above example, after four (4) years, the accumulated depreciation would be \$4,000 ($\$1,000 \times 4$ years). Accumulated depreciation is a balance sheet item and not typically a rate item.

DEPRECIATION, CAPITAL IMPROVEMENT

FUNDING AND RATES - As a general financial guideline, a utility should fund, at a minimum, an amount within its rates equal to or greater than annual depreciation expense for renewal and replacement capital projects. In the above example, this would imply a minimum funding within the rates of \$1,000 per year.

obligations (payments) to determine the debt service coverage ratio. For a revenue bond, most bond covenants require meeting a minimum coverage ratio of 1.25 – 1.30. While the County would have a legal obligation to meet the minimum, for financial planning purposes it is prudent to plan around meeting a debt service coverage ratio that is above the minimum (e.g. 1.50 – 1.75). In that way, if the utility has any negative financial fluctuations (e.g. cool/wet summer, low sales/revenues), they will be much more assured of still meeting the required minimum. At the same time, by planning around a higher debt service coverage ratio, the County will appear financially stronger to the bond rating agencies, which may translate into a higher bond rating and possibly result in lower interest rates on borrowing. Bond rating agencies do not want utilities to financially plan around simply meeting the minimum.

- **ESTABLISHING MINIMUM RESERVE LEVELS**

Reserve levels are a crucial part of a utility’s financial picture. Typically utilities maintain several different types of reserve funds. These may include: an operating reserve, a capital (replacement) reserve, an emergency or contingency reserve, a bond reserve, and a rate stabilization reserve. Each of these reserves has its own financial, operating or legal requirements which may set an established minimum reserve level (e.g. a bond reserve). A key aspect of reviewing reserve levels was determining target minimum levels for the County’s current reserves. It is important to remember that when reserves fall below the targeted minimum level, management should review the cause of the declining reserves and determine what action, if any, should be taken. Maintenance of minimum reserve levels should not, on its own, trigger the need for a rate adjustment. However, after two consecutive years of diminishing reserves as a result of under-recovery of costs, rates should be reviewed.

The above key financial planning criteria are main drivers in the County’s study. Other prudent financial planning criteria beyond those cited above were used within the County’s study. As the study is discussed in more detail, these other financial planning criteria will be discussed at that time.

2.7 County’s Financial/Rate Setting Policies

As a part of the rate study process the County’s financial policies were reviewed for polices that would apply in the rate setting process. By establishing financial/rate setting policies, it provides County management with clear policy direction concerning these key financial measures and parameters. Provided below is a brief discussion of each of the key financial/rate setting policy issues addressed as a part of this study and the County’s policy if applicable. The key policy issues provided a decision framework for key areas of the study.

By establishing financial/rate setting policies, it provides County management with clear policy direction concerning these key financial measures and parameters.

- ✓ **MAINTENANCE (OPERATING) RESERVES – THE COUNTY SHOULD STRIVE TO MAINTAIN A CASH BALANCE THAT IS SUFFICIENT TO MEET DAILY OPERATING EXPENSES.**

Cash working capital, or operating reserves, is needed to meet daily cash flow needs, and to minimize reliance on short-term borrowing. The County’s current policy is to maintain 50% of the overall operating budget in reserves.

- ✓ **CAPITAL IMPROVEMENT (GROWTH) RESERVE – THE COUNTY SHOULD STRIVE TO MAINTAIN A CAPITAL IMPROVEMENT RESERVE.**

The capital improvement reserve should be set at a minimum level equal to an amount of the utilities annual depreciation expense. The County does not have an established policy at this time.

- ✓ **MINIMUM FUNDING OF CAPITAL OUTLAY FROM RATES/DEPRECIATION – EACH UTILITY SHOULD ANNUALLY BUDGET AND FUND A REASONABLE AMOUNT OF THE COST FOR “DEPRECIATION” OF CAPITAL ASSETS AS AN EXPENSE WITHIN THE UTILITY’S OPERATING BUDGET.**

This policy is designed to properly fund a capital program that is intended to assure long-term system reliability and efficiency. A well thought out and fully funded replacement program will extend the life of the County’s utility system and in turn reduce infrastructure costs over the long-term. A utility should fund a certain portion of capital improvement projects from rates on an on-going basis. A general financial guideline that can be used to determine minimum funding levels for capital improvements funded from rates is an amount equal to or greater than annual depreciation expense. The County does not have an established policy at this time.

- ✓ **MINIMUM DEBT SERVICE COVERAGE RATIO – THE COUNTY SHOULD STRIVE FOR A MINIMUM DEBT SERVICE “COVERAGE” RATIO NECESSARY TO SATISFY ITS OUTSTANDING REVENUE BOND COVENANTS**

The debt service coverage (DSC) ratio is a financial measure of the utility’s ability to repay outstanding debt. Typically, a utility must maintain a minimum of a 1.25 DSC on outstanding revenue bond debt. Failure to meet the minimum DSC for an outstanding debt obligation is considered to be technical default, making the bonds callable or payable upon demand. Therefore, it is critical that the utility meet this legal requirement. For the County, the net revenue of the combined utilities (gross revenue of the utilities less operating and maintenance expenses) must currently equal at least 1.25 times the County’s annual revenue bond debt service payments. It is recommended that the County target a minimum DSC of 1.50 for financial planning purposes. The County does not have any outstanding rate related debt.

- ✓ **COMPREHENSIVE UTILITY RATE STUDIES – COMPREHENSIVE UTILITY RATE STUDIES SHOULD BE CONDUCTED AT LEAST EVERY FIVE YEARS TO UPDATE ASSUMPTIONS AND ENSURE LONG-TERM SOLVENCY AND VIABILITY OF THE COUNTY’S UTILITIES.**

The County’s systems and costs change over time. It is prudent for the County to conduct a comprehensive rate study at least every five (5) years. It should be noted that the use of five years should tie to the comprehensive (master) planning period.

2.8 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set utility rates. These principles, techniques, and economic theory were the basis for the rate study and the foundation used to meet the County's key objectives in establishing their water and sewer rates. At the same time, the County has an established set of financial/rate setting policies to aid in adequately and consistently establishing their water and sewer rates.

3.0 Development of the Water Rate Study

3.1 Introduction

This section of the report will discuss the rate analysis developed for the County’s water utility. A key objective or goal of a water rate study is to develop water rates which are “fair and equitable” and adequately fund the operating and capital requirements of the County’s water utility. In the rate study process, the water utility should be viewed on a "stand alone" basis, capable of financially supporting its operating and capital needs. Avoidance of subsidies between the County’s water and sewer utilities is an important concept given that not all sewer customers are also water customers and vice versa.

In developing the comprehensive water rate study for the County, three interrelated analyses were conducted. First, a revenue requirement analysis was conducted to determine the overall operating and capital funding needs of the water utility. Next, a cost of service analysis was conducted to provide an equitable method of allocating the County’s water revenue requirements between the various types of customers (e.g., residential, non-residential, wholesale, etc.).

A key objective or goal of a water rate study is to develop water rates that are “fair and equitable” and adequately fund the operating and capital requirements of the utility.

Finally, given the level of funding required and a method to equitably allocate costs, water rates can be designed to collect the appropriate level of revenues, while considering any other County rate design objectives (e.g. conservation, revenue stability, ease of administration, etc.). This section of the report will review each of the analytical steps of the comprehensive water rate study and discuss the key assumptions, findings and conclusions of each. At the end of this section of the report, the proposed and recommended water rates for FY 2019 through FY 2023 are provided.

In the development of the water rate analyses, the County assisted in the study by developing the revenue requirements. HDR worked with the County to review and finalize the revenue requirements and then developed the cost of service analysis and rate design analysis.

3.2 Development of the Water Revenue Requirements

The development of revenue requirements is the first step in the rate study process. A revenue requirement analysis determines the adequacy of the overall level of water rates. From this analysis, a determination can be made as to the level of water rate adjustment needed to provide adequate and prudent funding for both operating and capital needs. This determination includes the development of a rate transition plan to smoothly implement any needed water rate adjustments.

The County’s documents for the FY 2018, consumption data, wholesale water contracts, and capital improvements plan were used to complete the revenue requirements. In this process, a number of items were calculated independently. Specifically, these items were the projection

of rate revenues, purchased water expenses, and reserve levels. Provided below is a detailed discussion of the development of the water utility revenue requirements.

3.2.1 Determination of Time Period and Method of Accumulating Costs

The initial step in calculating the revenue requirement for the water utility was to establish a “test period”, or time frame of reference for the revenue requirement analysis. For this particular study, the revenue requirements were developed for a five-year projected time period (FY 2019 – FY 2023). Reviewing a multi-year time period is generally recommended in an attempt to identify any major expenses that may be on the horizon. By anticipating future financial requirements the County can begin planning for these changes sooner, thereby, minimizing short-term water rate impacts and water rates over the long-term.

In developing the County’s revenue requirements, a “cash basis” approach was utilized. Section 2 provided a brief overview of the “cash basis” approach. This method of establishing the County’s water revenue requirements has been used, but “tailored” to follow the County’s system of accounts. While it has been “tailored” to follow the County’s approach, it still contains the four major cost components of the “cash basis” methodology. Table 3-1 provides a summary of the approach that was used to develop the County’s water revenue requirements.

**Table 3-1
Overview of the Water Utility Revenue Requirements**

| | |
|---|---|
| + | Operation and Maintenance Expenses |
| ✓ | Purchased Water |
| ✓ | Operations and Maintenance |
| ✓ | Other O&M Expenses |
| + | Transfer/Cash Working Capital |
| + | Net Capital Improvements Funded From Rates (calculated below) [1] |
| + | <u>Debt Service (P+I) Existing and Future</u> |
| = | Total Water Revenue Requirements |
| <i>[1] Net Capital Improvements Funded From Rates</i> | |
| + | Total Water Capital Improvement Projects |
| – | Funding Sources Other Than Rates |
| ✓ | Water Connection Fees |
| ✓ | Reserves |
| ✓ | <u>Long Term Debt Issues</u> |
| = | Net Capital Improvements Funded From Rates [1] |

Given a time period around which to develop the revenue requirements, and a method to accumulate the costs, the focus can shift to the projection of revenues and expenses for the County’s water utility. The primary financial inputs in this process were the County’s historical billing records, the County’s capital improvement plan and the County’s FY 2018 budget document for expenses.

3.2.2 Water Rate and Other Miscellaneous Revenues

The revenue requirement calculation begins with a projection of rate revenues at present rate levels. The revenue at present rates was calculated by reviewing historical rate revenues and adding assumed customer growth. Customer growth was assumed to be 0.6% in FY 2018 and increased to 1% annually through FY 2023. The total water rate revenues for year FY 2018 are approximately \$3.8 million. The FY 2018 revenue estimates were based on customer data and the current rate schedule. In total and over time, the rate revenue before any rate adjustments is projected to be approximately \$3.9 million in FY 2023.

The water utility also receives a variety of miscellaneous revenues unrelated to the sale of water. These revenues are received from sources such as inspections, service charges, and interest income. Miscellaneous revenues vary by year and in this analysis, they range from approximately \$210,000 in 2018 to approximately \$230,000 in 2023.

In total, the County is projected to receive approximately \$4.0 million in revenues in FY 2018, which increases over time to \$4.3 million in projected FY 2023.

3.2.3 Projection of Water Operation and Maintenance Expenses

In general, operation and maintenance expenses are grouped into functional areas or services (e.g. operations, meter reading, etc.). Escalation factors were developed for the various types of expenses that the County incurs: power, labor, materials and supplies, equipment, miscellaneous, and depreciation. The escalation factors applied range from 4.0% to 8% per year. The higher escalation factor reflected the significantly higher costs associated with medical benefits. The majority of costs were escalated in the range of 1.0% to 3.0% per year, depending upon the specific type of costs.

The County's FY 2018 budget document expenses were used as a starting point to project future O&M expenses. Future year projections were calculated by applying an applicable escalation factor. Total O&M expenses are approximately \$4.4 million in FY 2018. With assumed escalation, the O&M expenses are projected to be approximately \$4.8 million in FY 2023. No extraordinary O&M expenses are projected over this time period.

Wholesale (Purchased) Water Costs – The County purchases its water supply from Buckman Direct Diversion (BDD) Project under a wholesale water agreement. The FY 2018 purchases from the BDD are \$2.0 million and are estimated to increase to \$2.2 million by FY 2023.

3.2.4 Projection of Water Capital Improvement Projects and Funding

A general financial guideline that can be used to determine proper funding levels for capital improvements from rates is that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. Annual depreciation expense reflects the current investment in plant that is being

A general financial guideline that can be used to determine proper funding levels for capital improvements from rates is that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense.

depreciated or “losing” its useful life. Therefore, this portion of plant investment needs to be replaced (funded) to maintain the existing level of infrastructure. It must be kept in mind that, in theory, annual depreciation expense reflects an investment in infrastructure an average of fifteen (15) years ago, assuming a 30-year useful (depreciable) life. Simply funding an amount equal to annual depreciation expense will not be sufficient to replace the existing or depreciated facility. Therefore, consideration should be given to funding within rates some amount greater than annual depreciation expense for renewals and replacements. Whenever possible, the County should be funding capital projects from rates in an amount that is actually greater than annual depreciation expense.

As noted previously, the County has historically funded their capital improvement projects through G.O. Bonds which are paid through property taxes and not rate revenue. The County is interested in moving more towards an “enterprise” approach for the utilities in which the user rates are set at an appropriate level to recover both O&M and capital costs. This change is significant and will require a number of years to gradually transition the user rates to a cost-based level. Since there was a large level of rate adjustments needed an amount for capital improvement from rates was not included at this time. However the County should reconsider funding an amount in future years to meet repair and replacement capital needs.

3.2.5 Projection of Debt Service Payments

Debt service relates to the principal and interest obligations of the water utility when financing capital projects with a long-term debt issue. The County currently has no outstanding debt and it is projected that no new water-related debt to fund capital projects will be issued during this projected five-year time period. Historically, the County has used G.O. Bonds which are paid through property taxes to fund capital improvements.

3.2.6 Change in Working Capital

Under a typical cash basis revenue requirement, the total revenues are set equal to the total expenses (O&M, taxes, CIP from rates and debt service), and, technically, there is no change in the balance of the maintenance (operating) fund. The change in working capital component can be used to increase reserves for working capital purposes, or they can be drawn down to help mitigate the need for a rate adjustment. In this particular case, change in working capital has been assumed in all years and is an offset to cash reserve levels.

3.2.7 Summary of the Water Revenue Requirements

The above components and projections of the water revenue requirements came together to develop the overall water revenue requirement for the County. In developing the final revenue requirements, consideration was given to the financial planning criteria of the County. In particular, emphasis was placed on attempting to minimize rates, yet still providing adequate funds to support the County’s O&M activities throughout the projected time period. A summary of the County’s projected water revenue requirements is shown below in Table 3-2.

Table 3-2
Summary of the Water Revenue Requirement Analysis (\$000)

| | Budget 2018 | 2019 | 2020 | Projected 2021 | 2022 | 2023 |
|-----------------------------------|----------------|----------------|----------------|-------------------|------------------|------------------|
| Revenues - | | | | | | |
| Present Rate Revenues | 3,814 | 3,841 | 3,869 | 3,897 | 3,925 | 3,953 |
| Other Non-Rate Revenues | <u>211</u> | <u>215</u> | <u>218</u> | <u>222</u> | <u>226</u> | <u>230</u> |
| Total Revenues | \$4,025 | \$4,056 | \$4,087 | \$4,119 | \$4,151 | \$4,183 |
| Expenses - | | | | | | |
| O&M Expenses | \$4,500 | \$4,494 | \$4,503 | \$4,602 | \$4,704 | \$4,809 |
| Capital Outlays From Rates | 0 | 1,000 | 1,000 | 1,000 | 1,000 | 0 |
| Debt Service | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating Reserve (+/-) | <u>(475)</u> | <u>(1,131)</u> | <u>(773)</u> | <u>(471)</u> | <u>(138)</u> | <u>1,230</u> |
| Total Rev. Requirements | \$4,025 | \$4,363 | \$4,731 | \$5,131 | \$5,566 | \$6,039 |
| Total Bal./(Def.) of Funds | \$0 | (\$307) | (\$644) | (\$1,012) | (\$1,415) | (\$1,855) |
| Adj. as % of Rate Revenues | 0.0% | 8.0% | 16.6% | 26.0% | 36.0% | 46.9% |

[1] - The Table is in \$1,000 of dollars.

In reviewing Table 3-2, it should be noted that the annual deficiencies are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the latter years. The results of the water revenue requirements indicate a deficiency of funds in FY 2019 and continuing through to FY 2023. The projected deficiency of funds in FY 2019 is approximately \$307,000 or 8.0% of the County's water rates. By FY 2023, the deficiency is projected to be approximately \$1.8 million or 46.9% of the County's current water rate revenues. In large part, this deficiency is driven by the increased costs associated with wholesale water purchases, the funding of the Aamodt Project, along with the assumed escalation of O&M expenses. These increased expenses are offset in part, by the increasing revenues from assumed customer growth on the system.

Detailed exhibits of the water revenue requirement analysis prepared for the County are provided in Technical Appendices at the end of this report.

3.2.8 Water Rate Transition Plan

The purpose of the rate transition plan was to set the size and timing of the water rate adjustments to meet the County's needs, but also to help minimize impacts to customers. The proposed rate transition plan for the water utility is shown in Table 3-3.

**Table 3-3
Summary of the Water Rate Transition**

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Proposed Rate Adjustments | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% |

3.2.9 Summary and Recommendations of the Revenue Requirements

Based upon the water revenue requirement analysis developed herein, it is projected that the County’s water utility will operate at a deficit during the period of FY 2019 to FY 2023. The total level of deficiency is projected to be approximately \$1.8 million or 46.9% in FY 2023. In reviewing the results of the water revenue requirement analysis with the County, it was determined that a water rate transition plan should be developed for these revenue deficiencies. HDR recommends that the County adopt the proposed water rate transition plan for the period as shown in Table 3-3.

HDR recommends that the County adopt the proposed water rate transition plan as shown in Table 3-3.

This concludes the discussion and review of the water revenue requirement analysis. Given the findings and recommendations from this analysis, the focus now shifts to the water cost of service analysis.

3.3 Water Cost of Service Analysis

A water cost of service analysis is concerned with the equitable allocation of the total water revenue requirements to the various customer classes of service of the utility. There are two primary objectives in conducting a cost of service study. They are as follows:

- Allocate the water revenue requirements among the customer classes of service
- Derive average unit costs for subsequent water rate designs

The objectives of the water cost of service analysis are different than the objectives of a revenue requirement analysis. A revenue requirement analysis determines the utility's overall financial needs, while the cost of service study provides an equitable manner to collect those revenue requirements from the various different types of customers served. Provided below is a more detailed discussion of the overall approach used within the County's cost of service analysis, along with the findings, conclusions and recommendations from the analysis.

3.3.1 Customer Classes of Service

One of the first tasks that must be accomplished in the cost of service analysis is to determine the customer classes of service to be reviewed. The objective of this task is to group customers together into similar or homogeneous groups based upon facility requirements and/or flow characteristics. For this study, the following water customer classes of service were utilized:

- Residential
- Non-Residential
- Wholesale

The water cost of service conducted for the County utilized a three-step approach to review costs. These three steps are: functionalization, classification, and allocation. Provided below is a more detailed discussion of each of these analytical steps of the water cost of service study performed for the County.

3.3.2 Functionalization of Costs

The first analytical step in the water cost of service is called functionalization. Functionalization is the arrangement of expenses and asset (plant) data by major operating functions within the utility (e.g. wholesale purchases/supply, pumping, transmission, distribution, etc.). Within this study, the functionalization of the water cost data was largely accomplished through the County's system of accounts.

3.3.3 Classification of Costs

The second analytical step in the water cost of service study is the classification of costs. Classification determines why the expenses were incurred or what type of need is being met. The County's plant accounts and revenue requirements were reviewed and classified

Terminology of a Water Cost of Service Analysis

FUNCTIONALIZATION – The arrangement of the cost data by functional category (e.g. supply, treatment, etc.).

CLASSIFICATION – The assignment of functionalized costs to cost components (e.g. base, extra-capacity, customer, and fire protection related).

ALLOCATION – Allocating the classified costs to classes of service based upon each class's proportional contribution to that specific cost component.

COMMODITY COSTS – Costs that are classified as commodity related vary with the total flow of water (e.g. chemical use at a treatment plant).

CAPACITY COSTS – Costs classified as capacity related vary with peak usage. Facilities are often designed and sized around meeting peak demands.

FIRE PROTECTION COSTS - Costs that are related to fire protection systems (e.g. hydrants).

CUSTOMER COSTS – Costs classified as customer related vary with the number of customers on the system (e.g. metering costs).

DIRECT ASSIGNMENT – Costs that can be clearly identified as belonging to a specific customer or group of customers.

CUSTOMER CLASSES OF SERVICE – The grouping of customers into similar groups based upon usage characteristics and/or facility requirements.

according to the following cost classifiers as part of the water utility cost of service study.

- **Commodity Related Costs.** Commodity related costs are those costs that tend to vary with the total quantity of water consumed by a customer. The electric costs associated with pumping water are an example of a commodity-related cost, since these costs tend to vary based upon the total flow of water.
- **Capacity (Demand) Related Costs.** Capacity costs are those costs incurred to meet peak demand conditions. These costs are a function of meeting maximum demand requirements of the customers. Capacity may be defined by the peak period event, but is typically defined as peak day and/or peak hour requirements. Capacity related costs are important since they are related to the sizing of facilities needed to meet peak use requirements. For example, portions of distribution reservoirs and mains (pipes) must be adequately sized to meet peak use demands.
- **Customer Related Costs.** Customer costs are those costs that vary with the number of customers on the water system. They do not vary with system output or consumption levels. These costs are also sometimes referred to as “readiness to serve” or “availability” costs. Customer costs may also sometimes be further classified as either actual or weighted. Actual customer costs vary proportionally, from customer to customer, with the addition or deletion of a customer regardless of the size of customer. In contrast to this, a weighted customer cost reflects a disproportionate (i.e., higher or lower) cost, from customer to customer, with the addition or deletion of a customer.
- **Public Fire Protection Related Costs.** Public fire protection costs are those costs that are related to the public fire protection function. Usually, such costs are those related to public fire hydrants and the over-sizing of mains and reservoirs for fire protection purposes.
- **Revenue Related Costs.** Certain costs associated with the water utility may vary with the amount of revenue received by the County. An example of a revenue related cost is a tax based upon the gross revenues of the utility.
- **Direct Assignment.** Some costs associated with operating the system may be directly traced to a specific customer or class of service (e.g., bad debt expense). In this case, these costs are then “directly assigned” to that specific class of service. This assures that other classes of service will not be allocated costs for those “significant” facilities that they do not benefit from, or costs that they did not incur.

For each of the classified costs noted above, an allocation factor must be developed to allocate each specific type of cost in an equitable manner to the customer classes of service (e.g. residential, non-residential, etc.). A more detailed discussion of the specific cost of service methodology used for the County is provided below.

3.3.4 Functionalization and Classification of Water Plant in Service

The County’s historical plant asset records were reviewed to perform the functionalization of water plant in service. The classification process included reviewing each group of assets and determining which cost classifiers the assets were related to, or what function the asset (facility) provided. Typically the functions of the asset are allocated to the differing levels of service. A retail customer on a distribution system is allocated costs associated with that

delivery of water; from source of supply through the entire distribution system. In contrast to this, a wholesale customer reselling potable water would typically be allocated an equitable share of the source of supply, treatment, transmission and A&G costs, but no distribution costs, unless the wholesale customer utilized the utility's distribution system. Finally, a raw water customer is allocated costs similar to wholesale potable customers, but treatment costs are excluded.

The County's plant asset data, did not have enough information in a functional format to complete this analysis. The analysis instead, relied on the BDD expenses that are in a functional format, of fixed and variable expenses, based on shared and non-shared facilities. This is further shown as production and treatment functions and are in the resemblance to the way in which operating costs are incurred.

Table 3-5 shows a summary of the basic functionalization and classification of the County's major water utility functions.

| Table 3-5 Summary of the Classification of Water Utility Functions | | | | | | |
|---|------------------|-----------------|------------------------|--------------------------|------------------------|-----------------------|
| Plant Component | Commodity | Capacity | Actual Customer | Weighted Customer | Fire Protection | Direct Assign. |
| Production | 53% | 47% | – | – | – | – |
| Treatment | 100% | – | – | – | – | – |
| Meters/Services | – | – | – | 100% | – | – |
| Hydrants | – | – | – | – | – | – |

3.3.5 Functionalization and Classification of Water Operating Expenses

Operating expenses are generally functionalized and classified in a manner similar to the corresponding plant account. For example, maintenance of distribution mains is typically classified in the same manner (percentages) as the plant account for distribution mains. This approach to classification of operating expenses has been used for this analysis. In particular, wholesale water purchases (source of supply) were classified as 53% commodity-related and 47% capacity-related. This classification is related to the cost approach for the BDD expenses.

For the County's study, the FY 2019 water revenue requirements were functionalized and classified utilizing the previously discussed methodology. A more detailed review of the functionalization and classification of revenue requirements can be found in the Water Technical Appendix on Exhibit 13.

3.3.6 Allocation of the Revenue Requirements

Once the classes of service have been defined, and the classification process is complete, the various costs are then allocated to each of the classes of service based on equitable allocation factors. The County's classified water costs were allocated to the various classes of service using the following allocation factors.

- **Commodity-Related Allocation Factor.** Commodity-related costs vary with the flow of

water. Therefore, commodity-related costs were allocated to the various customer classes of service using the County's estimated FY 2019 water sales (consumption). The most recent historical period with sales by customer class of service was utilized for this study. Water sales were projected forward from this historical billed consumption. This information was provided by the County from their billing system.

- **Capacity-Related Allocation Factor.** Capacity-related costs vary with peak use or maximum demands on the system. Accordingly, the capacity allocation factor was developed based upon each classes assumed contribution to the system peak day demand. In developing this allocation factor, the County did not have County-specific measured information on individual customer class contributions to the County's peak day event. Given that, peaking factors, by class of service, were used to estimate the contribution of the each class of service to the peak day event. The peaking factors were initially calculated (estimated) by taking the ratio of the average month to peak month consumption. This ratio was assumed to be a reasonable surrogate of peaking factors for each customer class of service. The calculated total system peak demand was then compared to the actual (historical) system peak demand to assure reasonableness of the peaking factors for each class of service.
- **Customer Allocation Factors.** Customer costs vary with the number of customers on the system. Two basic types of customer allocation factors were identified - actual and weighted. The allocation factors for actual customers were based upon the projection of the number of customers developed within the revenue requirements. The weighted customer allocation factor is also broken down further into two factors that attempt to reflect the disproportionate costs associated with serving larger water users. The weighted customer allocation factor is for meters and services. This factor attempts to reflect that different level of investment associated with providing larger sized meters.
- **Public Fire Protection Allocation Factor.** The allocation of public fire protection related costs within the water cost of service analysis involved an analysis of each class of service and the fire flow requirements associated with each. The analysis took into account the gallon per minute flow requirements in the event of a fire, along with the required duration of the flow. The fire flow rates used within the allocation factor were based upon the guidelines in the County's 2017 Buildout Infrastructure Analysis Plan. For this study, it has been assumed that the minimum fire flow requirement for a residential customer is 1,500 gallons per minute (gpm) for a duration of 120 minutes. For non-residential, the minimum fire flow requirements are assumed to be 3,000 gpm for a duration of 180 minutes. These minimum fire flow requirements are then multiplied by the number of customers in each class of service, and the assumed duration, in minutes, of the required flow, to determine the class's prorated fire flow requirements.
- **Revenue Related Allocation Factor.** The revenue related allocation factor was developed from each customer class' projected annual rate revenues for FY 2019. This same amount of revenue was used in the revenue requirement analysis.

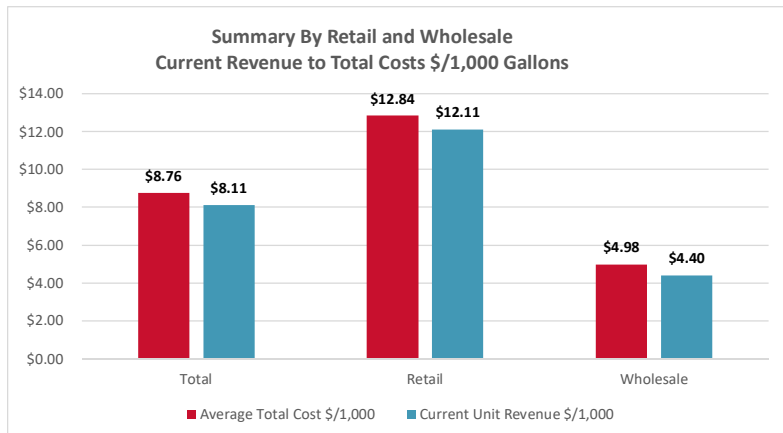
The water utility allocation factors noted above can be found in the Water Technical Appendices, Exhibits 8 – 12.

3.3.7 Summary of the Water Cost of Service Results

The summary of the allocated costs determine each class’s overall cost responsibility. The allocated costs are then compared to the present revenue received from each customer class to determine the cost difference between current rates and the cost of service for each class. This difference in costs is compared to present rate levels to determine the adjustment needed (increase or decrease) to have cost-based rates. A summary of the water cost of service analysis developed for each class of service is shown within Table 3-6.

| Table 3-6 Summary of the Water Utility Cost of Service Analysis (\$000’s) | | | | |
|--|-----------------------|-----------------|---------------|--------------|
| Classes of Service | Present Rate Revenues | Allocated Costs | \$ Difference | % Difference |
| Retail | \$2,760 | \$2,926 | (\$166) | 6.0% |
| Wholesale | <u>1,081</u> | <u>1,222</u> | <u>(141)</u> | <u>13.1%</u> |
| Total | \$3,841 | \$4,148 | (\$307) | 8.0% |

The allocation of costs attempted to assure that the facilities and costs allocated to each customer class reflected their respective benefit. The cost of service results indicate that some cost differences do exist between the major customer classes of service. Generally, plus or minus 5% of the overall average is considered to be within the range of reasonableness and indicate that a class of service is paying their “cost of service.”



3.3.8 Summary Conclusions and Recommendations of the Cost of Service

The cost of service did note some cost differences associated with serving the County’s different customer groups. The County has proposed rate adjustments through the five year period of FY 2019 to FY 2023. Given that, it was determined that no interclass cost of service adjustments should be made at this time. As a result of that decision, each class of service will be adjusted equally in the design of the proposed rates. While concluding that all customer classes of service should be adjusted equally at this time, this should not be construed as discounting the value of using cost of service to set rates.

While concluding that all customer classes of service should be adjusted equally at this time, this should not be construed as discounting the value of using cost of service to set rates.

It must be kept in mind that a cost of service analysis reflects costs and usage characteristics of a specific point in time, and as time goes on, customer’s consumption patterns and usage

requirements change. Only over time, and through continual analysis, can one fully understand the true cost of providing service. Given the results of the water cost of service analysis, the focus will now shift to the development of the proposed water rate designs.

3.4 Water Rate Designs

The final step of the comprehensive water rate study process is the design of water rates to collect the desired level of revenue, based upon the findings and recommendations of the water revenue requirement and cost of service analysis. In reviewing water rate designs, consideration is given to the level of the rates and the structure of the rates. This subsection of the report will review the current and proposed water rate designs for the County.

3.4.1 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered when setting utility rates. Some of these rate design criteria are listed below:

- ✓ Rates which are easy to understand, from the customer's perspective
- ✓ Rates which are easy for the utility to bill and administer
- ✓ Consideration of the customer's ability to pay
- ✓ Continuity, over time, of the rate making philosophy
- ✓ Policy considerations (encourage conservation, economic development, etc.)
- ✓ Provide revenue stability from month to month and year to year
- ✓ Promote efficient allocation and use of the resource
- ✓ Equitable and non-discriminating (cost based)

Many contemporary rate economists and regulatory agencies feel that the last consideration, cost-based rates, should be of paramount importance and provide the primary guidance to utilities on rate structure and policy.

It is important that the County provide its customers with a proper price signal as to what their consumption or usage is costing. This goal may be approached through a combination of rate *level* and rate *structure*. Level refers to the amount of revenue to be collected from a rate design, and structure refers to the way in which the revenue is collected (e.g., fixed charges, variable charges, minimum bills, etc.). When developing the County's proposed water rate designs, all of the above listed criteria were taken into consideration. However, it should be noted that it is difficult, if not impossible, to design a water rate that meets all of the goals and objectives listed above. For example, it may be difficult to design a low-income rate (i.e., a discounted or subsidized rate) that takes into consideration the customer's ability to pay, and one which is cost-based. In designing rates, there are always trade-offs between the various rate design goals and objectives.

3.4.2 Review of the Overall Water Rate Adjustments

As indicated in the revenue requirement analysis and the cost of service analysis, the priority for the water utility was to adjust and transition the overall level of the water rates to meet the County's financial and rate policies. Therefore, the results of revenue requirement analysis were the primary basis for establishing the proposed rate adjustments for the water utility. Table 3-7 provides a summary of the proposed water rate adjustments for the five year period.

**Table 3-7
Summary of the Water Rate Transition**

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Proposed Rate Adjustments | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% |

In addition, since no cost of service adjustments were recommended at this time, the proposed rate adjustments will be applied equally among each of the customer classes of service (rate schedules).

3.4.3 Present and Proposed Residential Water Rates

The current residential and non-residential rate structure is composed of a base rate (meter) charge and a four tiered consumption charge four (4) block. The proposed residential and non-residential water rates maintain the current rate structure with a change in tiers from 5,000 to 4,000 increment blocks. Also a fifth tier is added. Presented below in Table 3-8 is a summary of the present and proposed residential water rate schedules.

**Table 3-8
Summary of the Present and Proposed Residential Water Rates**

| Rate Components | Present Rate [1] | Proposed [2] | | | | |
|---------------------------------------|------------------|--------------|---------|---------|---------|---------|
| | | 2019 | 2020 | 2021 | 2022 | 2023 |
| Customer Service Fee (Monthly) | | | | | | |
| 5/8" | \$14.50 | \$22.83 | \$22.83 | \$22.83 | \$22.83 | \$22.83 |
| 3/4" | 15.68 | 24.68 | 24.68 | 24.68 | 24.68 | 24.68 |
| 1" | 17.99 | 28.32 | 28.32 | 28.32 | 28.32 | 28.32 |
| 1-1/2" | 38.99 | 61.38 | 61.38 | 61.38 | 61.38 | 61.38 |
| 2" | 40.42 | 63.63 | 63.63 | 63.63 | 63.63 | 63.63 |
| 3" | 51.06 | 96.15 | 96.15 | 96.15 | 96.15 | 96.15 |
| Usage Charge per 1,000 gals | | | | | | |
| First 4,000 | \$6.12 | \$6.43 | \$6.75 | \$7.08 | \$7.44 | \$7.81 |
| Next 4,000 | 8.43 | 8.85 | 9.29 | 9.76 | 10.25 | 10.76 |
| Next 4,000 | 13.02 | 13.67 | 14.35 | 15.07 | 15.83 | 16.62 |
| Next 4,000 | 17.62 | 18.50 | 19.43 | 20.40 | 21.42 | 22.49 |
| Above 16,000 | ----- | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |

[1] – Present rate is four, 5,000 tier blocks.

[2] – Proposed rate is five, 4,000 tier blocks.

3.4.4 Present and Proposed Non-Residential Water Rates

Presented below in Table 3-9 is a summary of the present and proposed non-residential water rate schedules.

| Table 3-9 Summary of the Present and Proposed Non-Residential Water Rates | | | | | | |
|--|-------------------------|-------------|-------------|------------------------------|-------------|-------------|
| Rate Components | Present Rate [1] | 2019 | 2020 | Proposed [2] 2021 | 2022 | 2023 |
| Customer Service Fee (Monthly) | | | | | | |
| 5/8" | \$30.68 | \$48.30 | \$48.30 | \$48.30 | \$48.30 | \$48.30 |
| 3/4" | 43.59 | 68.62 | 68.62 | 68.62 | 68.62 | 68.62 |
| 1" | 69.42 | 109.28 | 109.28 | 109.28 | 109.28 | 109.28 |
| 1-1/2" | 133.99 | 210.93 | 210.93 | 210.93 | 210.93 | 210.93 |
| 2" | 211.46 | 332.89 | 332.89 | 332.89 | 332.89 | 332.89 |
| 3" | 407.77 | 641.93 | 641.93 | 641.93 | 641.93 | 641.93 |
| 4" | 484.45 | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Usage Charge per 1,000 gals | | | | | | |
| First 4,000 | \$5.91 | \$6.21 | \$6.52 | \$6.84 | \$7.18 | \$7.54 |
| Next 4,000 | 8.16 | 8.57 | 9.00 | 9.45 | 9.92 | 10.41 |
| Next 4,000 | 12.65 | 13.28 | 13.95 | 14.64 | 15.38 | 16.14 |
| Next 4,000 | 17.07 | 17.92 | 18.82 | 19.76 | 20.75 | 21.79 |
| Above 16,000 | ----- | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |

[1] – Present rate is four, 5,000 tier blocks.

[2] – Proposed rate is five, 4,000 tier blocks.

3.4.5 Present and Proposed Wholesale Water Rates

The wholesale class of service includes the Domestic Association, which includes the Agua Fria Community and the State Penitentiary, wholesale potable which includes the Santa Fe Community College and Las Campanas Co-op, and wholesale non-potable or raw which is the Club at Las Campanas. The wholesale rates pay a meter charge based on the Non-Residential meter charge along with a contract rate that is specified in each contract to be equal to cost of service.

For FY 2019, the wholesale rate is set at the Non-Residential meter charge rate. The usage charge for FY 2019 is set equal to the average cost of both the Buckman Direct Diversion (BDD) and City wholesale cost that occurs when the BDD is down. Presented below in Table 3-10 is a summary of the present and proposed wholesale water rate schedules.

**Table 3-10
Summary of the Present and Proposed Wholesale Water Rates**

| Rate Components | Present Rate [1] | 2019 | 2020 | Proposed 2021 | 2022 | 2023 |
|--|-------------------------|-------------|-------------|----------------------|-------------|-------------|
| Customer Service Fee (Monthly) | | | | | | |
| 3" | \$407.77 | \$641.93 | \$641.93 | \$641.93 | \$641.93 | \$641.93 |
| 4" | 484.45 | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Usage Charge per 1,000 gals¹ | | | | | | |
| Domestic Assoc. | \$3.22 | \$6.54 | \$6.74 | \$6.93 | \$7.14 | \$7.14 |
| Potable | 5.47 | 6.54 | 6.74 | 6.93 | 7.14 | 7.14 |
| Non-Potable | 4.01 | 4.32 | 4.45 | 4.58 | 4.72 | 4.72 |

3.5 Summary of the Water Rate Study

This section of the report has discussed the development and results of the comprehensive water rate study conducted for the County. The results of the water rate study indicated that water rates are deficient and need annual rate adjustments. The implementation of the proposed rate adjustments are intended and designed to generate a sufficient and appropriate level of revenue needed to meet the County’s increased water operating needs, along with the County’s financial and rate setting policies.

The water rates, as proposed herein, are cost-based and were developed using “generally accepted” rate making methodologies and principles. The proposed rates should enable the County’s water utility to operate in a financially sound and prudent manner. The next section of the report will discuss the development and results of the sewer rate study.

4.0 Development of the Sewer Rate Study

4.1 Introduction

This section of the report will present the comprehensive sewer rate study undertaken for the County. As with the water utility, the objective of a sewer rate study is to determine the adequacy and sufficiency of current sewer rate revenues to cover operating and capital needs along with evaluating the equity of current rates.

Similar to the comprehensive water rate study, the comprehensive sewer rate study is comprised of three interrelated analyses. These are a sewer revenue requirement analysis, a sewer cost of service study and the design of proposed sewer rates. This section of the report will review each of these analytical steps contained within the comprehensive sewer rate study and discuss the key assumptions, findings, conclusions and recommendations of each. At the end of this section of the report, the proposed and recommended sewer rates for FY 2019 through FY 2023 are provided.

As with the water utility, the objective of a sewer rate study is to determine the adequacy and sufficiency of current sewer rate revenues to cover operating and capital needs along with evaluating the equity of current rates.

4.2 Development of the Sewer Revenue Requirement

Consistent with the basic philosophy used to analyze the County's water revenue requirements, the County's sewer revenue requirement analysis assumes that the sewer utility must also financially "stand on its own" and not be subsidized by the water utility. It should be noted, that not all of the County's water customers are sewer customers. Therefore, the sewer revenue requirements are developed on a "stand-alone" basis. In developing the revenue requirements for this utility, all the costs that are necessary to run the sewer utility in a prudent, sustainable and financially stable manner were included in the analysis.

4.2.1 Determination of Time Period and Method of Accumulating Costs

The revenue requirement for the sewer utility was developed using the same general framework and similar assumptions as the water utility. The sewer revenue requirements reviewed the time period of FY 2019 through FY 2023 projected. This time period was reviewed in order to maintain consistency between the water and sewer rate study.

The sewer system billing records, sewer accounting records, and the County’s sewer capital improvement plan were the major inputs used to develop the sewer utility revenue requirements. A more detailed discussion of the key assumptions contained within the sewer revenue requirement is provided below.

4.2.2 Sewer Rate and Other Miscellaneous Revenues

The projection of sewer rate revenues was developed based on FY 2018 budget document and projected forward based on assumed customer growth. In general, this process involved developing projected billing units for each customer class of service (i.e., residential and non-residential) and then applying (multiplying) those billing units against rates in effect for that year. At the present time, the County receives approximately \$486,000 in revenues. Over time, the County’s revenues are projected to increase to \$504,000 by FY 2023.

In addition to rate revenues, the sewer utility also has a number of miscellaneous revenues. These miscellaneous revenues are in the form of miscellaneous fees and interest on investments. The miscellaneous revenues are projected to increase over time, beginning with approximately \$39,000 in FY 2018 and increasing to approximately \$40,000 by FY 2023.

When taken together, the total sewer revenues projected to be received by the County range from \$525,000 in FY 2018 to \$545,000 in projected FY 2023. The increase or change in revenue is primarily related to the assumed (projected) customer growth on the system.

4.2.3 Projection of Sewer Operation and Maintenance Expenses

The County’s system of accounts was used to develop current and future projections for O&M expenses. Escalation factors, similar to those developed for the water utility analysis, were developed for the various types of expenses that the sewer utility incurs: labor, benefits, engineering, materials & supplies, equipment, utilities and miscellaneous expenses. The escalation factors ranged from 1.0% to 8% per year depending on the specific expense being projected. The 8% escalation factor was used for health related benefits which for a number of years has escalated at a rate significantly higher than general inflationary levels. The County’s FY 2018 budget levels were used as a base to project future year costs for FY 2019 to FY 2023. To project the O&M expenses, the various costs were reviewed and escalated by the most appropriate and applicable escalation method. The County’s total sewer system O&M costs are approximately \$672,000 in year FY 2018. Over time, the O&M costs are projected to increase to \$687,000 by FY 2023.

4.2.4 Projection of Sewer Capital Improvement Projects and Funding

As noted previously, the County has historically funded their capital improvement projects through G.O. Bonds which are paid through property taxes and not rate revenue. The County is interested in moving more towards an “enterprise” approach for the utilities in which the user rates are set at an appropriate level to recover both O&M and capital costs. This change is significant and will require a number of years to gradually transition the user rates to a cost-based level. Since there was a large level of rate adjustments needed an amount for capital improvement from rates was not included at this time. However the County should reconsider funding an amount in future years to meet repair and replacement capital needs.

4.2.6 Projection of Debt Service Payments

As was noted above for water, and the same for sewer, no new debt issues were assumed during the test period to pay for capital improvement projects. Historically, the County has used G.O. Bonds which are paid through property taxes to fund capital improvements.

4.2.7 Change in Working Capital

The change in working capital can be used to increase reserves for working capital purposes, or they can be drawn down to help mitigate the need for a rate adjustment. In this particular case, there was minimal change in working capital from FY 2018 to FY 2023. With this transfer, the revenues and expenses in balance with each other (i.e., \$0 balance/deficiency of funds) each year.

4.2.8 Summary of the Sewer Revenue Requirements

Given the above assumptions and the projections of sewer revenues and expenses, the sewer revenue requirement analysis was developed. A summary of the sewer revenue requirements is shown below in Table 4-2.

| Table 4-2 | | | | | | |
|--|---------------|-------------|--------------|------------------|--------------|--------------|
| Summary of the Sewer Revenue Requirement Analysis (\$000) | | | | | | |
| | Budget | | | Projected | | |
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Revenues - | | | | | | |
| Present Rate Revenues | \$486 | \$490 | \$494 | \$497 | \$501 | \$505 |
| Other Non-Rate Revenues | <u>39</u> | <u>39</u> | <u>40</u> | <u>40</u> | <u>41</u> | <u>41</u> |
| Total Revenues | \$525 | \$529 | \$533 | \$537 | \$542 | \$546 |
| Expenses - | | | | | | |
| O&M Expenses | \$673 | \$578 | \$621 | \$643 | \$664 | \$687 |
| Capital Outlays From Rates | 0 | 0 | 0 | 0 | 0 | 0 |
| Debt Service | 0 | 0 | 0 | 0 | 0 | 0 |
| Operating Reserve (+/-) | <u>(148)</u> | <u>(29)</u> | <u>(46)</u> | <u>(40)</u> | <u>(33)</u> | <u>(24)</u> |
| Total Rev. Requirements | \$525 | \$549 | \$575 | \$603 | \$632 | \$663 |
| Total Bal./(Def.) of Funds | \$0 | (\$20) | (\$42) | (\$65) | (\$90) | (\$117) |
| Adj. as % of Rate Revenues | 0.0% | 5.5% | 11.3% | 17.4% | 23.9% | 30.7% |

[1] - The Table is in \$1,000 of dollars.

The results of the sewer revenue requirements indicate there are deficiencies in revenues during the FY 2019 – FY 2023 time period. In FY 2019, the sewer utility is slightly deficient by \$20,000. These deficiencies increase to approximately \$117,000 in FY 2023. Detailed exhibits of the sewer revenue requirement analysis can be found in Sewer Technical Appendices.

4.2.9 Sewer Rate Transition Plan

The results of the sewer revenue requirements indicate the need for a rate adjustment to cover the period of FY 2019 through FY 2023. HDR recommends the County increase the overall sewer utility revenue levels by 5.5% annually through FY 2023. Finally, rate funding for sewer capital improvement projects (i.e., renewal and replacement capital improvement projects) was not included in this rate transition plan. As a result, the County will need to continue to fund sewer infrastructure from the County’s General Fund or from G.O. Bonds. Provided below in Table 4-4 is a summary of the proposed rate transition plan for the sewer rates.

| Table 4-4 Summary of the Sewer Rate Transition Plan | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| | 2019 | 2020 | 2021 | 2022 | 2023 |
| Proposed Rate Adjustments | 5.5% | 5.5% | 5.5% | 5.5% | 5.5% |

4.2.10 Summary and Recommendations of the Revenue Requirements

Based upon the sewer revenue requirement analysis developed above, it is projected that the County’s sewer utility will have deficiencies in FY 2019 through FY 2023. The total level of deficiency is projected to be approximately \$117,000 in 2023. In reviewing the results of the sewer revenue requirement analysis with the County, it was determined that a sewer rate transition plan should be developed for these revenue deficiencies. HDR recommends that the County adopt the proposed sewer rate transition plan (i.e., rate adjustments) for FY 2019 through FY 2023 as shown in Table 4-4.

HDR recommends that the County adopt the proposed sewer rate transition plan for FY 2019 through FY 2023 as shown in Table 4-4.

The above concludes our discussion of the sewer revenue requirements. The revenue requirements, as developed for the County, are intended to allow the utility to operate on a financially sound and prudent basis. The next step in the comprehensive sewer rate study is to develop a sewer cost of service analysis, using the results of the revenue requirement analysis.

4.3 Sewer Cost of Service Analysis

Similar to the water cost of service analysis, a sewer cost of service analysis is concerned with the equitable allocation of total sewer revenue requirements to the various sewer customer classes of service.

In order to determine the cost to serve each customer class of service on the sewer system, an analysis is conducted using an analytical framework very similar to that used for the water cost of service study. That is, the cost of service functionalizes, classifies, and allocates the sewer revenue requirements to each of the classes of service in an equitable manner. Provided below is a detailed discussion of the sewer cost of service study.

4.3.1 Customer Classes of Service

One of the first tasks of a cost of service analysis is determine the classes of service for the analysis. In determining classes of service, the objective is to group customers together into similar or homogeneous groups based upon wastewater flow and strength characteristics and/or sewer facility requirements. Two (2) different classes of service were reviewed for the County's sewer cost of service analysis. These customer classes of service were as follows:

- Residential
- Non-Residential

The County asked that the non-residential be further divided into non-residential penitentiary. The penitentiary rate is a contract rate that cannot be changed. There was not strength information to further analyze this customer.

In order to determine the cost to serve each customer class on a system, three basic analytical tasks are completed: functionalization, classification, and allocation of the sewer costs. Each of these steps in the cost of service analysis is discussed in detail below.

4.3.2 Functionalization of Costs

The first analytical step of the sewer cost of service study is called functionalization. Functionalization is the arrangement of sewer expenses and asset (plant) data by major operating functions. This is generally accomplished through the utility's system of accounts. In this study, the County's system of accounts was used to functionalize sewer operating expenses.

4.3.3 Classification of Costs

The second analytical task performed is the classification of the functionalized expenses to cost components. This task reviews each cost and attempts to determine why the sewer cost was incurred and what type of need was being met (e.g. volume, strength, customer etc.). The cost classifiers used for the sewer utility cost of service study are as follows:

- **Volume Related Costs.** Volume-related costs are those that tend to vary according to the quantity of wastewater collected and treated. A majority of collection system costs and treatment costs are included in this component. An example of a volume related cost is electricity for pumping of wastewater.

- **Strength Related Costs.** Strength related costs are those costs associated with the additional handling and treatment of high “strength” wastewater. Strength of wastewater is typically measured in biochemical oxygen demand (BOD) and total suspended solids (SS). Increased levels of BOD or SS generally equate to increased treatment costs. Pre-treatment is generally required if the discharge is known to regularly exceed the typical (i.e. domestic level) waste strength. The County did not have any available strength information to complete this part of the analysis.
- **Customer Related Costs.** Customer-related costs vary with the addition or deletion of a customer. Customer related costs typically include the costs of billing, collecting, and accounting. Customer-related costs may also be further categorized as actual or weighted. The differences in these costs are similar to those noted for the water utility.
- **Revenue Related.** Some costs associated with the sewer utility may vary with the amount of revenue received by the utility. An example of a revenue related cost would be a state utility tax which is based on gross utility revenue.
- **Direct Assignment.** Certain costs associated with operating the utility may be directly traced to a specific sewer customer or class of service. These costs are then “directly assigned” to that specific class of service.

A more detailed discussion of the specific cost of service methodology used for the sewer utility is provided below.

4.3.4 Functionalization and Classification of Sewer Operating Expenses

The County’s sewer revenue requirements for projected FY 2019 were used in the sewer cost of service analysis. Generally, expenses are functionalized based on the County’s system of accounts and classified in a manner similar to the corresponding plant account. For example, collection related expenses are classified in the same manner (percentages) as collection plant, etc. This approach to the classification of operating expenses has been used for this analysis. A more detailed review of the classification of

Wastewater Cost Classifiers

VOLUME COSTS – Costs that are classified as volume related vary with the total flow of wastewater on the system (e.g. chemical use at the treatment plant).

STRENGTH COSTS – Costs classified as strength related refer to the wastewater treatment function. Typically, strength-related costs are further defined as biochemical oxygen demand (BOD) and suspended solids (SS). Different types of customers may have high wastewater strength characteristics, and high strength wastewater costs more to treat.

CUSTOMER COSTS – Costs classified as customer related vary with the number of customers on the system, e.g. billing costs. Customer costs may be actual or weighted. Actual customer costs do not vary based upon the size or wastewater contributions of the customer. A weighted customer cost is disproportionate, and varies due to the size or usage characteristics of the customer.

DIRECT ASSIGNMENT – Costs that can be clearly identified as belonging to a specific customer or group of customers.

revenue requirements can be found in the Sewer Technical Appendices.

4.3.5 Allocation of the Revenue Requirements

The final analytical task performed with the data in the sewer cost of service analysis is the allocation of the classified costs. For each of the classified costs noted above, an allocation factor is developed that equitably allocates each specific type of cost in a “fair and equitable” manner to the customer classes of service (e.g. residential, non-residential, etc.). Once the classification process is complete the various classified sewer costs are then allocated to each of the classes of service using the following allocation factors:

- **Volume Allocation Factors.** Volume-related costs are generally allocated on the basis of contribution to wastewater flows. In order to develop this allocation factor, some knowledge of the contribution to flows must be determined. Given that sewer flows are not metered for residential and non-residential customers, water consumption is generally utilized as the surrogate for wastewater contributions. In the case of the County, the sewer customers are billed on an average winter water usage. The use of winter water use is intended to eliminate outdoor irrigation from the allocation factor.
- **Customer-Related Costs.** Customer-related costs within the cost of service study are allocated to the various customer classes of service based upon their respective customer counts. The number of customers, by customer class of service, was developed within the revenue requirement study. Two types of customer allocation factors were developed, actual and weighted. Actual customer costs do not vary by the volume or strength characteristics of the class of service and are based on the actual number of customers for each class of service. A weighting factor was used to develop the weighted customer allocation factor. The weighted customer allocation factor attempts to reflect the disproportionate costs associated with serving larger customers. These customers are assigned a higher per customer cost because they require additional administrative costs and possible monitoring.
- **Revenue-Related Costs.** Revenue-related costs were allocated based upon the revenues at present rates for each class of service. Revenue-related costs are those costs that vary with the amount of revenue received. Revenues for projected FY 2019 were developed within the revenue requirement study previously discussed.

The allocation factors used within the sewer rate study, and discussed above, can be seen in the Sewer Technical Appendices.

4.3.6 Summary of the Sewer Cost of Service Results

The County’s sewer cost of service is not as complex as the water. The level of service is essentially retail and related to residential and non-residential customers. The only specific direction the County requested is to review the State Penitentiary within the cost of service.

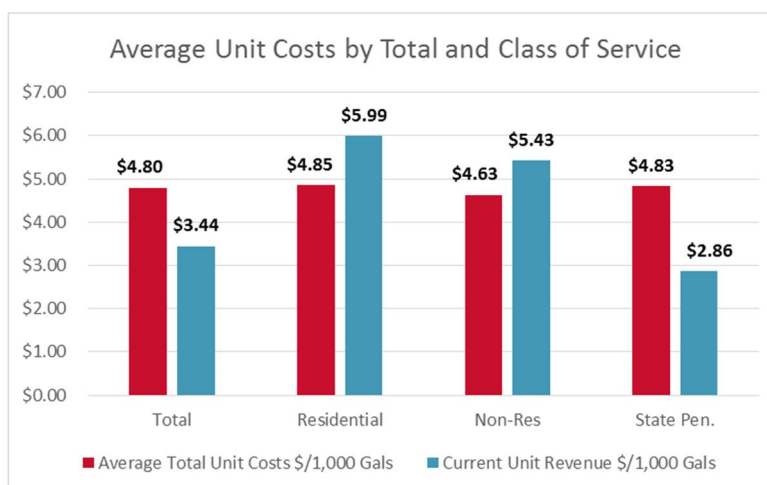
The State Penitentiary currently has a contract with the County which calls for a flat rate of \$10,304 a month which cannot be changed. The resulting cost of service showed the State Penitentiary revenues were not meeting their cost of service. Similar to the discussion around the water cost of service analysis, a sewer cost of service is a snap shot in time and is based on estimated wastewater volumes and customer data which can change over time or be variable. HDR believes the results shown herein are reasonable given the limitations of the County’s data and information.

Provided below in Table 4-5 is a summary of the cost of service analysis of the FY 2019 revenue requirement between retail (residential, non-residential, and non-residential-State Penitentiary).

| Table 4-5 Summary of the Sewer Utility Cost of Service Analysis (\$000's) | | | | |
|--|-----------------------|-----------------|---------------|--------------|
| Classes of Service | Present Rate Revenues | Allocated Costs | \$ Difference | % Difference |
| Residential | \$254 | \$206 | (\$48) | -19.1% |
| Non-Residential | 112 | 96 | (16) | - 14.7% |
| State Penitentiary | <u>123</u> | <u>208</u> | <u>85</u> | <u>68.8%</u> |
| Total | \$489 | \$510 | \$20 | 5.5% |

As noted above, the State Penitentiary contract does not allow for a change in the current flat rate. When the County can adjust the State Penitentiary rates, they should consider doing so.

Provided below is a graphical comparison of the current average revenue derived from each customer group (blue bar) and the allocated average unit cost (red bar) from the cost of service analysis. In this case, Table 4-5 illustrates that there are no significant cost differences between serving a residential or non-residential customer, including the State Penitentiary. The average



system cost for sewer service is approximately \$4.80/1,000 gallons and each customer class of service does not vary significantly from that average cost.

4.4 Sewer Rate Designs

As indicated in the revenue requirement analysis and the cost of service analysis, the priority for the sewer utility was to adjust and transition the overall level of the sewer rates to meet the County’s financial and rate policies. Therefore, the results of revenue requirement analysis were the primary basis for establishing the proposed rate adjustments for the sewer utility.

Since no cost of service adjustments were recommended at this time, the proposed rate adjustments for each year of 5.5% will be applied equally among each of the customer classes of service (rate schedules).

4.4.1 Present and Proposed Sewer Rates

Presented below in Table 4-6, is the County’s present and proposed FY 2019 and FY 2023 sewer rates.

| Table 4-6 Summary of the Present and Proposed Sewer Rates | | | | | | |
|--|---------------------|-------------|-------------|----------------------|-------------|-------------|
| Rate Components | Present Rate | 2019 | 2020 | Proposed 2021 | 2022 | 2023 |
| Customer Service Fee (Monthly) | \$8.18 | \$8.59 | \$9.02 | \$9.47 | \$9.94 | \$10.44 |
| Usage Charge > than 1,000 gallons | \$4.89 | \$5.10 | \$5.31 | \$5.54 | \$5.77 | \$6.01 |

As can be seen, no changes have been made to the structure of the rates. The proposed rates have maintained the fixed monthly charge and a usage charge for over 1,000 gallons.

This concludes the discussion of the sewer rate design process.

4.5 Summary of Sewer Rate Study

The County’s sewer utility appears to have fair and equitable rates. Over time, these rates will need to be adjusted to collect the appropriate level of revenue and remain cost based. The proposed sewer rates developed herein are designed to achieve that overarching goal of the County.



Technical Appendix A – Water Rate Analyses

Santa Fe County
Water Rate Study
Exhibit 1
Revenue Requirement Analysis Summary

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Notes |
|--|--------------------|--------------------|----------------------|--------------------|--------------------|--------------------|--------------------|----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Revenue | | | | | | | | |
| Retail Rate Revenues | \$2,807,267 | \$2,733,019 | \$2,760,350 | \$2,787,953 | \$2,815,833 | \$2,843,991 | \$2,872,431 | See Exhibit 2 & 3 for detail |
| Wholesale Rate Revenues | 481,377 | 1,080,782 | 1,080,782 | 1,080,782 | 1,080,782 | 1,080,782 | 1,080,782 | See Exhibit 2 & 3 for detail |
| Total Rate Revenues | \$3,288,644 | \$3,813,802 | \$3,841,132 | \$3,868,736 | \$3,896,615 | \$3,924,773 | \$3,953,213 | |
| Non-Operating Revenues | 638,772 | 210,861 | 214,592 | 218,411 | 222,320 | 226,322 | 230,419 | See Exhibit 2 & 3 for detail |
| Total Revenues | \$3,927,416 | \$4,024,663 | \$4,055,724 | \$4,087,146 | \$4,118,935 | \$4,151,095 | \$4,183,632 | |
| Expenses | | | | | | | | |
| Buckman Direct Diversion Project (BDD) | \$1,354,451 | \$2,091,792 | \$2,076,153 | \$2,096,914 | \$2,117,884 | \$2,139,062 | \$2,160,453 | See Exhibit 7A and 7B for detail |
| Salary & Wages | 694,455 | 857,623 | 891,928 | 927,605 | 964,709 | 1,003,298 | 1,043,430 | See Exhibit 2 & 3 for detail |
| Employee Benefits | 289,879 | 403,905 | 424,625 | 446,654 | 470,087 | 495,027 | 521,581 | See Exhibit 2 & 3 for detail |
| Travel | 1,426 | 8,050 | 8,171 | 8,293 | 8,418 | 8,544 | 8,672 | See Exhibit 2 & 3 for detail |
| Vehicle Expenses | 29,320 | 35,230 | 35,758 | 36,295 | 36,839 | 37,392 | 37,953 | See Exhibit 2 & 3 for detail |
| Maintenance | 131,737 | 144,800 | 146,972 | 149,177 | 151,414 | 153,685 | 155,991 | See Exhibit 2 & 3 for detail |
| Services | 37,495 | 268,207 | 241,156 | 167,130 | 173,130 | 179,356 | 185,817 | See Exhibit 2 & 3 for detail |
| Supplies | 18,070 | 40,516 | 41,529 | 42,567 | 43,631 | 44,722 | 45,840 | See Exhibit 2 & 3 for detail |
| Other Operating Costs | 346,095 | 536,657 | 508,542 | 514,068 | 519,663 | 525,328 | 531,063 | See Exhibit 2 & 3 for detail |
| Insurance & Deductibles | 26,181 | 64,023 | 70,044 | 65,791 | 67,014 | 68,275 | 69,573 | See Exhibit 2 & 3 for detail |
| General Capital Purchases | 44,900 | 49,000 | 49,000 | 49,000 | 49,000 | 49,000 | 49,000 | See Exhibit 2 & 3 for detail |
| Total O&M Expenses | \$2,974,009 | \$4,499,803 | \$4,493,877 | \$4,503,494 | \$4,601,790 | \$4,703,688 | \$4,809,371 | |
| Net Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | See Exhibit 2 & 3 for detail |
| Capital Improvements from Rates (See Exhibit 4) | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$0 | See Exhibit 2 & 3 for detail |
| To/(From) Operating Reserve | \$953,407 | (\$475,140) | (\$1,130,863) | (\$772,590) | (\$470,857) | (\$137,755) | \$1,229,615 | See Exhibit 2 & 3 for detail |
| Total Revenue Requirement | \$3,927,416 | \$4,024,663 | \$4,363,014 | \$4,730,904 | \$5,130,932 | \$5,565,932 | \$6,038,986 | |
| Balance/(Deficiency) of Funds | \$0 | (\$0) | (\$307,291) | (\$643,758) | (\$1,011,998) | (\$1,414,837) | (\$1,855,354) | |
| Bal/(Def.) as a % of Rate Rev. | 0.0% | 0.0% | 8.0% | 16.6% | 26.0% | 36.0% | 46.9% | |
| Proposed Rate Adjustment | 0.0% | 0.0% | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% | |
| Add'l Revenue from Adj. | \$0 | \$0 | \$307,291 | \$643,758 | \$1,011,998 | \$1,414,837 | \$1,855,354 | |
| Total Bal/(Def.) of Funds | \$0 | (\$0) | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Additional Rate Increase Needed | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Avg Monthly Residential Bill at 5,000 Gallons | \$45.10 | | | | | | | |
| After Proposed Rate Adjustment | \$45.10 | \$45.10 | \$48.71 | \$52.61 | \$56.82 | \$61.37 | \$66.28 | See Exhibit 3 for detail |
| Monthly \$ Change | \$0.00 | \$0.00 | \$3.61 | \$3.90 | \$4.21 | \$4.55 | \$4.91 | See Exhibit 3 for detail |
| Cumulative Change | \$0.00 | \$0.00 | \$3.61 | \$7.51 | \$11.72 | \$16.27 | \$21.18 | See Exhibit 3 for detail |
| Operating Reserve | \$6,133,192 | \$5,658,052 | \$4,527,189 | \$3,754,599 | \$3,283,742 | \$3,145,986 | \$4,375,601 | See Exhibit 3 for detail |
| Target Minimum | \$1,487,000 | \$2,249,900 | \$2,246,900 | \$2,251,700 | \$2,300,900 | \$2,351,800 | \$2,404,700 | See Exhibit 3 for detail |
| Debt Service Coverage Ratio (DSC) | | | | | | | | |
| Before Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| After Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |

Santa Fe County
Water Rate Study
Exhibit 2
Escalation Factors

| | Actual | Budget | Projected | | | | | Notes |
|---------------------------------|---------|---------|-----------|---------|---------|---------|---------|-------|
| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Revenues | | | | | | | | |
| Residential Growth | | 0.6% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [1] |
| Nonresidential Growth | | 0.6% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [1] |
| Bulk Water | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | |
| Domestic Association | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | [1] |
| Wholesale 1 - Potable Water | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | [1] |
| Wholesale 2 - Non-Potable Water | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | [1] |
| Flat | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Other Revenues | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | |
| Expenses | | | | | | | | |
| Labor | | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | [2] |
| Retirement | | | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% | [2] |
| Benefits - Medical | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Benefits - Other | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Materials & Supplies | | | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | [2] |
| Equipment | | | 3.5% | 3.5% | 3.5% | 3.5% | 3.5% | [2] |
| Miscellaneous | | | 1.5% | 1.5% | 1.5% | 1.5% | 1.5% | [2] |
| Buckman Direct Diversion Costs | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [3] |
| City Wholesale Costs | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [4] |
| Utilities | | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | [2] |
| Electricity | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [2] |
| Chemicals | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [2] |
| Flat | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | [2] |
| Insurance | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Interest | | | | | | | | |
| | | | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | |
| New Debt Service | | | | | | | | |
| Low Interest Loans | | | | | | | | |
| Term in Years | | | 20 | 20 | 20 | 20 | 20 | |
| Rate | | | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | |
| Revenue Bond | | | | | | | | |
| Term in Years | | | 20 | 20 | 20 | 20 | 20 | |
| Rate | | | 4.5% | 4.5% | 4.5% | 4.5% | 4.5% | |

- Notes:**
- [1] Population growth is 3.4% for SDA-1 and 0.6% for SF Co., from September, 26, 2016, Santa Fe County Infrastructure Build Out Plan, page 3. A 1.0% growth for consumption was used to be conservative.
 - [2] Escalation factors based on industry experience for utility projections.
 - [3] BDD escalation factors based on County input.
 - [4] City wholesale purchases based on County input.

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Revenues | | | | | | | | [1] |
| Rate Revenues | | | | | | | | |
| Retail | | | | | | | | |
| Residential | \$2,217,332 | \$2,234,073 | \$2,256,414 | \$2,278,978 | \$2,301,768 | \$2,324,785 | \$2,348,033 | [2] As Residential Growth |
| Nonresidential | 589,935 | 498,947 | 503,936 | 508,975 | 514,065 | 519,206 | 524,398 | [2] As Nonresidential Growth |
| Total Retail | \$2,807,267 | \$2,733,019 | \$2,760,350 | \$2,787,953 | \$2,815,833 | \$2,843,991 | \$2,872,431 | |
| Wholesale | | | | | | | | |
| Domestic Association | \$35,238 | \$18,364 | \$18,364 | \$18,364 | \$18,364 | \$18,364 | \$18,364 | [2] As Domestic Association |
| Prison | 0 | 189,779 | 189,779 | 189,779 | 189,779 | 189,779 | 189,779 | [2] As Domestic Association |
| Wholesale 1 - Potable Water | 217,122 | 533,535 | 533,535 | 533,535 | 533,535 | 533,535 | 533,535 | [2] As Wholesale 1 - Potable Water |
| Wholesale 2 - Non-Potable Water | 229,017 | 339,104 | 339,104 | 339,104 | 339,104 | 339,104 | 339,104 | [2] As Wholesale 2 - Non-Potable Water |
| Total Wholesale | \$481,377 | \$1,080,782 | \$1,080,782 | \$1,080,782 | \$1,080,782 | \$1,080,782 | \$1,080,782 | |
| Total Rate Revenues | \$3,288,644 | \$3,813,802 | \$3,841,132 | \$3,868,736 | \$3,896,615 | \$3,924,773 | \$3,953,213 | |
| Non-Operating Revenues | | | | | | | | |
| Inspection Review Fee | \$12,534 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | As Other Revenues |
| Standby Charges | 9,319 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | As Flat |
| Promissory Notes | (172) | 0 | 0 | 0 | 0 | 0 | 0 | As Flat |
| Miscellaneous | 15,129 | 12,000 | 12,360 | 12,731 | 13,113 | 13,506 | 13,911 | As Other Revenues |
| Penalties | 3,439 | 4,000 | 4,120 | 4,244 | 4,371 | 4,502 | 4,637 | As Other Revenues |
| Meter Opt-Fee | 120 | 0 | 0 | 0 | 0 | 0 | 0 | As Other Revenues |
| Water for Resale | 566,420 | 0 | 0 | 0 | 0 | 0 | 0 | Moved to Domestic Assoc and Wholesale 1 |
| Meter Installation Charge | 47,195 | 32,000 | 32,960 | 33,949 | 34,967 | 36,016 | 37,097 | As Other Revenues |
| Line and Hydrants | 24,857 | 36,361 | 37,452 | 38,575 | 39,733 | 40,925 | 42,152 | As Other Revenues |
| Bulk Water | 130,918 | 120,000 | 121,200 | 122,412 | 123,636 | 124,872 | 126,121 | As Bulk Water |
| Contra - Govt'l GRT | (170,987) | 0 | 0 | 0 | 0 | 0 | 0 | [3] Rate Revenues are net of taxes |
| Total Non-Operating Revenues | \$638,772 | \$210,861 | \$214,592 | \$218,411 | \$222,320 | \$226,322 | \$230,419 | |
| Total Revenues | \$3,927,416 | \$4,024,663 | \$4,055,724 | \$4,087,146 | \$4,118,935 | \$4,151,095 | \$4,183,632 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Buckman Direct Diversion Project (BDD) | | | | | | | | |
| Buckman Direct Diversion | \$1,925,477 | \$2,091,792 | \$2,076,153 | \$2,096,914 | \$2,117,884 | \$2,139,062 | \$2,160,453 | [4] As Buckman Direct Diversion Costs |
| Less: Reimbursements | (571,026) | 0 | 0 | 0 | 0 | 0 | 0 | [5] As Miscellaneous |
| Total Buckman Direct Diversion Project (BDD) | \$1,354,451 | \$2,091,792 | \$2,076,153 | \$2,096,914 | \$2,117,884 | \$2,139,062 | \$2,160,453 | |
| Salary & Wages | | | | | | | | |
| Exempt Employees | \$48,244 | \$79,560 | \$82,742 | \$86,052 | \$89,494 | \$93,074 | \$96,797 | As Labor |
| Classified Employees | 576,162 | 725,358 | 754,372 | 784,547 | 815,929 | 848,566 | 882,509 | As Labor |
| Overtime | 14,129 | 20,000 | 20,800 | 21,632 | 22,497 | 23,397 | 24,333 | As Labor |
| Term Employs | 55,920 | 32,705 | 34,013 | 35,374 | 36,789 | 38,260 | 39,791 | As Labor |
| Other Wages | 0 | 0 | 0 | 0 | 0 | 0 | 0 | As Labor |
| | \$694,455 | \$857,623 | \$891,928 | \$927,605 | \$964,709 | \$1,003,298 | \$1,043,430 | |
| Employee Benefits | | | | | | | | |
| FICA - Regular | \$41,262 | \$53,173 | \$54,768 | \$56,411 | \$58,104 | \$59,847 | \$61,642 | As Benefits - Other |
| FICA - Medicare | 9,650 | 12,436 | 12,809 | 13,193 | 13,589 | 13,997 | 14,417 | As Benefits - Other |
| Retirement Contributions | 136,863 | 172,048 | 185,812 | 200,677 | 216,731 | 234,069 | 252,795 | As Retirement |
| Health Care | 88,639 | 149,294 | 153,773 | 158,386 | 163,138 | 168,032 | 173,073 | As Benefits - Medical |
| Retirement Health Care | 13,326 | 16,752 | 17,255 | 17,772 | 18,305 | 18,855 | 19,420 | As Benefits - Medical |
| Workers Comp (Assessment) | 139 | 202 | 208 | 214 | 221 | 227 | 234 | As Benefits - Other |
| | \$289,879 | \$403,905 | \$424,625 | \$446,654 | \$470,087 | \$495,027 | \$521,581 | |
| Travel | | | | | | | | |
| In-State Travel | \$1,426 | \$4,650 | \$4,720 | \$4,791 | \$4,862 | \$4,935 | \$5,009 | As Miscellaneous |
| Out-of-State Travel | 0 | 3,400 | 3,451 | 3,503 | 3,555 | 3,609 | 3,663 | As Miscellaneous |
| | \$1,426 | \$8,050 | \$8,171 | \$8,293 | \$8,418 | \$8,544 | \$8,672 | |
| Vehicle Expenses | | | | | | | | |
| Vehicle Fuel | \$20,989 | \$25,000 | \$25,375 | \$25,756 | \$26,142 | \$26,534 | \$26,932 | As Miscellaneous |
| Vehicle Maintenance | 8,331 | 10,230 | 10,383 | 10,539 | 10,697 | 10,858 | 11,021 | As Miscellaneous |
| | \$29,320 | \$35,230 | \$35,758 | \$36,295 | \$36,839 | \$37,392 | \$37,953 | |
| Maintenance | | | | | | | | |
| Building/Structure | \$1,124 | \$7,000 | \$7,105 | \$7,212 | \$7,320 | \$7,430 | \$7,541 | As Miscellaneous |
| Equipment | 1,955 | 10,000 | 10,150 | 10,302 | 10,457 | 10,614 | 10,773 | As Miscellaneous |
| Infrastructure | 128,658 | 127,000 | 128,905 | 130,839 | 132,801 | 134,793 | 136,815 | As Miscellaneous |
| Laundry & Dry Cleaning | 0 | 0 | 0 | 0 | 0 | 0 | 0 | As Miscellaneous |
| Pest Control | 0 | 800 | 812 | 824 | 837 | 849 | 862 | As Miscellaneous |
| | \$131,737 | \$144,800 | \$146,972 | \$149,177 | \$151,414 | \$153,685 | \$155,991 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|--|-------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Services | | | | | | | | |
| Audit Contract | \$3,717 | \$5,313 | \$5,526 | \$5,747 | \$5,976 | \$6,215 | \$6,464 | As Labor |
| Contractual/Professional | 20,476 | 228,000 | 200,000 | 125,000 | 130,000 | 135,200 | 140,608 | As Labor |
| Software License/Maintenance | 9,628 | 21,318 | 21,851 | 22,397 | 22,957 | 23,531 | 24,119 | As Materials & Supplies |
| Other Services | 3,674 | 13,576 | 13,780 | 13,986 | 14,196 | 14,409 | 14,625 | As Miscellaneous |
| | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| | \$37,495 | \$268,207 | \$241,156 | \$167,130 | \$173,130 | \$179,356 | \$185,817 | |
| Supplies | | | | | | | | |
| Safety Equipment | \$2,912 | \$5,000 | \$5,125 | \$5,253 | \$5,384 | \$5,519 | \$5,657 | As Materials & Supplies |
| Uniform Expense | 0 | 2,500 | 2,563 | 2,627 | 2,692 | 2,760 | 2,829 | As Materials & Supplies |
| Non-Capital Med & Lab | 2,000 | 4,000 | 4,100 | 4,203 | 4,308 | 4,415 | 4,526 | As Materials & Supplies |
| Operational Supplies | 12,857 | 28,516 | 29,229 | 29,960 | 30,709 | 31,476 | 32,263 | As Materials & Supplies |
| Educational Supplies | 301 | 500 | 513 | 525 | 538 | 552 | 566 | As Materials & Supplies |
| | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| | \$18,070 | \$40,516 | \$41,529 | \$42,567 | \$43,631 | \$44,722 | \$45,840 | |
| Other Operating Costs | | | | | | | | |
| Rent of Equip/Machinery | \$297 | \$2,000 | \$2,070 | \$2,142 | \$2,217 | \$2,295 | \$2,375 | As Equipment |
| Telephone | 1,542 | 3,496 | 3,636 | 3,781 | 3,933 | 4,090 | 4,253 | As Utilities |
| Electricity | 6,844 | 41,000 | 7,500 | 7,575 | 7,651 | 7,727 | 7,805 | As Electricity |
| Seminars & Workshops | 4,393 | 8,224 | 8,430 | 8,640 | 8,856 | 9,078 | 9,305 | As Materials & Supplies |
| Postage & Mail Service | 1,953 | 2,000 | 2,050 | 2,101 | 2,154 | 2,208 | 2,263 | As Materials & Supplies |
| Printing/Publishing/Ads | 1,711 | 3,000 | 3,075 | 3,152 | 3,231 | 3,311 | 3,394 | As Materials & Supplies |
| Subscription & Dues | 1,358 | 5,000 | 5,125 | 5,253 | 5,384 | 5,519 | 5,657 | As Materials & Supplies |
| Miscellaneous (City wholesale) | 327,997 | 471,937 | 476,656 | 481,423 | 486,237 | 491,100 | 496,011 | [6] As City Wholesale Costs |
| | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| | \$346,095 | \$536,657 | \$508,542 | \$514,068 | \$519,663 | \$525,328 | \$531,063 | |
| Insurance & Deductibles | | | | | | | | |
| Brokerage & Policy Fees | \$67 | \$438 | \$451 | \$465 | \$479 | \$493 | \$508 | As Insurance |
| Workers Comp Premiums | 13,744 | 15,119 | 15,573 | 16,040 | 16,521 | 17,017 | 17,527 | As Insurance |
| Auto Insurance Premiums | 539 | 817 | 842 | 867 | 893 | 920 | 947 | As Insurance |
| Ge. Liability & Umbrella Prem. | 11,831 | 12,649 | 13,028 | 13,419 | 13,822 | 14,237 | 14,664 | As Insurance |
| Judgments & Settlements | 0 | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 | 25,000 | As Flat |
| Auto Insurance Deductible | 0 | 10,000 | 15,150 | 10,000 | 10,300 | 10,609 | 10,927 | As Insurance |
| | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| | \$26,181 | \$64,023 | \$70,044 | \$65,791 | \$67,014 | \$68,275 | \$69,573 | |
| General Capital Purchases | | | | | | | | |
| Equipment & Machinery | \$21,908 | \$25,000 | \$25,000 | \$25,000 | \$25,000 | \$25,000 | \$25,000 | As Flat |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | As Flat |
| Roadways 9Bridge/Culvert) | 19,838 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | As Flat |
| Inventory Computer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | As Flat |
| Inventory Exempt | 3,154 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | As Flat |
| | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| Total General Capital Purchases | \$44,900 | \$49,000 | \$49,000 | \$49,000 | \$49,000 | \$49,000 | \$49,000 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|--|--------------------|--------------------|----------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Total Operations & Maintenance | \$2,974,009 | \$4,499,803 | \$4,493,877 | \$4,503,494 | \$4,601,790 | \$4,703,688 | \$4,809,371 | |
| | | 51.3% | | | | | | |
| Annual Debt Service | | | | | | | | |
| New Debt - Revenue Bond | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | Calc @ 4.5% for 20 Yrs |
| Total Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Less: From Water Impact Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Net Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Capital Improvements from Rates (See Exhibit 4) | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$0 | [7] See Exhibit 4 |
| Transfers | | | | | | | | |
| Transfers - Cost Allocation | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | As Labor |
| To/(From) Operating Reserve | 953,407 | (475,140) | (1,130,863) | (772,590) | (470,857) | (137,755) | 1,229,615 | Balance |
| Total Transfers | \$953,407 | (\$475,140) | (\$1,130,863) | (\$772,590) | (\$470,857) | (\$137,755) | \$1,229,615 | |
| Total Revenue Requirement | \$3,927,416 | \$4,024,663 | \$4,363,014 | \$4,730,904 | \$5,130,932 | \$5,565,932 | \$6,038,986 | |
| Bal/(Def.) of Funds | \$0 | (\$0) | (\$307,291) | (\$643,758) | (\$1,011,998) | (\$1,414,837) | (\$1,855,354) | |
| Rate Adj. as a % of Rate Rev. | 0.0% | 0.0% | 8.0% | 16.6% | 26.0% | 36.0% | 46.9% | |
| Proposed Rate Adjustment | 0.0% | 0.0% | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% | |
| Add'l Revenue from Adj. | \$0 | \$0 | \$307,291 | \$643,758 | \$1,011,998 | \$1,414,837 | \$1,855,354 | |
| Total Bal/(Def.) of Funds | \$0 | (\$0) | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Additional Rate Increase Needed | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Debt Service Coverage Ratio (DSC) | | | | | | | | |
| Before Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | [8] |
| After Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Target | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | |
| Avg Monthly Residential Bill at 5,000 Gallons | \$45.10 | | | | | | | |
| After Proposed Rate Adjustment | \$45.10 | \$45.10 | \$48.71 | \$52.61 | \$56.82 | \$61.37 | \$66.28 | [9] |
| Monthly \$ Change | \$0.00 | \$0.00 | \$3.61 | \$3.90 | \$4.21 | \$4.55 | \$4.91 | |
| Cumulative Change | \$0.00 | \$0.00 | \$3.61 | \$7.51 | \$11.72 | \$16.27 | \$21.18 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Operating Reserve | | | | | | | | |
| Beginning Balance | \$5,179,785 | \$6,133,192 | \$5,658,052 | \$4,527,189 | \$3,754,599 | \$3,283,742 | \$3,145,986 | [10] From 2017 CAFR |
| Plus: CIP from Rates | 0 | 0 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 0 | See Exhibit 4 |
| From Operating (Change in WC) | 953,407 | (475,140) | (1,130,863) | (772,590) | (470,857) | (137,755) | 1,229,615 | |
| New Revenue Bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | See Exhibit 4 |
| Less: Capital Improvements | 0 | 0 | (1,000,000) | (1,000,000) | (1,000,000) | (1,000,000) | 0 | See Exhibit 4 |
| Ending Balance | \$6,133,192 | \$5,658,052 | \$4,527,189 | \$3,754,599 | \$3,283,742 | \$3,145,986 | \$4,375,601 | |
| Target Minimum | | | | | | | | |
| Minimum 50% of Operating Budget | \$1,487,000 | \$2,249,900 | \$2,246,900 | \$2,251,700 | \$2,300,900 | \$2,351,800 | \$2,404,700 | |

Notes:

- [1] The FY 2017 actual, and FY 2018 budget revenue and expense are based on the budget documents provided by the County, which were split between water and sewer utilities. See Note 2 for FY 2018 rate revenue.
- [2] Rate revenues for budget FY 2018 are calculated based on customer billing data for FY 2017, present rate schedule, adjusted for one year's growth. See Exhibit 5.
- [3] For budget FY 2017 taxes are an in and an out and included in the rate revenue totals and subtracted in the "Contra Gov't I GRT" revenue. For this analysis taxes are not included.
- [4] BDD expenses for budget FY 2018 are based on budget projections for BDD. See Exhibit 7B.
- [5] The FY 2017 budget "reimbursement" was a reserve from BDD prior billing based on projections to actual. BDD is now billed on actual and reserves are used based on County input.
- [6] The FY 2017 budget category "Operating Costs" includes the wholesale purchases from the City for when the BDD is not available. This occurs at least one time a year based on County input.
- [7] The level of CIP from rates was set to annual depreciation by FY 2023. Annual depreciation from the FY 2017 CAFR of \$2.5 M, 2/3 to Water equals \$1,666,667, rounded to \$1.7M million.
- [8] The County has funded capital projects through G.O. Bonds which are paid by property taxes. This is a place holder for future rate revenue debt.
- [9] The FY 2017 "Average Monthly Residential Bill" is from Exhibit 5, total revenues, divided by the total customers, divided 12 months. Projected forward based on proposed rate adjustments shown above.
- [10] The FY 2017 beginning balance is \$13,869,677 from the 2017 CAFR report. \$6,100,000 is reserved for Aamodt. Assumed water allocated 2/3, sewer 1/3. $(\$13,869,677 - \$6,100,000) * 2/3$

Santa Fe County
Water Rate Study
Exhibit 4
Capital Improvement Funding

| ID | Project Title | FY 2017 | FY 2018 | FY 2019 | FY 2020 | Projected FY 2021 | FY 2022 | FY 2023 | Total | Notes |
|--|--|---------|---------------|-------------|---------------|----------------------|---------------|---------------|---------------|-------|
| Water Capital Improvement Projects (CIP) | | | | | | | | | | |
| 348 | Install Supervisory Control and Data Acquisition (SCADA) | \$0 | \$300,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$300,000 | [1] |
| 762 | Water Rights Purchases | 0 | 700,000 | 0 | 0 | 0 | 0 | 0 | 700,000 | |
| 1257 | Water Meters | 0 | 162,648 | 0 | 0 | 0 | 0 | 0 | 162,648 | |
| 399 | Acquire, Design and Construct Bulk Water Station | 0 | 0 | 300,000 | 0 | 0 | 0 | 0 | 300,000 | |
| 759 | Bulk Water Station - | 0 | 0 | 200,000 | 0 | 0 | 0 | 0 | 200,000 | |
| 293 | Distribution Improv. for existing SF County Public water supplies | 0 | 0 | 0 | 500,000 | 0 | 0 | 0 | 500,000 | |
| 347 | Analysis of Backup Water Supply and Storage for SFCU | 0 | 0 | 0 | 350,000 | 0 | 0 | 0 | 350,000 | |
| 312 | Long term upgrades newly acquired water, wastewater systems | 0 | 0 | 0 | 0 | 1,350,000 | 0 | 0 | 1,350,000 | |
| 1071 | Connection to TL6S Waterline | 0 | 0 | 0 | 0 | 0 | 10,000,000 | 0 | 10,000,000 | [2] |
| 1175 | Aamodt Settlement Implementation | 0 | 6,500,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 0 | 10,500,000 | [3] |
| | BDD10 MG Redundancy | 0 | 0 | 180,000 | 0 | 0 | 0 | 0 | 180,000 | |
| | Total Water Capital Improvement Projects | \$0 | \$7,662,648 | \$1,680,000 | \$1,850,000 | \$2,350,000 | \$11,000,000 | \$0 | \$24,542,648 | |
| Water Capital Improvement Projects (CIP) - Long Term | | | | | | | | | | |
| 298 | Water Infra. Improv. in Sustainable Development Area 1 | \$0 | \$0 | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$3,000,000 | [4] |
| 356 | Design construct a Waterline on Los Pinos Road - La Cienega (TL7S) | 0 | 0 | 0 | 0 | 0 | 1,731,000 | 0 | 1,731,000 | |
| | Total Water Capital Improvement Projects - Long Term | \$0 | \$0 | \$0 | \$0 | \$1,000,000 | \$2,731,000 | \$1,000,000 | \$4,731,000 | |
| Utilities Capital Improvement Projects (split 50%/50% water and wastewater) | | | | | | | | | | |
| 1122 | AS400 Billing Module | \$0 | \$52,221 | \$0 | \$0 | \$0 | \$0 | \$0 | \$52,221 | |
| 660 | Water and Wastewater Equipment - full size dump truck | 0 | 0 | 0 | 150,000 | 0 | 0 | 0 | 150,000 | |
| | Total Utilities Capital Improvement Projects | \$0 | \$52,221 | \$0 | \$150,000 | \$0 | \$0 | \$0 | \$202,221 | |
| | Total Capital Improvement Projects | \$0 | \$7,714,869 | \$1,680,000 | \$2,000,000 | \$3,350,000 | \$13,731,000 | \$1,000,000 | \$29,475,869 | |
| | Deferred Projects | \$0 | (\$1,214,869) | (\$680,000) | (\$1,000,000) | (\$2,350,000) | (\$2,731,000) | (\$1,000,000) | (\$8,975,869) | |
| | Total Capital Improvement Projects | \$0 | \$6,500,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$11,000,000 | \$0 | \$20,500,000 | |
| Less: Outside Funding Sources | | | | | | | | | | |
| | Operating Reserve | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| | Restricted Reserve | 0 | 6,500,000 | 0 | 0 | 0 | 0 | 0 | 6,500,000 | [3] |
| | Grants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | G.O. Bonds | 0 | 0 | 0 | 0 | 0 | 10,000,000 | 0 | 10,000,000 | [2] |
| | New Revenue Bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Total Outside Funding Sources | \$0 | \$6,500,000 | \$0 | \$0 | \$0 | \$10,000,000 | \$0 | \$16,500,000 | |
| | Rate Funded Capital | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$0 | \$4,000,000 | [5] |

Notes:

- [1] The CIP plan was based on the County capital improvement plan provided from FY 2017 through FY 2023 and County staff input on projects.
- [2] The 1071 project would be funded by G.O. bonds based on County input.
- [3] Restricted reserves for Aamodt of \$6.5 million. Aamodt of \$4 million funded from rates over four years based on County input.
- [4] The Master plan for SDA1 is still being completed. The level shown here is based on best available information at the time.
- [5] The level of CIP from rates was set to annual depreciation by FY 2023. Annual depreciation from the FY 2017 CAFR of \$2.5 M, 2/3 to Water equals \$1,666,667, rounded to \$1.7M million.

Calculated Revenues at Present Rates - FY 2016/2017

| | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Total | Notes | Peak to Avg |
|--|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|--------------------|
| Residential Water Service | | | | | | | | | | | | | | | |
| Monthly Service Fee | \$/Acct | | | | | | | | | | | | Avg | [1] | |
| 5/8" | \$14.50 | 3,210 | 3,225 | 3,236 | 3,228 | 3,227 | 3,232 | 3,448 | 3,242 | 3,241 | 3,267 | 3,091 | 3,312 | | |
| 3/4" | \$15.68 | 15 | 16 | 15 | 15 | 16 | 15 | 16 | 16 | 15 | 16 | 16 | 16 | | |
| 1" | \$17.99 | 182 | 181 | 181 | 182 | 182 | 181 | 166 | 181 | 181 | 182 | 181 | 166 | | |
| 1-1/2" | \$38.99 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 2" | \$40.42 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | | |
| 3" | \$61.08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 3,409 | 3,425 | 3,434 | 3,427 | 3,427 | 3,430 | 3,631 | 3,441 | 3,439 | 3,467 | 3,290 | 3,495 | | |
| Total Monthly Service Revenue | | \$50,134 | \$50,388 | \$50,493 | \$50,395 | \$50,396 | \$50,435 | \$53,272 | \$50,595 | \$50,565 | \$50,976 | \$48,406 | \$51,300 | | \$607,355 |
| Usage Charge | \$/1,000 gals | | | | | | | | | | | | | | |
| First 5,000 gallons | \$6.12 | 12,661 | 13,399 | 11,620 | 11,209 | 10,830 | 10,366 | 10,288 | 8,360 | 7,970 | 9,673 | 12,541 | 12,122 | 131,039 | 1.23 |
| Next 5,000 Gallons | 8.43 | 5,144 | 6,074 | 3,617 | 3,178 | 2,666 | 1,564 | 1,447 | 598 | 633 | 1,741 | 3,525 | 4,044 | 34,231 | 2.13 |
| Next 5,000 Gallons | 13.02 | 2,309 | 2,873 | 1,467 | 1,147 | 1,026 | 289 | 296 | 123 | 118 | 363 | 1,053 | 1,551 | 12,615 | 2.73 |
| Above 15,000 Gallons | 17.62 | 2,966 | 4,616 | 2,236 | 1,366 | 1,168 | 439 | 532 | 300 | 203 | 310 | 1,044 | 5,173 | 20,353 | 3.05 |
| | | 23,080 | 26,962 | 18,940 | 16,900 | 15,690 | 12,658 | 12,563 | 9,381 | 8,924 | 12,087 | 18,163 | 22,890 | 198,238 | 1.63 |
| Total Usage Revenue | | \$203,173 | \$251,946 | \$160,104 | \$134,392 | \$122,693 | \$88,122 | \$88,389 | \$63,092 | \$59,226 | \$84,064 | \$138,572 | \$219,620 | | \$1,613,393 |
| Total Residential Water Service | | \$253,307 | \$302,334 | \$210,597 | \$184,787 | \$173,089 | \$138,557 | \$141,661 | \$113,687 | \$109,791 | \$135,040 | \$186,978 | \$270,920 | | \$2,220,748 |
| Non-Residential Water Service | | | | | | | | | | | | | | | |
| Monthly Service Fee | \$/Acct | | | | | | | | | | | | Avg | [1] | |
| 5/8" | \$30.68 | 11 | 11 | 11 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | | 11 |
| 3/4" | \$43.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 1" | \$69.42 | 13 | 13 | 13 | 13 | 13 | 13 | 31 | 13 | 13 | 13 | 12 | 30 | | 16 |
| 1-1/2" | \$133.99 | 13 | 13 | 13 | 13 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | | 14 |
| 2" | \$211.46 | 22 | 22 | 22 | 22 | 22 | 22 | 23 | 22 | 22 | 22 | 22 | 23 | | 22 |
| 3" | \$407.77 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | | 3 |
| 4" | \$484.45 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 |
| 6" | \$964.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 8" | \$1,539.58 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | 2 |
| 10" | \$2,138.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| | | 65 | 65 | 65 | 65 | 66 | 67 | 85 | 67 | 67 | 66 | 64 | 83 | | 69 |
| Total Monthly Service Revenue | | \$12,421 | \$12,421 | \$12,421 | \$12,421 | \$12,555 | \$12,586 | \$13,639 | \$12,586 | \$12,586 | \$12,178 | \$12,078 | \$13,539 | | \$151,428 |
| Usage Charge | \$/1,000 gals | | | | | | | | | | | | | | |
| First 5,000 gallons | \$5.91 | 575 | 636 | 581 | 534 | 554 | 641 | 627 | 525 | 532 | 549 | 745 | 647 | 7,146 | 1.25 |
| Next 5,000 Gallons | 8.16 | 151 | 166 | 152 | 141 | 139 | 132 | 123 | 115 | 102 | 123 | 208 | 198 | 1,750 | 1.43 |
| Next 5,000 Gallons | 12.65 | 127 | 139 | 128 | 101 | 93 | 97 | 88 | 90 | 75 | 91 | 165 | 152 | 1,346 | 1.47 |
| Above 15,000 Gallons | 17.07 | 1,363 | 1,878 | 1,501 | 1,317 | 1,088 | 983 | 813 | 912 | 760 | 1,025 | 2,763 | 1,473 | 15,876 | 2.09 |
| | | 2,216 | 2,819 | 2,362 | 2,093 | 1,874 | 1,853 | 1,651 | 1,642 | 1,469 | 1,788 | 3,881 | 2,470 | 26,118 | 1.78 |
| Total Usage Revenue | | \$29,503 | \$38,929 | \$31,915 | \$28,065 | \$24,157 | \$22,872 | \$19,700 | \$20,747 | \$17,898 | \$22,896 | \$55,352 | \$32,506 | | \$344,543 |
| Total Non-Residential Water Service | | \$41,924 | \$51,350 | \$44,336 | \$40,486 | \$36,712 | \$35,458 | \$33,339 | \$33,333 | \$30,484 | \$35,074 | \$67,430 | \$46,045 | | \$495,971 |

Calculated Revenues at Present Rates - FY 2016/2017

| | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Total | Notes | Peak to Avg |
|--|----------------------|-----------------|------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|--------------------|-------------|
| Wholesale | | | | | | | | | | | | | | [1] | |
| Domestic Association | | | | | | | | | | | | | | | |
| <u>Monthly Service Fee</u> | <u>\$/Acct</u> | | | | | | | | | | | | | | |
| <u>Agua Fria</u> | | | | | | | | | | | | | | | |
| 202 1-1/2" | \$133.99 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 206 6" | \$964.05 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| <u>SFCo Public Works</u> | | | | | | | | | | | | | | | |
| 203 2" | \$211.46 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| <u>State Penitentiary</u> | | | | | | | | | | | | | | | |
| 207 8" | \$1,539.58 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| <u>Usage Charge</u> | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | |
| Agua Fria | \$3.22 | 264 | 0 | 102 | 39 | 32 | 51 | 32 | 2 | 69 | 2 | 1 | 0 | 593 | 5.34 |
| SFCo Public Works | \$3.22 | 50 | 18 | 21 | 8 | 16 | 23 | 9 | 8 | 32 | 8 | 15 | 23 | 230 | 2.60 |
| State Penitentiary | \$3.22 | 5,869 | 6,000 | 4,408 | 3,760 | 3,485 | 4,346 | 4,313 | 6,858 | 305 | 4,222 | 5,101 | 4,533 | 53,200 | 1.55 |
| | | 6,183 | 6,018 | 4,531 | 3,807 | 3,533 | 4,419 | 4,354 | 6,868 | 407 | 4,232 | 5,117 | 4,556 | 54,023 | 1.53 |
| <u>Revenue</u> | | | | | | | | | | | | | | | |
| Agua Fria | | \$1,948 | \$1,098 | \$1,426 | \$1,224 | \$1,201 | \$1,261 | \$1,199 | \$1,104 | \$1,322 | \$1,104 | \$1,100 | \$1,098 | \$15,086 | |
| SFCo Public Works | | 372 | 269 | 279 | 236 | 262 | 285 | 242 | 236 | 315 | 236 | 260 | 286 | 3,278 | |
| State Penitentiary | | 20,438 | 20,860 | 15,733 | 13,647 | 12,761 | 15,534 | 15,427 | 23,622 | 2,522 | 15,134 | 17,965 | 16,136 | 189,779 | |
| Total Domestic Association | | \$22,758 | \$22,227 | \$17,439 | \$15,106 | \$14,224 | \$17,079 | \$16,869 | \$24,962 | \$4,159 | \$16,475 | \$19,325 | \$17,520 | \$208,143 | |
| Wholesale 1 - Potable Water | | | | | | | | | | | | | | | |
| <u>Monthly Service Fee</u> | <u>\$/Acct</u> | | | | | | | | | | | | | | |
| <u>SF Community College</u> | | | | | | | | | | | | | | | |
| 197 3" | \$407.77 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 3 | |
| <u>LC Co Op</u> | | | | | | | | | | | | | | | |
| 210 4" | \$484.45 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| <u>Usage Charge</u> | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | |
| SF Community College | \$5.47 | 440 | 409 | 393 | 364 | 275 | 197 | 103 | 214 | 133 | 207 | 314 | 240 | 3,289 | 1.61 |
| LC Co Op | \$5.47 | 12,703 | 15,696 | 10,161 | 14,547 | 9,245 | 3,562 | 2,031 | 2,365 | 1,761 | 2,971 | 4,970 | 10,491 | 90,503 | 2.08 |
| | | 13,143 | 16,105 | 10,554 | 14,911 | 9,520 | 3,759 | 2,134 | 2,579 | 1,894 | 3,178 | 5,284 | 10,731 | 93,792 | 2.06 |
| <u>Revenue</u> | | | | | | | | | | | | | | | |
| SF Community College | | \$3,630 | \$3,461 | \$3,373 | \$3,214 | \$2,728 | \$2,301 | \$1,787 | \$1,986 | \$2,359 | \$2,356 | \$2,941 | \$2,536 | \$32,671 | |
| LC Co Op | | 69,970 | 86,342 | 56,065 | 80,057 | 51,055 | 19,969 | 11,594 | 13,421 | 10,117 | 16,736 | 27,670 | 57,870 | 500,865 | |
| Total Wholesale 1 - Potable Water | | \$73,600 | \$89,802 | \$59,438 | \$83,271 | \$53,782 | \$22,269 | \$13,381 | \$15,407 | \$12,476 | \$19,091 | \$30,611 | \$60,406 | \$533,535 | |
| Wholesale 2 - Non-Potable Water | | | | | | | | | | | | | | | |
| <u>SFCo Open Space</u> | | | | | | | | | | | | | | | |
| 201 2" | \$211.46 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| <u>LC Club</u> | | | | | | | | | | | | | | | |
| 199 6" | \$964.05 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| <u>Usage Charge</u> | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | |
| SFCo Open Space | \$4.01 | 418 | 230 | 177 | 0 | 2 | 0 | 0 | 0 | 0 | 45 | 124 | 179 | 1,174 | 4.28 |
| LC Club | \$4.01 | 0 | 0 | 0 | 20,496 | 0 | 0 | 0 | 0 | 0 | 11,540 | 21,689 | 26,148 | 79,873 | 3.93 |
| | | 418 | 230 | 177 | 20,496 | 2 | 0 | 0 | 0 | 0 | 11,585 | 21,813 | 26,326 | 81,047 | 3.90 |
| Total Wholesale 2 - Non-Potable Water | | \$2,853 | \$2,096 | \$1,886 | \$83,366 | \$1,182 | \$1,176 | \$1,176 | \$1,176 | \$1,176 | \$47,630 | \$88,645 | \$106,744 | \$339,104 | |
| Total Wholesale | | \$99,211 | \$114,125 | \$78,763 | \$181,743 | \$69,188 | \$40,524 | \$31,425 | \$41,545 | \$17,810 | \$83,196 | \$138,581 | \$184,670 | \$1,080,782 | |

Calculated Revenues at Present Rates - FY 2016/2017

| | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Total | Notes | Peak to Avg |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|-------|-------------|
| Summary | | | | | | | | | | | | | | | |
| Customer Accounts | | | | | | | | | | | | | | | |
| Residential Water Service | 3,409 | 3,425 | 3,434 | 3,427 | 3,427 | 3,430 | 3,631 | 3,441 | 3,439 | 3,467 | 3,290 | 3,495 | 3,495 | | |
| Non-Residential Water Service | 65 | 65 | 65 | 65 | 66 | 67 | 85 | 67 | 67 | 66 | 64 | 83 | 83 | | |
| Wholesale | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 11 | 10 | 10 | 10 | 10 | | |
| Total Customers | 3,484 | 3,500 | 3,509 | 3,502 | 3,503 | 3,507 | 3,726 | 3,517 | 3,517 | 3,543 | 3,364 | 3,588 | 3,588 | | |
| Consumption (1,000 gallons) | | | | | | | | | | | | | | | |
| Residential Water Service | 23,080 | 26,962 | 18,940 | 16,900 | 15,690 | 12,658 | 12,563 | 9,381 | 8,924 | 12,087 | 18,163 | 22,890 | 198,238 | | |
| Non-Residential Water Service | 2,216 | 2,819 | 2,362 | 2,093 | 1,874 | 1,853 | 1,651 | 1,642 | 1,469 | 1,788 | 3,881 | 2,470 | 26,118 | | |
| Wholesale | 19,744 | 22,352 | 15,262 | 39,214 | 13,054 | 8,178 | 6,488 | 9,447 | 2,301 | 18,994 | 32,214 | 41,613 | 228,862 | | |
| Total Consumption (Gallons) | 45,040 | 52,133 | 36,564 | 58,207 | 30,618 | 22,689 | 20,702 | 20,470 | 12,694 | 32,869 | 54,258 | 66,973 | 453,218 | | |
| Total Revenue | | | | | | | | | | | | | | | |
| Residential Water Service | \$253,307 | \$302,334 | \$210,597 | \$184,787 | \$173,089 | \$138,557 | \$141,661 | \$113,687 | \$109,791 | \$135,040 | \$186,978 | \$270,920 | \$2,220,748 | | |
| Non-Residential Water Service | 41,924 | 51,350 | 44,336 | 40,486 | 36,712 | 35,458 | 33,339 | 33,333 | 30,484 | 35,074 | 67,430 | 46,045 | 495,971 | | |
| Wholesale | 99,211 | 114,125 | 78,763 | 181,743 | 69,188 | 40,524 | 31,425 | 41,545 | 17,810 | 83,196 | 138,581 | 184,670 | 1,080,782 | | |
| Total Revenue | \$394,443 | \$467,809 | \$333,697 | \$407,017 | \$278,989 | \$214,539 | \$206,425 | \$188,565 | \$158,085 | \$253,310 | \$392,989 | \$501,635 | \$3,797,502 | | |

| Class of Service | Calculated FY 2017 | Growth Escalator | Calculated FY 2018 | Budget FY 2018 | % Difference | [2] |
|---------------------------------|--------------------|------------------|--------------------|--------------------|--------------|-----|
| Residential Water Service | \$2,220,748 | 0.6% | \$2,234,073 | \$2,244,233 | -0.5% | |
| Non-Residential Water Service | 495,971 | 0.6% | 498,947 | 570,000 | -12.5% | |
| Domestic Association | 18,364 | 0.0% | 18,364 | 0 | 0.0% | |
| Prison | 189,779 | 0.0% | 189,779 | 0 | 0.0% | |
| Wholesale 1 - Potable Water | 533,535 | 0.0% | 533,535 | 796,852 | -33.0% | |
| Wholesale 2 - Non-Potable Water | 339,104 | 0.0% | 339,104 | 396,000 | -14.4% | |
| Deduct Tax in Revenue (5%) | 0 | | 0 | (186,816) | 0.0% | |
| Total | \$3,797,502 | | \$3,813,802 | \$3,820,269 | -0.2% | [3] |

Notes:

[1] Revenue at present rates was based on County billing data for customer and usage, and the current rate schedule. This calculation was compared to the billing data invoices.

[2] Calculated FY 2017 data was used to calculate FY 2018 rate revenues based on assumed growth escalation factor from Exhibit 2.

[3] Budget FY 2018 were provided by the County and compared to the calculated FY 2017, plus growth for accuracy of billing data to budget data. Calculated FY 2017 and FY 2018 do not include taxes or contra account.

Santa Fe County
Water Rate Study
Exhibit 6
Summary of Production to Sales

FY 2017 PRODUCTION TO SALES In ACRE-FEET

| | Total | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Notes |
|--------------------------|----------------|--------------|---------------|--------------|---------------|---------------|--------------|-------------|--------------|--------------|--------------|--------------|----------------|-------|
| Production Report | | | | | | | | | | | | | | |
| Potable, non-wholesale | 1,157.9 | 161.1 | 69.6 | 128.9 | 120.5 | 80.5 | 65.4 | 65.3 | 57.3 | 68.0 | 82.8 | 117.0 | 141.6 | |
| Potable, wholesale | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Raw | 273.8 | 0.0 | 0.0 | 59.2 | 42.7 | 0.0 | 0.0 | 0.0 | 0.0 | 33.0 | 63.1 | 75.8 | 0.0 | |
| Other Sources | 74.2 | 0.0 | 74.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total | 1,505.9 | 161.1 | 143.7 | 188.1 | 163.1 | 80.5 | 65.4 | 65.3 | 57.3 | 101.1 | 146.0 | 192.7 | 141.6 | [1] |
| Sales | | | | | | | | | | | | | | |
| Potable, non-wholesale | 688.5 | 77.6 | 91.4 | 65.4 | 58.3 | 53.9 | 44.5 | 43.6 | 33.8 | 31.9 | 42.6 | 67.7 | 77.8 | |
| Potable, wholesale | 453.6 | 59.3 | 67.9 | 46.3 | 57.4 | 40.1 | 25.1 | 19.9 | 29.0 | 7.1 | 22.7 | 31.9 | 46.9 | |
| Raw | 248.7 | 1.3 | 0.7 | 0.5 | 62.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 35.6 | 66.9 | 80.8 | |
| Total | 1,390.9 | 138.2 | 160.0 | 112.2 | 178.6 | 94.0 | 69.6 | 63.5 | 62.8 | 39.0 | 100.9 | 166.5 | 205.5 | [2] |
| Difference | 115.0 | 22.9 | (16.2) | 75.9 | (15.5) | (13.4) | (4.2) | 1.7 | (5.5) | 62.1 | 45.1 | 26.2 | (205.5) | |
| % Difference | 7.6% | 14.2% | -11.3% | 40.3% | -9.5% | -16.7% | -6.4% | 2.6% | -9.7% | 61.5% | 30.9% | 13.6% | -145.2% | |

FY 2017 PRODUCTION TO SALES In Kgals

| | Total | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 |
|--------------------------|------------------|-----------------|------------------|-----------------|------------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|-----------------|-------------------|
| Production Report | | | | | | | | | | | | | |
| Potable, non-wholesale | 377,296.3 | 52,502.4 | 22,664.2 | 41,986.6 | 39,258.5 | 26,236.6 | 21,321.6 | 21,262.5 | 18,662.3 | 22,164.6 | 26,992.6 | 38,110.3 | 46,134.0 |
| Potable, wholesale | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Raw | 89,230.6 | 0.0 | 0.0 | 19,304.6 | 13,897.7 | 0.0 | 0.0 | 0.0 | 0.0 | 10,763.7 | 20,571.2 | 24,693.4 | 0.0 |
| Other Sources | 24,175.1 | 0.0 | 24,175.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 490,702.1 | 52,502.4 | 46,839.4 | 61,291.2 | 53,156.2 | 26,236.6 | 21,321.6 | 21,262.5 | 18,662.3 | 32,928.3 | 47,563.8 | 62,803.8 | 46,134.0 |
| Sales | | | | | | | | | | | | | |
| Potable, non-wholesale | 224,355.3 | 25,295.9 | 29,780.9 | 21,301.9 | 18,992.9 | 17,563.9 | 14,511.0 | 14,214.0 | 11,023.0 | 10,393.0 | 13,875.0 | 22,043.9 | 25,359.9 |
| Potable, wholesale | 147,814.4 | 19,325.8 | 22,122.8 | 15,085.1 | 18,717.4 | 13,052.6 | 8,178.3 | 6,487.9 | 9,446.5 | 2,300.7 | 7,409.6 | 10,400.7 | 15,287.2 |
| Raw | 81,046.7 | 418.4 | 229.5 | 177.2 | 20,496.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 11,584.6 | 21,812.9 | 26,326.2 |
| Total | 453,216.4 | 45,040.2 | 52,133.2 | 36,564.2 | 58,206.8 | 30,618.1 | 22,689.2 | 20,701.8 | 20,469.4 | 12,693.7 | 32,869.1 | 54,257.5 | 66,973.2 |
| Difference | 37,485.6 | 7,462.2 | (5,293.9) | 24,727.0 | (5,050.5) | (4,381.5) | (1,367.6) | 560.6 | (1,807.1) | 20,234.7 | 14,694.7 | 8,546.3 | (66,973.2) |
| % Difference | 7.6% | 14.2% | -11.3% | 40.3% | -9.5% | -16.7% | -6.4% | 2.6% | -9.7% | 61.5% | 30.9% | 13.6% | -145.2% |

Notes:

[1] Production report for FY 2017 provided by County.

[2] Sales based on billing information and calculated revenues from Exhibit 5.

Santa Fe County
Water Rate Study
Exhibit 7A
Summary of Total Buckman Direct Diversion Allocation to County

Total Buckman Direct Diversion (BDD) Santa Fe County Shared and Separate Allocation

| | County | City | Las Campanas | TOTAL | Notes |
|---|---------------------------|----------------|---------------|-----------------|-------------------------|
| Buckman Diversion - Shared Facilities | | | | | |
| Facility Operations and Procedures (FOP) Agreement for BDD BDD Project Facility Peak Diversion Capacity Allocation (MGD) Percentage Peak Diversion Capacity Allocations | 9/7/2006 3.7 20.33% | 11.3 62.09% | 3.2 17.58% | 18.2 100.00% | |
| Assignment from Las Campanas to | 2012 | | | | |
| Las Campanas Homeowner's Water Cooperative | | | 1.26 | 6.93% | |
| Las Campanas Club | | | 0.98 | 5.37% | |
| Arizona Rights LLC | | | 0.96 | 5.28% | |
| | | | 3.20 | 17.58% | |
| First Amendment to FOP for BDD | 7/1/2016 | | | | |
| Arizona Rights LLC assigned to County | 0.96 | | (0.96) | | |
| BDD Project Facility Peak Diversion Capacity Allocation (MGD) | 4.7 | 11.3 | 2.2 | 18.2 | |
| Percentage Peak Diversion Capacity Allocations | 25.61% | 62.09% | 12.30% | 100.00% | BDD - Shared % |
| Buckman Diversion - Separate Facilities | | | | | |
| City County Separate Facilities | | | | | |
| BDD Project Facility Peak Diversion Capacity Allocation (MGD) | 3.7 | 11.3 | | 15.0 | |
| Percentage Peak Diversion Capacity Allocations | 24.67% | 75.33% | | 100.00% | BDD - Separate % |

Total Buckman Direct Diversion (BDD) to Santa Fe County Costs

| | Sum of FY19 BUDGET | County % | County Amount | City % | City Amount | LC-Coop % | LC Amount | LC-Club % | LC Amount | Notes |
|---------------------------------------|--------------------|----------|--------------------|--------|--------------------|-----------|-----------------|-----------|------------------|-------|
| OPERATING FUND | | | | | | | | | | |
| Shared Facilities (Fixed) | \$871,694 | 25.61% | \$223,241 | 62.09% | \$541,235 | 6.93% | \$60,408 | 5.37% | \$46,810 | |
| Separate Facilities (Fixed) | 1,983,985 | 24.67% | 489,449 | 75.33% | 1,494,536 | 0.00% | 0 | 0.00% | 0 | |
| Project Wide 25/75 Fixed | | | | | | | | | | |
| Project Wide Fixed | 2,912,424 | 23.14% | 673,935 | 71.76% | 2,089,955 | 0.00% | 0 | 5.10% | 148,534 | |
| Project Wide Litigation | 1,092,122 | 23.14% | 252,717 | 71.76% | 783,707 | 0.00% | 0 | 5.10% | 55,698 | |
| Total Fixed Costs | \$6,860,225 | | \$1,639,342 | | \$4,909,433 | | \$60,408 | | \$251,042 | |
| Shared Facilities (Variable) | \$908,000 | 23.14% | \$210,111 | 71.76% | \$651,581 | 0.00% | \$0 | 5.10% | \$46,308 | |
| Separate Facilities (Variable) | 830,400 | 20.44% | 169,734 | 79.56% | 660,666 | 0.00% | 0 | 0.00% | 0 | |
| PNM Solar Rebate Revenue | (120,000) | 20.44% | (24,528) | 79.53% | (95,436) | 0.00% | 0 | 0.00% | 0 | |
| 50/50 BS2A Solar Savings | (150,000) | 50.00% | (75,000) | 50.00% | (75,000) | 0.00% | 0 | 0.00% | 0 | |
| Total Variable Costs | \$1,468,400 | | \$280,317 | | \$1,141,811 | | \$0 | | \$46,308 | |
| TOTAL OPERATING FUND | \$8,328,625 | | \$1,919,659 | | \$6,051,244 | | \$60,408 | | \$297,350 | [1] |

Notes:

[1] From BDD cost report provided by BDD for FY 2019.

Santa Fe County
Water Rate Study
Exhibit 7B
Summary of Buckman Direct Diversion Allocation County to Potable and Raw

| County Annual Water Order (Projections) | AF | MGD | Separate | Shared |
|---|-------|-----|---------------------------|------------------------|
| Potable, total | 1,148 | 3.5 | | |
| Potable, non-wholesale | 913 | 2.8 | 79.5% County - Separate % | 63.1% County- Shared % |
| Potable, wholesale | 235 | 0.7 | 20.5% County - Separate % | 16.2% County- Shared % |
| Raw | 300 | 0.9 | - County - Separate % | 20.7% County- Shared % |
| Total | 1,448 | 4.4 | 100.0% | 100.0% |

| Component | FY 2019 Total County Budget | % Potable | Potable | % Potable Wholesale | Potable - Wholesale | % Raw | Raw | Notes |
|---|-----------------------------|-----------|--------------------|---------------------|---------------------|-------|------------------|-------|
| OPERATING FUND | | | | | | | | |
| Shared Facilities (Fixed) | \$223,241 | 63.1% | \$140,759 | 16.2% | \$36,230 | 20.7% | \$46,252 | |
| Separate Facilities (Fixed) | 489,449 | 79.5% | 389,257 | 20.5% | 100,192 | | | |
| Project Wide 25/75 Fixed | | | | | | | | |
| 25 % Shared Facilities (Fixed) | 673,935 | 63.1% | 424,933 | 16.2% | 109,375 | 20.7% | 139,627 | |
| 75 % Separate Facilities (Fixed) | 252,717 | 79.5% | 200,985 | 20.5% | 51,732 | | | |
| Total Fixed Costs | \$1,639,342 | | \$1,155,934 | | \$297,529 | | \$185,879 | |
| Shared Facilities (Variable) | \$210,111 | 63.1% | \$132,480 | 16.2% | \$34,100 | 20.7% | \$43,531 | |
| Separate Facilities (Variable) | 169,734 | 79.5% | 134,989 | 20.5% | 34,745 | | | |
| PNM Solar Rebate Revenue | (24,528) | 79.5% | (19,507) | 20.5% | (5,021) | | | |
| 50/50 BS2A Solar Savings | (75,000) | 79.5% | (59,647) | 20.5% | (15,353) | | | |
| Total Variable Costs | \$280,317 | | \$188,315 | | \$48,471 | | \$43,531 | |
| TOTAL OPERATING FUND | \$1,919,659 | | \$1,344,248 | | \$346,000 | | \$229,410 | |
| | 100.0% | | 70.0% | | 18.0% | | 12.0% | |
| Production (Shared Facilities) | \$1,107,287 | | \$698,172 | | \$179,705 | | \$229,410 | [1] |
| Treatment (Separate Facilities) | 812,372 | | 646,076 | | 166,296 | | 0 | [1] |
| TOTAL OPERATING FUND | \$1,919,659 | | \$1,344,248 | | \$346,000 | | \$229,410 | [1] |
| Major Repair & Replacement Fund | 156,494 | | 109,586 | | 28,207 | | 18,702 | [2] |
| Total Budget Request FY 2019 | \$2,076,153 | | \$1,453,834 | | \$374,207 | | \$248,112 | |
| TOTAL OPERATING FUND | \$1,919,659 | | \$1,344,248 | | \$346,000 | | \$229,410 | [1] |
| BDD to Budget Request Difference from FY 2019 to FY 2018 | 15,639 | | 10,951 | | 2,819 | | 1,869 | [3] |
| Major Repair & Replacement Fund FY 2018 | 156,494 | | 109,586 | | 28,207 | | 18,702 | [3] |
| Total Budget Request FY 2018 | \$2,091,792 | | \$1,464,785 | | \$377,026 | | \$249,981 | [3] |
| | 100.0% | | 70.0% | | 18.0% | | 12.0% | |

Notes:

[1] From BDD cost report for FY 2019 provided by BDD. See Exhibit 7A.

[2] Total from County Budget Request sheet for FY 2018 for Repair & Replacement.

[3] Total from County Budget Request sheet for FY 2018 of \$2,091,792.

Santa Fe County
Water Rate Study
Exhibit 8
Commodity Allocation Factor

| | FY 2019 Consumption (1,000 Gallons) [1] | 8.9% Losses [2] | Net Water Delivered (Flow + Losses) | All Avg. Day (MGD) [3] | All % of Total | Potable Avg. Day (MGD) [3] | Potable % of Total | Retail Avg. Day (MGD) [3] | Retail % of Total |
|------------------------------------|---|--------------------|---|------------------------------|----------------------|----------------------------------|--------------------------|---------------------------------|-------------------------|
| Retail | | | | | | | | | |
| Residential | 201,410 | 17,925 | 219,335 | 0.60 | 44.4% | 0.60 | 55.4% | 0.60 | 88.4% |
| Non-Residential | 26,536 | 2,362 | 28,898 | 0.08 | 5.9% | 0.08 | 7.3% | 0.08 | 11.6% |
| Total Retail | 227,946 | 20,287 | 248,233 | 0.68 | 50.3% | 0.68 | 62.7% | 0.68 | 100.0% |
| Wholesale - | | | | | | | | | |
| Domestic Association | 823 | 0 | 823 | 0.00 | 0.2% | 0.00 | 0.2% | ---- | ---- |
| State Penitentiary | 53,200 | 0 | 53,200 | 0.15 | 10.8% | 0.15 | 13.4% | ---- | ---- |
| Wholesale Potable | 93,792 | 0 | 93,792 | 0.26 | 19.0% | 0.26 | 23.7% | ---- | ---- |
| Wholesale Raw [4] | 97,755 | 0 | 97,755 | 0.27 | 19.8% | ----- | ----- | ----- | ----- |
| Total Wholesale | 245,570 | 0 | 245,570 | 0.67 | 49.7% | 0.40 | 37.3% | ---- | ---- |
| Total Sales | 473,516 | 20,287 | 493,803 | 1.35 | 100.0% | 1.09 | 100.0% | 0.68 | 100.0% |
| Water Production [5] | | | | 1.36 | | | | | |
| COMMODITY ALLOCATION FACTOR | | | | | (COM-1) | | (COM-2) | | (COM-3) |

Notes

- [1] - FY 2019 based on FY 2017 actual data plus growth assumptions for FY 2018, FY 2019. See Exhibit 2 and 5.
[2] - Losses based on County input from produced to sold.
[3] - Flow plus losses converted to million gallons per day. (1,000 Gallons X 1,000)/1000000/365 = MGD)
[4] - Wholesale raw water is a take or pay contract at 300 AF converted to 1,000 gallon is 97,755.
[5] - Daily average consumption based on production report for FY 2017 plus growth for FY 2018, FY 2019.

Santa Fe County
 Water Rate Study
 Exhibit 9
 Capacity Allocation Factor

| | FY 2019 Average Day Consumption (MGD) | Peaking Factors [1] | All Peak Day Use (MGD) | All % of Total | Potable Peak Day Use (MGD) | Potable % of Total | Retail Peak Day Use (MGD) | Retail % of Total |
|-----------------------------------|--|------------------------|------------------------------|-------------------|----------------------------------|-----------------------|---------------------------------|----------------------|
| Retail | | | | | | | | |
| Residential | 0.60 | 1.23 | 0.74 | 27.1% | 0.74 | 44.2% | 0.74 | 81.7% |
| Non-Residential | 0.08 | 2.09 | 0.17 | 6.1% | 0.17 | 9.9% | 0.17 | 18.3% |
| Total Retail | 0.68 | | 0.90 | 33.2% | 0.90 | 54.2% | 0.90 | 100.0% |
| Wholesale - | | | | | | | | |
| Domestic Association | 0.00 | 1.55 | 0.00 | 0.1% | 0.00 | 0.2% | | |
| State Penitentiary | 0.15 | 1.55 | 0.23 | 8.3% | 0.23 | 13.6% | | |
| Wholesale Potable | 0.26 | 2.08 | 0.53 | 19.7% | 0.53 | 32.1% | | |
| Wholesale Raw | 0.27 | 3.93 | 1.05 | 38.7% | | | | |
| Total Wholesale | 0.67 | | 1.82 | 66.8% | 0.76 | 45.8% | 0.00 | 0.0% |
| Total | 1.35 | | 2.72 | 100.0% | 1.67 | 100.0% | 0.90 | 100.0% |
| Historical Peak Day [2] | | | 2.58 | | | | | |
| CAPACITY ALLOCATION FACTOR | | | | (CAP-1) | | (CAP-2) | | (CAP-3) |

Notes

[1] - Based on calculated Peak to Average Month for FY 2017. See Exhibit 5.

[2] - Water System Peak Day Data Provided by City. Peak day May, 16, 2017 at 2.544 MG Finished Water. Plus average growth FY 2018, FY 2019.

Santa Fe County
Water Rate Study
Exhibit 10A
Customer Allocation Factors

| | <i>FY 2019 - Actual Customer</i> | | <i>FY 2019 - Weighted Meter Services</i> | |
|-----------------------------------|----------------------------------|-------------------|--|-------------------|
| | Number of Connections [1] | % of Total | Equivalent Meter [2] | % of Total |
| Retail | | | | |
| Residential | 3,498 | 97.8% | 3,789 | 82.5% |
| Non-Residential | 70 | 2.0% | 530 | 11.5% |
| | ----- | ----- | ----- | ----- |
| Total Retail | 3,568 | 99.7% | 4,319 | 94.1% |
| Wholesale - | | | | |
| Domestic Association | 3 | 0.1% | 63 | 1.4% |
| State Penitentiary | 1 | 0.0% | 80 | 1.7% |
| Wholesale Potable | 4 | 0.1% | 70 | 1.5% |
| Wholesale Raw | 2 | 0.1% | 58 | 1.3% |
| | ----- | ----- | ----- | ----- |
| Total Wholesale | 10 | 0.3% | 271 | 5.9% |
| Total | 3,578 | 100.0% | 4,590 | 100.0% |
| CUSTOMER ALLOCATION FACTOR | | (AC) | | (WS) |

Notes

[1] - FY 2019 based on actual FY 2017 calculated plus growth assumptions for FY 2018, FY 2019. See Exhibit 2 and 5.

[2] Based on number of equivalent meters using AWWA meter equivalency factors. See Exhibit 10B.

Santa Fe County
Water Rate Study
Exhibit 10B

Development Of Equivalent Meter Allocation Factor

| | FY 2017 [1] | | | | | | | | | | | Total |
|----------------------|------------------|-----------|------------|-----------|-----------|----------|----------|----------|----------|----------|----------|--------------|
| | Number of Meters | | | | | | | | | | | |
| | 5/8" | 3/4" | 1" | 1.5" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | |
| Residential | 3,247 | 16 | 179 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3,443 |
| Non-Residential | 11 | 0 | 16 | 14 | 22 | 3 | 1 | 0 | 2 | 0 | 0 | 69 |
| Domestic Association | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| State Penitentiary | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Wholesale - Potable | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| Wholesale - Raw | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Total Meters | 3,258 | 16 | 195 | 16 | 25 | 6 | 2 | 2 | 3 | 0 | 0 | 3,522 |

| | FY 2019 [2] | | | | | | | | | | | Total |
|----------------------|------------------|-----------|------------|-----------|-----------|----------|----------|----------|----------|----------|----------|--------------|
| | Number of Meters | | | | | | | | | | | |
| | 5/8" | 3/4" | 1" | 1.5" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | |
| Residential | 3,299 | 16 | 182 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3,498 |
| Non-Residential | 12 | 0 | 16 | 14 | 23 | 3 | 1 | 0 | 2 | 0 | 0 | 70 |
| Domestic Association | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| State Penitentiary | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Wholesale - Potable | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| Wholesale - Raw | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Total Meters | 3,310 | 16 | 198 | 16 | 25 | 6 | 2 | 2 | 3 | 0 | 0 | 3,578 |

AWWA Meter Equivalencies **1.00 1.50 2.50 5.00 8.00 15.00 25.00 50.00 80.00 115.00 168.75**

| | Equivalent Meters | | | | | | | | | | | Total |
|--------------------------------|-------------------|-----------|------------|-----------|------------|-----------|-----------|------------|------------|----------|----------|--------------|
| | 5/8" | 3/4" | 1" | 1.5" | 2" | 3" | 4" | 6" | 8" | 10" | 12" | |
| | Residential | 3,299 | 24 | 454 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | |
| Non-Residential | 12 | 0 | 40 | 69 | 180 | 41 | 25 | 0 | 163 | 0 | 0 | 530 |
| Domestic Association | 0 | 0 | 0 | 5 | 8 | 0 | 0 | 50 | 0 | 0 | 0 | 63 |
| State Penitentiary | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 0 | 80 |
| Wholesale - Potable | 0 | 0 | 0 | 0 | 0 | 45 | 25 | 0 | 0 | 0 | 0 | 70 |
| Wholesale - Raw | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 50 | 0 | 0 | 0 | 58 |
| Total Equivalent Meters | 3,310 | 24 | 494 | 80 | 203 | 86 | 50 | 100 | 243 | 0 | 0 | 4,590 |

Notes

[1] Based on customer meter size from billing data for FY 2017. See Exhibit 5.
[2] FY 2019 based on FY 2017 actual billing data plus growth for FY 2018, FY 2019. See Exhibit 2 and 5.

Santa Fe County
 Water Rate Study
 Exhibit 11
 Public Fire Allocation Factor

| | FY 2019 Number of Customers | Fire Prot. Requirements (gals/min) [1] | Duration (minutes) | Total FP Requirements (1,000 g/min) | % of Total |
|---|-----------------------------------|--|-----------------------|---|---------------|
| Retail | | | | | |
| Residential | 3,498 | 1,500 | 120 | 629,641 | 94.3% |
| Non-Residential | 70 | 3,000 | 180 | 37,719 | 5.7% |
| | ----- | | | ----- | ----- |
| Total Retail | 3,568 | | | 667,360 | 100.0% |
| PUBLIC FIRE PROTECTION ALLOCATION FACTOR | | | | | (FP) |
| Notes | | | | | |

[1] Based on County specific fire flow requirements from Santa Fe County Infrastructure Buildout Analysis March 2017, page 62.

**Santa Fe County
Water Rate Study
Exhibit 12
Revenue Related Allocation Factor**

| | Projected FY 2019 | % of Total |
|--------------------------------------|------------------------------|-----------------------|
| Retail | | |
| Residential | \$2,256,414 | 58.7% |
| Non-Residential | 503,936 | 13.1% |
| | ----- | ----- |
| Total Retail | \$2,760,350 | 71.9% |
| Wholesale - | | |
| Domestic Association | \$18,364 | 0.5% |
| State Penitentiary | 189,779 | 4.9% |
| Wholesale Potable | 533,535 | 13.9% |
| Wholesale Raw | 339,104 | 8.8% |
| | ----- | ----- |
| Total Wholesale | \$1,080,782 | 28.1% |
| Total Sales | \$3,841,132 | 100.0% |
| REVENUE ALLOCATION FACTOR | | (RR) |

| FY 2019 | All Commodity (COM-1) | Potable Commodity (COM-2) | Retail Commodity (COM-3) | All Capacity (CAP-1) | Potable Capacity (CAP-2) | Retail Capacity (CAP-3) | Customer Related | | | Revenue Related (RR) | Direct Assign. (DA) | Basis of Classification |
|---|-----------------------|---------------------------|--------------------------|----------------------|--------------------------|-------------------------|----------------------|------------------------------|-----------------------------|----------------------|---------------------|-------------------------|
| | | | | | | | Actual Customer (AC) | Equivalent Meter & Svs (EMS) | Public Fire Protection (FP) | | | |
| Buckman Direct Diversion Project (BDD) | | | | | | | | | | | | |
| Production | \$1,263,781 | \$665,633 | \$0 | \$598,148 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 52.7% COM-1 47.3% CAP-1 |
| Treatment | 812,372 | 0 | 812,372 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-2 |
| Total Buckman Direct Diversion Project (BDD) | \$2,076,153 | \$665,633 | \$812,372 | \$598,148 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Salary & Wages | | | | | | | | | | | | |
| Exempt Employees | \$82,742 | \$0 | \$0 | \$82,742 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| Classified Employees | 754,372 | 0 | 0 | 754,372 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Overtime | 20,800 | 0 | 0 | 20,800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Term Employs | 34,013 | 0 | 0 | 34,013 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Other Wages | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Salary & Wages | \$891,928 | \$0 | \$0 | \$891,928 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Employee Benefits | | | | | | | | | | | | |
| FICA - Regular | \$54,768 | \$0 | \$0 | \$54,768 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| FICA - Medicare | 12,809 | 0 | 0 | 12,809 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Retirement Contributions | 185,812 | 0 | 0 | 185,812 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Health Care | 153,773 | 0 | 0 | 153,773 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Retirement Health Care | 17,255 | 0 | 0 | 17,255 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Workers Comp (Assessment) | 208 | 0 | 0 | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Employee Benefits | \$424,625 | \$0 | \$0 | \$424,625 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Travel | | | | | | | | | | | | |
| In-State Travel | \$4,720 | \$0 | \$0 | \$4,720 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| Out-of-State Travel | 3,451 | 0 | 0 | 3,451 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Travel | \$8,171 | \$0 | \$0 | \$8,171 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Vehicle Expenses | | | | | | | | | | | | |
| Vehicle Fuel | \$25,375 | \$0 | \$0 | \$25,375 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| Vehicle Maintenance | 10,383 | 0 | 0 | 10,383 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Vehicle Expenses | \$35,758 | \$0 | \$0 | \$35,758 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Maintenance | | | | | | | | | | | | |
| Building/Structure | \$7,105 | \$0 | \$0 | \$7,105 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| Equipment | 10,150 | 0 | 0 | 10,150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Infrastructure | 128,905 | 0 | 0 | 128,905 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Laundry & Dry Cleaning | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Pest Control | 812 | 0 | 0 | 812 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Maintenance | \$146,972 | \$0 | \$0 | \$146,972 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Services | | | | | | | | | | | | |
| Audit Contract | \$5,526 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,526 | \$0 | \$0 | \$0 | 100.0% EMS |
| Contractual/Professional | 200,000 | 0 | 0 | 0 | 0 | 0 | 0 | 200,000 | 0 | 0 | 0 | 100.0% EMS |
| Software License/Maintenance | 21,851 | 0 | 0 | 0 | 0 | 0 | 0 | 21,851 | 0 | 0 | 0 | 100.0% EMS |
| Other Services | 13,780 | 0 | 0 | 0 | 0 | 0 | 0 | 13,780 | 0 | 0 | 0 | 100.0% EMS |
| Total Services | \$241,156 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$241,156 | \$0 | \$0 | \$0 | |

Functionalization and Classification of the Revenue Requirement

| | FY 2019 | All Commodity (COM-1) | Potable Commodity (COM-2) | Retail Commodity (COM-3) | All Capacity (CAP-1) | Potable Capacity (CAP-2) | Retail Capacity (CAP-3) | Customer Related | | Public Fire Protection (FP) | Revenue Related (RR) | Direct Assign. (DA) | Basis of Classification |
|--|--------------------|-----------------------|---------------------------|--------------------------|----------------------|--------------------------|-------------------------|----------------------|------------------------------|-----------------------------|----------------------|---------------------|-------------------------|
| | | | | | | | | Actual Customer (AC) | Equivalent Meter & Svs (EMS) | | | | |
| Supplies | | | | | | | | | | | | | |
| Safety Equipment | \$5,125 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,125 | \$0 | \$0 | \$0 | 100.0% EMS |
| Uniform Expense | 2,563 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,563 | 0 | 0 | 0 | 100.0% EMS |
| Non-Capital Med & Lab | 4,100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,100 | 0 | 0 | 0 | 100.0% EMS |
| Operational Supplies | 29,229 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29,229 | 0 | 0 | 0 | 100.0% EMS |
| Educational Supplies | 513 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 513 | 0 | 0 | 0 | 100.0% EMS |
| Total Supplies | \$41,529 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$41,529 | \$0 | \$0 | \$0 | |
| Other Operating Costs | | | | | | | | | | | | | |
| Rent of Equip/Machinery | \$2,070 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,070 | \$0 | \$0 | \$0 | 100.0% EMS |
| Telephone | 3,636 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,636 | 0 | 0 | 0 | 100.0% EMS |
| Electricity | 7,500 | 0 | 3,950 | 0 | 0 | 3,550 | 0 | 0 | 0 | 0 | 0 | 0 | 52.7% COM-1 47.3% CAP-1 |
| Seminars & Workshops | 8,430 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,430 | 0 | 0 | 0 | 100.0% EMS |
| Postage & Mail Service | 2,050 | 0 | 0 | 0 | 0 | 0 | 0 | 2,050 | 0 | 0 | 0 | 0 | 100.0% AC |
| Printing/Publishing/Ads | 3,075 | 0 | 0 | 0 | 0 | 0 | 0 | 3,075 | 0 | 0 | 0 | 0 | 100.0% AC |
| Subscription & Dues | 5,125 | 0 | 0 | 0 | 0 | 0 | 0 | 5,125 | 0 | 0 | 0 | 0 | 100.0% AC |
| Miscellaneous | 476,656 | 0 | 251,055 | 0 | 0 | 225,601 | 0 | 0 | 0 | 0 | 0 | 0 | 52.7% COM-1 47.3% CAP-1 |
| Total Other Operating Costs | \$508,542 | \$0 | \$255,005 | \$0 | \$0 | \$229,151 | \$0 | \$10,250 | \$14,135 | \$0 | \$0 | \$0 | |
| Insurance & Deductibles | | | | | | | | | | | | | |
| Brokerage & Policy Fees | \$451 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$451 | \$0 | \$0 | \$0 | 100.0% EMS |
| Workers Comp Premiums | 15,573 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,573 | 0 | 0 | 0 | 100.0% EMS |
| Auto Insurance Premiums | 842 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 842 | 0 | 0 | 0 | 100.0% EMS |
| Ge. Liability & Umbrella Prem. | 13,028 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,028 | 0 | 0 | 0 | 100.0% EMS |
| Judgments & Settlements | 25,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25,000 | 0 | 0 | 0 | 100.0% EMS |
| Auto Insurance Deductible | 15,150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,150 | 0 | 0 | 0 | 100.0% EMS |
| Total Insurance & Deductibles | \$70,044 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$70,044 | \$0 | \$0 | \$0 | |
| General Capital Purchases | | | | | | | | | | | | | |
| Equipment & Machinery | \$25,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$25,000 | \$0 | \$0 | \$0 | 100.0% EMS |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% EMS |
| Roadways (Bridge/Culvert) | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 100.0% EMS |
| Inventory Computer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% EMS |
| Inventory Exempt | 4,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,000 | 0 | 0 | 0 | 100.0% EMS |
| Total General Capital Purchases | \$49,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$49,000 | \$0 | \$0 | \$0 | |
| Total Operations & Maintenance | \$4,493,877 | \$665,633 | \$1,067,377 | \$1,507,454 | \$598,148 | \$229,151 | \$0 | \$10,250 | \$415,864 | \$0 | \$0 | \$0 | |
| % of Total Operations & Maintenance | 100.0% | 14.8% | 23.8% | 33.5% | 13.3% | 5.1% | 0.0% | 0.2% | 9.3% | 0.0% | 0.0% | 0.0% | |
| | \$2,417,724 | | | | | | | | | | | | |
| Capital Improvements from Rates (See Exhibit 4) | \$1,000,000 | \$148,120 | \$237,518 | \$335,446 | \$133,103 | \$50,992 | \$0 | \$2,281 | \$92,540 | \$0 | \$0 | \$0 | As % of O&M |

Functionalization and Classification of the Revenue Requirement

| | FY 2019 | All Commodity (COM-1) | Potable Commodity (COM-2) | Retail Commodity (COM-3) | All Capacity (CAP-1) | Potable Capacity (CAP-2) | Retail Capacity (CAP-3) | Customer Related | | Public Fire Protection (FP) | Revenue Related (RR) | Direct Assign. (DA) | Basis of Classification |
|---|----------------------|-----------------------|---------------------------|--------------------------|----------------------|--------------------------|-------------------------|----------------------|------------------------------|-----------------------------|----------------------|---------------------|-------------------------|
| | | | | | | | | Actual Customer (AC) | Equivalent Meter & Svs (EMS) | | | | |
| Transfers | | | | | | | | | | | | | |
| Transfers - Cost Allocation | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | As % of O&M |
| To/(From) Operating Reserve | (1,130,863) | (\$167,503) | (\$268,600) | (\$379,343) | (\$150,521) | (\$57,665) | \$0 | (\$2,579) | (\$104,650) | \$0 | \$0 | \$0 | As % of O&M |
| Total Transfers | (\$1,130,863) | (\$167,503) | (\$268,600) | (\$379,343) | (\$150,521) | (\$57,665) | \$0 | (\$2,579) | (\$104,650) | \$0 | \$0 | \$0 | |
| Total Revenue Requirement | \$4,363,014 | \$646,250 | \$1,036,295 | \$1,463,556 | \$580,729 | \$222,478 | \$0 | \$9,952 | \$403,754 | \$0 | \$0 | \$0 | |
| Less: Non-Operating Revenues | | | | | | | | | | | | | |
| Inspection Review Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% COM-3 |
| Standby Charges | 6,500 | 0 | 0 | 6,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Promissory Notes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Miscellaneous | 12,360 | 0 | 0 | 12,360 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Penalties | 4,120 | 0 | 0 | 4,120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Meter Opt-Fee | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Water for Resale | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Meter Installation Charge | 32,960 | 0 | 0 | 32,960 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Line and Hydrants | 37,452 | 0 | 0 | 37,452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Bulk Water | 121,200 | 0 | 0 | 121,200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Contra - Govt'l GRT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% COM-3 |
| Total Non-Operating Revenues | \$214,592 | \$0 | \$0 | \$214,592 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Net Revenue Requirement | \$4,148,423 | \$646,250 | \$1,036,295 | \$1,248,964 | \$580,729 | \$222,478 | \$0 | \$9,952 | \$403,754 | \$0 | \$0 | \$0 | |
| Total Revenue Requirement Percentage | 100.0% | 15.6% | 25.0% | 30.1% | 14.0% | 5.4% | 0.0% | 0.2% | 9.7% | 0.0% | 0.0% | 0.0% | |

**Santa Fe County
Water Rate Study
Exhibit 14
Distribution Storage**

Fire Protection

| | Max Gal | Max Minutes | Total |
|----------------------------|----------------|--------------------|--------------|
| Fire Flow Requirements [1] | 3,000 | 180 | 540,000 |
| Storage Capacity - [2] | | 1,508,000 | 1,508,000 |
| % Public Fire Protection | | | 35.8% |
| % Capacity | | | 64.2% |

[1] Fire flow information from March 2017 Santa Fe County Infrastructure Buildout Analysis, page 62.

[2] Rancho Viejo Tank at 1.5MG and 8,000 gallon tank for west sector.

Source of Supply

| Capacity/Commodity | | | |
|-----------------------|------|--------------|-------|
| Average Day (MGD) [1] | 1.36 | COMM | 52.7% |
| Peak Day (MGD) [2] | 2.58 | (1-COMM)=CAP | 47.3% |

[1] - Daily average consumption based on production reports.

[2] - Water System Peak Day Data Provided by City production reports. Peak day May, 16, 2017 at 2.544 MG Finished Water.

Distribution Main Analysis

| Main Size | Length (ft) | Replcmt \$ | Total |
|-------------------|--------------------|-------------------|---------------------|
| 3" of Less | 7,126 | \$25.00 | \$178,150 |
| 4" | 19,510 | 45.00 | 877,950 |
| 6" | 55,047 | 60.00 | 3,302,820 |
| 8" | 314,162 | 85.00 | 26,703,770 |
| 10" | 18,138 | 110.00 | 1,995,180 |
| 12" | 80,470 | 140.00 | 11,265,800 |
| 14" | 9,724 | 160.00 | 1,555,840 |
| 16" | 100,604 | 175.00 | 17,605,700 |
| 18" | 3,255 | 200.00 | 651,000 |
| 18" | 0 | 200.00 | 0 |
| 24" | 0 | 225.00 | 0 |
| Total | 608,036 | | \$64,136,210 |

Customer %

(1) Total pipe @ 4" Equivalent \$22,687,965
51.0%

Capacity %

(2) Cost for 4" through 8" \$31,062,690
(3) Larger at 12" cost \$9,208,220
1+2-3/4 **39.7%**

Fire Protection

1-comm-cap **9.3%**

Santa Fe County
Water Rate Study
Exhibit 15
Allocation of Revenue Requirement

| | FY 2019 | Residential | Non-Residential | Domestic Assoc. | State Penitentiary | Wholesale - Potable | Wholesale - Raw | Factor |
|--------------------------------|--------------------|--------------------|------------------|-----------------|--------------------|---------------------|------------------|--------|
| Commodity | | | | | | | | |
| All | \$646,250 | \$287,049 | \$37,819 | \$1,077 | \$69,624 | \$122,748 | \$127,934 | COM-1 |
| Potable | 1,036,295 | 573,911 | 75,613 | 2,153 | 139,203 | 245,415 | 0 | COM-2 |
| Retail | 1,248,964 | 1,103,569 | 145,396 | 0 | 0 | 0 | 0 | COM-3 |
| | \$2,931,509 | \$1,964,528 | \$258,828 | \$3,230 | \$208,827 | \$368,163 | \$127,934 | |
| Capacity | | | | | | | | |
| All | \$580,729 | \$157,476 | \$35,313 | \$746 | \$48,250 | \$114,151 | \$224,793 | CAP-1 |
| Potable | 222,478 | 98,430 | 22,072 | 466 | 30,159 | 71,350 | 0 | CAP-2 |
| Retail | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CAP-3 |
| | \$803,208 | \$255,906 | \$57,385 | \$1,213 | \$78,408 | \$185,502 | \$224,793 | |
| Customer | | | | | | | | |
| Actual Customer | \$9,952 | \$9,729 | \$194 | \$8 | \$3 | \$11 | \$6 | AC |
| Equivalent Meter & Svs | 403,754 | 333,291 | 46,624 | 5,542 | 7,037 | 6,158 | 5,102 | EMS |
| Total Customer | \$413,706 | \$343,020 | \$46,818 | \$5,550 | \$7,040 | \$6,169 | \$5,108 | |
| Public Fire Protection | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | FP |
| Revenue Related | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | RR |
| Direct Assign. | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | DA |
| Net Revenue Requirement | \$4,148,423 | \$2,563,454 | \$363,032 | \$9,993 | \$294,275 | \$559,833 | \$357,835 | |
| Percentage of Total | 100.0% | 61.8% | 8.8% | 0.2% | 7.1% | 13.5% | 8.6% | |

Santa Fe County
 Water Rate Study
 Exhibit 16
 Summary of Cost of Service

| | FY 2019 | Retail | Wholesale |
|----------------------------|--------------------|--------------------|--------------------|
| Revenues at Present Rates | \$3,841,132 | \$2,760,350 | \$1,080,782 |
| Net Revenue Requirement | \$4,148,423 | \$2,926,486 | \$1,221,937 |
| <i>Bal/(Def) of Funds</i> | (\$307,291) | (\$166,136) | (\$141,154) |
| Required % Change in Rates | 8.0% | 6.0% | 13.1% |

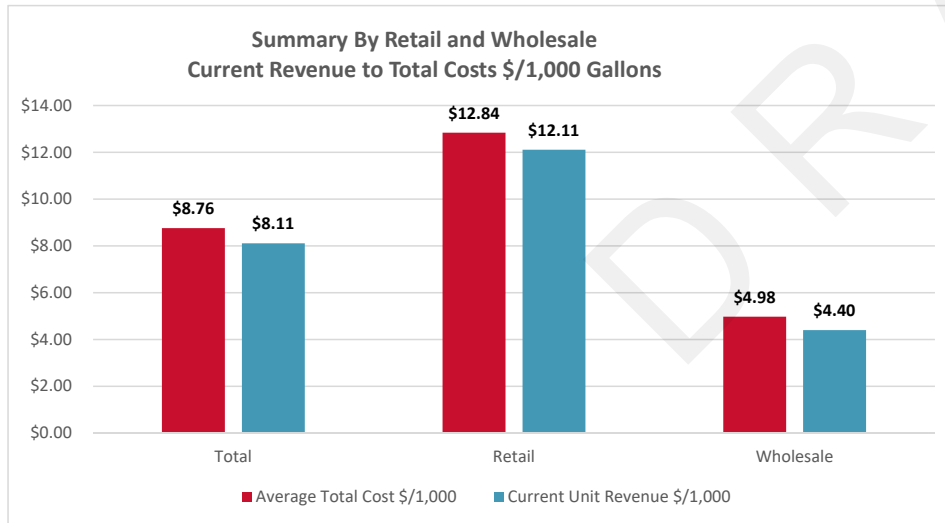
DRAFT

Santa Fe County
 Water Rate Study
 Exhibit 17
 Summary of Unit Costs

| | FY 2019 | Retail | Wholesale |
|---|---------------|----------------|---------------|
| Consumption Related | | | |
| - \$/1,000 Gals | \$6.19 | \$9.75 | \$2.88 |
| - \$/1,000 Gals | 1.70 | 1.37 | 2.00 |
| Total | \$7.89 | \$11.13 | \$4.88 |
| Customer Related | | | |
| Customer- \$/Equiv. Meter/Month | \$7.51 | \$7.52 | \$7.34 |
| Average Total Unit Costs (\$/1,000 Gals) | \$8.76 | \$12.84 | \$4.98 |
| Current Unit Revenue (\$/1,000 Gals) | \$8.11 | \$12.11 | \$4.40 |

Basic Data

| | | | |
|--------------------------|---------|---------|---------|
| Consumption (1,000 Gals) | 473,516 | 227,946 | 245,570 |
| # of Accounts | 3,578 | 3,568 | 10 |
| 5/8" Equivalent Meters | 4,590 | 4,319 | 271 |



Santa Fe County
Water Rate Study
Exhibit 18
Summary of 2017 County BDD Costs

| FY17 Co Water Order, Annual (af) | AF | Kgal | Separate | Shared |
|----------------------------------|--------------|----------------|----------|---------------|
| Potable, Non-Wholesale | 913 | 297,501 | | 61.3% |
| Potable, Wholesale | 274 | 90,105 | | 18.6% |
| Total Potable | 1,187 | 387,606 | 100.0% | 79.9% |
| Raw | 300 | 97,755 | - | 20.1% |
| Total | 1,487 | 485,361 | | 100.0% |

| Wholesale Costs for FY 2016/2017 | County Total Expenses \$ | Potable Expense \$ | % Potable | Raw Expense \$ | % Raw |
|---|--------------------------|--------------------|-----------|------------------|-------|
| BDD - Production | | | | | |
| Production - Fixed | \$481,792 | \$384,756 | 79.9% | \$97,036 | 20.1% |
| Production - Variable | 216,200 | 172,656 | 79.9% | 43,544 | 20.1% |
| Production Project Wide - Fixed | 178,707 | 142,715 | 79.9% | 35,993 | 20.1% |
| Production Repair & Replacement Fund | 102,820 | 82,111 | 79.9% | 20,709 | 20.1% |
| Production Contingency Fund | 275,000 | 219,613 | 79.9% | 55,387 | 20.1% |
| Total Production | \$1,254,519 | \$1,001,850 | | \$252,669 | |
| BDD - Treatment | | | | | |
| Treatment - Fixed | \$459,981 | \$459,981 | 100.0% | | |
| Treatment - Variable | 73,477 | 73,477 | 100.0% | | |
| Treatment Project Wide - Fixed | 516,646 | 516,646 | 100.0% | | |
| Total Treatment | \$1,050,104 | \$1,050,104 | | | |
| Total Production & Treatment | \$2,304,623 | \$2,051,954 | | \$252,669 | |
| Other | | | | | |
| County Wholesale from City | \$476,656 | \$476,656 | | | |
| CIP - Pipeline to Improve System Redundancy | \$0 | \$0 | | | |
| Total Other | \$476,656 | \$476,656 | | | |
| Total Costs | \$2,781,279 | \$2,528,610 | | | |
| Total Gallons in 1,000 gallons | | 387,606 | | | |
| \$ Cost per 1,000 gallons | | \$6.52 | | | |
| Present Rate per 1,000 gallons Wholesale 1 - Potable Water | | \$5.47 | | | |

Santa Fe County
Water Rate Study
Exhibit 19A
Summary of Water Rate Designs

| | Present | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--------------------------------------|----------------------|---------------------|----------|----------|----------|----------|----------|
| RESIDENTIAL WATER SERVICE | | | | | | | |
| Monthly Customer Service Fee | \$/Meter | | | | | | |
| 5/8" | \$14.50 | | \$22.83 | \$22.83 | \$22.83 | \$22.83 | \$22.83 |
| 3/4" | 15.68 | | 24.68 | 24.68 | 24.68 | 24.68 | 24.68 |
| 1" | 17.99 | | 28.32 | 28.32 | 28.32 | 28.32 | 28.32 |
| 1-1/2" | 38.99 | | 61.38 | 61.38 | 61.38 | 61.38 | 61.38 |
| 2" | 40.42 | | 63.63 | 63.63 | 63.63 | 63.63 | 63.63 |
| 3" | 61.08 | | 96.15 | 96.15 | 96.15 | 96.15 | 96.15 |
| Water Usage Charge per Month | \$/1,000 gals | | | | | | |
| First 5,000 gallons | \$6.12 | First 4,000 gallons | \$6.43 | \$6.75 | \$7.08 | \$7.44 | \$7.81 |
| Next 5,000 Gallons | 8.43 | Next 4,000 gallons | 8.85 | 9.29 | 9.76 | 10.25 | 10.76 |
| Next 5,000 Gallons | 13.02 | Next 4,000 gallons | 13.67 | 14.35 | 15.07 | 15.83 | 16.62 |
| Above 15,000 Gallons | 17.62 | Next 4,000 gallons | 18.50 | 19.43 | 20.40 | 21.42 | 22.49 |
| | | Over 16,000 gallons | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |
| NON-RESIDENTIAL WATER SERVICE | | | | | | | |
| 5/8" | \$30.68 | | \$48.30 | \$48.30 | \$48.30 | \$48.30 | \$48.30 |
| 3/4" | 43.59 | | 68.62 | 68.62 | 68.62 | 68.62 | 68.62 |
| 1" | 69.42 | | 109.28 | 109.28 | 109.28 | 109.28 | 109.28 |
| 1-1/2" | 133.99 | | 210.93 | 210.93 | 210.93 | 210.93 | 210.93 |
| 2" | 211.46 | | 332.89 | 332.89 | 332.89 | 332.89 | 332.89 |
| 3" | 407.77 | | 641.93 | 641.93 | 641.93 | 641.93 | 641.93 |
| 4" | 484.45 | | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Water Usage Charge per Month | \$/1,000 gals | | | | | | |
| First 5,000 gallons | \$5.91 | First 4,000 gallons | \$6.21 | \$6.52 | \$6.84 | \$7.18 | \$7.54 |
| Next 5,000 Gallons | 8.16 | Next 4,000 gallons | 8.57 | 9.00 | 9.45 | 9.92 | 10.41 |
| Next 5,000 Gallons | 12.65 | Next 4,000 gallons | 13.28 | 13.95 | 14.64 | 15.38 | 16.14 |
| Above 15,000 Gallons | 17.07 | Next 4,000 gallons | 17.92 | 18.82 | 19.76 | 20.75 | 21.79 |
| | | Over 16,000 gallons | 22.81 | 23.95 | 25.14 | 26.40 | 27.72 |

Santa Fe County
 Water Rate Study
 Exhibit 19B
 Summary of Water Rate Design

| High Volume Rate Schedule | Present | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|----------|----------|----------|----------|----------|----------|
| Monthly Customer Service Fee \$/Meter | | | | | | |
| [1] | | | | | | |
| 3" | \$407.77 | \$641.93 | \$641.93 | \$641.93 | \$641.93 | \$641.93 |
| 4" | 484.45 | 762.64 | 762.64 | 762.64 | 762.64 | 762.64 |
| 6" | 964.05 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 | 1,517.64 |
| 8" | 1,539.58 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 | 2,423.67 |
| 10" | 2,138.00 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 | 3,365.72 |
| Water Usage Charge per Month \$/1,000 Gallons | | | | | | |
| Domestic Association | \$3.22 | \$6.54 | \$6.74 | \$6.93 | \$7.14 | \$7.14 |
| Wholesale 1- Potable Water | 5.47 | 6.54 | 6.74 | 6.93 | 7.14 | 7.14 |
| Wholesale 2 - Non-Potable Water | 4.01 | 4.32 | 4.45 | 4.58 | 4.72 | 4.72 |

Santa Fe County
Water Rate Study
Exhibit 20
Water Rate Design Revenue Check

| Growth | | 0.6% | | 1.0% | | 1.0% | | 1.0% | | 1.0% | | 1.0% | | | |
|--------------------------------------|----------|--------------|---------------|---------------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|-----------|
| Rate Component | # Meters | Present Rate | Total Revenue | 2019 Rate | 2019 Revenue | 2020 Rate | 2020 Revenue | 2021 Rate | 2021 Revenue | 2022 Rate | 2022 Revenue | 2023 Rate | 2023 Revenue | | |
| Residential | | | | | | | | | | | | | | | |
| 5/8" | 3,266 | \$14.50 | \$568,295 | 3,299 | \$22.83 | \$903,718 | \$22.83 | \$921,883 | \$22.83 | \$931,102 | \$22.83 | \$940,413 | \$22.83 | \$949,817 | |
| 3/4" | 16 | 15.68 | 2,950 | 16 | 24.68 | 4,689 | 24.68 | 4,784 | 24.68 | 4,831 | 24.68 | 4,880 | 24.68 | 4,880 | |
| 1" | 180 | 17.99 | 38,838 | 182 | 28.32 | 61,751 | 28.32 | 62,992 | 28.32 | 63,622 | 28.32 | 64,258 | 28.32 | 64,258 | |
| 1-1/2" | 1 | 38.99 | 510 | 1 | 61.38 | 811 | 61.38 | 827 | 61.38 | 835 | 61.38 | 844 | 61.38 | 844 | |
| 2" | 1 | 40.42 | 407 | 1 | 63.63 | 647 | 63.63 | 660 | 63.63 | 666 | 63.63 | 673 | 63.63 | 673 | |
| 3" | 0 | 61.08 | 0 | 0 | 96.15 | 0 | 96.15 | 0 | 96.15 | 0 | 96.15 | 0 | 96.15 | 0 | |
| | 3,464 | | \$610,999 | 3,498 | | \$971,616 | | \$991,145 | | \$1,001,057 | | \$1,011,067 | | \$1,020,471 | |
| First 5,000 gallons | 131,825 | \$6.12 | \$806,770 | First 4,000 gallons | 118,542 | \$6.43 | \$762,223 | \$6.75 | \$816,239 | \$7.08 | \$864,706 | \$7.44 | \$917,761 | \$7.81 | \$963,402 |
| Next 5,000 Gallons | 34,436 | 8.43 | 290,299 | Next 4,000 gallons | 40,046 | 8.85 | 354,406 | 9.29 | 379,504 | 9.76 | 402,691 | 10.25 | 427,137 | 10.76 | 448,390 |
| Next 5,000 Gallons | 12,691 | 13.02 | 165,233 | Next 4,000 gallons | 15,711 | 13.67 | 214,771 | 14.35 | 229,986 | 15.07 | 243,940 | 15.83 | 258,805 | 16.62 | 271,721 |
| Above 15,000 Gallons | 20,475 | 17.62 | 360,772 | Next 4,000 gallons | 8,032 | 18.50 | 148,591 | 19.43 | 159,197 | 20.40 | 168,816 | 21.42 | 179,029 | 22.49 | 187,973 |
| | 199,427 | | \$1,623,074 | Over 16,000 gallons | 19,089 | 22.81 | 435,415 | 23.95 | 466,366 | 25.14 | 494,433 | 26.40 | 524,406 | 27.72 | 550,627 |
| | | | | | 201,419 | \$1,915,406 | | \$2,051,292 | | \$2,174,587 | | \$2,307,139 | | \$2,422,112 | |
| Total Residential Revenue | | | \$2,234,073 | | | \$2,887,021 | | \$3,042,437 | | \$3,175,643 | | \$3,318,206 | | \$3,442,583 | |
| Non-Residential | | | | | | | | | | | | | | | |
| 5/8" | 11 | \$30.68 | \$4,228 | 12 | \$48.30 | \$6,723 | \$48.30 | \$6,859 | \$48.30 | \$6,927 | \$48.30 | \$6,996 | \$48.30 | \$7,066 | |
| 3/4" | 0 | 43.59 | 0 | 0 | 68.62 | 0 | 68.62 | 0 | 68.62 | 0 | 68.62 | 0 | 68.62 | 0 | |
| 1" | 16 | 69.42 | 13,269 | 16 | 109.28 | 21,097 | 109.28 | 21,521 | 109.28 | 21,736 | 109.28 | 21,953 | 109.28 | 21,953 | |
| 1-1/2" | 14 | 133.99 | 22,106 | 14 | 210.93 | 35,148 | 210.93 | 35,855 | 210.93 | 36,213 | 210.93 | 36,575 | 210.93 | 36,575 | |
| 2" | 22 | 211.46 | 56,586 | 23 | 332.89 | 89,971 | 332.89 | 91,779 | 332.89 | 92,697 | 332.89 | 93,624 | 332.89 | 93,624 | |
| 3" | 3 | 407.77 | 13,127 | 3 | 641.93 | 20,872 | 641.93 | 21,291 | 641.93 | 21,504 | 641.93 | 21,719 | 641.93 | 21,719 | |
| 4" | 1 | 484.45 | 5,848 | 1 | 762.64 | 9,299 | 762.64 | 9,486 | 762.64 | 9,580 | 762.64 | 9,676 | 762.64 | 9,676 | |
| 6" | 0 | 964.05 | 0 | 0 | 1,517.64 | 0 | 1,517.64 | 0 | 1,517.64 | 0 | 1,517.64 | 0 | 1,517.64 | 0 | |
| 8" | 2 | 1,539.58 | 37,172 | 2 | 2,423.67 | 59,102 | 2,423.67 | 60,290 | 2,423.67 | 60,893 | 2,423.67 | 61,502 | 2,423.67 | 61,502 | |
| 10" | 0 | 2,138.00 | 0 | 0 | 3,365.72 | 0 | 3,365.72 | 0 | 3,365.72 | 0 | 3,365.72 | 0 | 3,365.72 | 0 | |
| | 69 | | \$152,336 | 70 | | \$242,212 | | \$247,080 | | \$249,551 | | \$252,046 | | \$252,116 | |
| First 5,000 gallons | 7,189 | \$5.91 | \$42,486 | First 4,000 gallons | 6,821 | \$6.21 | \$42,361 | \$6.52 | \$45,369 | \$6.84 | \$48,072 | \$7.18 | \$50,966 | \$7.54 | \$53,521 |
| Next 5,000 Gallons | 1,761 | 8.16 | 14,366 | Next 4,000 gallons | 1,571 | 8.57 | 13,464 | 9.00 | 14,424 | 9.45 | 15,296 | 9.92 | 16,218 | 10.41 | 17,019 |
| Next 5,000 Gallons | 1,354 | 12.65 | 17,129 | Next 4,000 gallons | 1,230 | 13.28 | 16,335 | 13.95 | 17,504 | 14.64 | 18,554 | 15.38 | 19,687 | 16.14 | 20,659 |
| Above 15,000 Gallons | 15,971 | 17.07 | 272,629 | Next 4,000 gallons | 1,020 | 17.92 | 18,270 | 18.82 | 19,573 | 19.76 | 20,756 | 20.75 | 22,014 | 21.79 | 23,117 |
| | 26,275 | | \$346,610 | Over 16,000 gallons | 15,896 | 22.81 | 362,591 | 23.95 | 388,365 | 25.14 | 411,738 | 26.40 | 436,698 | 27.72 | 458,533 |
| | | | | | 26,538 | \$453,021 | | \$485,235 | | \$514,416 | | \$545,582 | | \$572,850 | |
| Total Non-Residential Revenue | | | \$498,947 | | | \$695,232 | | \$732,315 | | \$763,967 | | \$797,629 | | \$824,966 | |
| Total Retail Revenue | | | \$2,733,019 | | | \$3,582,254 | | \$3,774,753 | | \$3,939,611 | | \$4,115,835 | | \$4,267,549 | |

Santa Fe County
Water Rate Study
Exhibit 20
Water Rate Design Revenue Check

| Growth | | 0.6% | | 1.0% | | 1.0% | | 1.0% | | 1.0% | | 1.0% | |
|--|--------------|---------------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|
| Rate Component | # Meters | Present Rate | Total Revenue | 2019 Rate | 2019 Revenue | 2020 Rate | 2020 Revenue | 2021 Rate | 2021 Revenue | 2022 Rate | 2022 Revenue | 2023 Rate | 2023 Revenue |
| Domestic Association | | \$/Meter | | | | | | | | | | | |
| 1-1/2" | 1 | \$133.99 | \$1,608 | \$210.93 | \$2,531 | \$210.93 | \$2,531 | \$210.93 | \$2,531 | \$210.93 | \$2,531 | \$210.93 | \$2,531 |
| 2" | 1 | \$211.46 | 2,538 | 332.89 | \$3,995 | 332.89 | \$3,995 | 332.89 | \$3,995 | 332.89 | \$3,995 | 332.89 | \$3,995 |
| 6" | 1 | \$964.05 | 11,569 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 |
| 8" | 0 | \$1,539.58 | 0 | 2,423.67 | \$0 | 2,423.67 | \$0 | 2,423.67 | \$0 | 2,423.67 | \$0 | 2,423.67 | \$0 |
| | | | \$15,714 | | \$24,738 | | \$24,738 | | \$24,738 | | \$24,738 | | \$24,738 |
| Usage | 823 | \$3.22 | \$2,650 | \$6.54 | \$5,382 | \$6.74 | \$5,546 | \$6.93 | \$5,703 | \$7.14 | \$5,876 | \$7.14 | \$5,876 |
| | Total | | \$18,364 | | \$30,119 | | \$30,284 | | \$30,440 | | \$30,613 | | \$30,613 |
| State Pen. | | \$/Meter | | | | | | | | | | | |
| 8" | 1 | \$1,539.58 | 18,475 | 2,423.67 | \$29,084 | 2,423.67 | \$29,084 | 2,423.67 | \$29,084 | 2,423.67 | \$29,084 | 2,423.67 | \$29,084 |
| Usage | 53,200 | \$3.22 | \$171,304 | \$6.54 | \$347,928 | \$6.74 | \$358,568 | \$6.93 | \$368,676 | \$7.14 | \$379,848 | \$7.14 | \$379,848 |
| | Total | | \$189,779 | | \$377,012 | | \$387,652 | | \$397,760 | | \$408,932 | | \$408,932 |
| Wholesale 1 - Potable Water | | \$/Meter | | | | | | | | | | | |
| 3" | 3 | \$407.77 | 14,680 | \$641.93 | \$23,109 | \$641.93 | \$23,109 | \$641.93 | \$23,109 | \$641.93 | \$23,109 | \$641.93 | \$23,109 |
| 4" | 1 | \$484.45 | 5,813 | 762.64 | \$9,152 | 762.64 | \$9,152 | 762.64 | \$9,152 | 762.64 | \$9,152 | 762.64 | \$9,152 |
| | | \$/1,000 gals | \$20,493 | | \$32,261 | | \$32,261 | | \$32,261 | | \$32,261 | | \$32,261 |
| Usage | 93,792 | \$5.47 | \$513,042 | \$6.54 | \$613,400 | \$6.74 | \$632,158 | \$6.93 | \$649,979 | \$7.14 | \$669,675 | \$7.14 | \$669,675 |
| | Total | | \$533,535 | | \$645,661 | | \$664,419 | | \$682,240 | | \$701,936 | | \$701,936 |
| Wholesale 2 - Non-Potable Water | | \$/Meter | | | | | | | | | | | |
| 2" | 1 | \$211.46 | 2,538 | \$332.89 | \$3,995 | \$332.89 | \$3,995 | \$332.89 | \$3,995 | \$332.89 | \$3,995 | \$332.89 | \$3,995 |
| 6" | 1 | \$964.05 | 11,569 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 | 1,517.64 | \$18,212 |
| | | \$/1,000 gals | \$14,106 | | \$22,206 | | \$22,206 | | \$22,206 | | \$22,206 | | \$22,206 |
| Usage | 81,047 | \$4.01 | \$324,998 | \$4.32 | \$350,123 | \$4.45 | \$360,659 | \$4.58 | \$371,195 | \$4.72 | \$382,541 | \$4.72 | \$382,541 |
| | Total | | \$339,104 | | \$372,329 | | \$382,865 | | \$393,401 | | \$404,748 | | \$404,748 |
| Total Wholesale Revenue | | | \$1,080,782 | | \$1,425,121 | | \$1,465,220 | | \$1,503,841 | | \$1,546,229 | | \$1,546,229 |
| Total Revenue | | | \$3,813,802 | | \$5,007,375 | | \$5,239,973 | | \$5,443,452 | | \$5,662,063 | | \$5,813,778 |
| Total Revenue Requirement | | | \$3,813,802 | | \$4,148,423 | | \$4,512,493 | | \$4,908,613 | | \$5,339,611 | | \$5,808,567 |
| Difference | | | (\$0) | | \$858,952 | | \$727,480 | | \$534,839 | | \$322,453 | | \$5,211 |
| % Change | | | 0.0% | | 20.7% | | 16.1% | | 10.9% | | 6.0% | | 0.1% |



Technical Appendix B – Sewer Rate Analyses

Santa Fe County
Sewer Rate Study
Exhibit 1
Revenue Requirement Analysis Summary

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | |
|--|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
| Revenue | | | | | | | |
| Retail Rate Revenues | \$460,083 | \$486,302 | \$489,929 | \$493,591 | \$497,291 | \$501,027 | \$504,801 |
| Non-Operating Revenues | 10,890 | 39,000 | 39,390 | 39,784 | 40,182 | 40,584 | 40,989 |
| Total Revenues | \$470,973 | \$525,302 | \$529,319 | \$533,375 | \$537,473 | \$541,611 | \$545,790 |
| Expenses | | | | | | | |
| Salary & Wages | \$117,637 | \$146,028 | \$151,869 | \$157,944 | \$164,262 | \$170,832 | \$177,665 |
| Employee Benefits | 49,475 | 69,683 | 73,242 | 77,026 | 81,050 | 85,332 | 89,890 |
| Travel | 0 | 2,600 | 2,639 | 2,679 | 2,719 | 2,760 | 2,801 |
| Vehicle Expenses | 2,284 | 11,748 | 11,924 | 12,103 | 12,285 | 12,469 | 12,656 |
| Maintenance | 22,277 | 66,000 | 66,990 | 67,995 | 69,015 | 70,050 | 71,101 |
| Services | 11,774 | 80,803 | 31,228 | 56,662 | 57,105 | 57,556 | 58,016 |
| Supplies | 19,781 | 31,500 | 32,288 | 33,095 | 33,922 | 34,770 | 35,639 |
| Other Operating Costs | 158,711 | 245,789 | 188,948 | 194,124 | 201,720 | 209,616 | 217,823 |
| Insurance & Deductibles | 3,316 | 18,698 | 19,259 | 19,837 | 20,432 | 21,045 | 21,676 |
| Total O&M Expenses | \$385,255 | \$672,849 | \$578,387 | \$621,465 | \$642,509 | \$664,429 | \$687,268 |
| Net Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Capital Improvements from Rates (See Exhibit 4) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Transfers | \$85,718 | (\$147,547) | (\$28,923) | (\$46,276) | (\$39,932) | (\$32,691) | (\$24,479) |
| Total Revenue Requirement | \$470,973 | \$525,302 | \$549,464 | \$575,188 | \$602,577 | \$631,738 | \$662,789 |
| Balance/(Deficiency) of Funds | \$0 | \$0 | (\$20,145) | (\$41,813) | (\$65,104) | (\$90,127) | (\$116,999) |
| Bal/(Def.) as a % of Rate Rev. | 0.0% | 0.0% | 5.5% | 11.3% | 17.4% | 23.9% | 30.7% |
| Proposed Rate Adjustment | 0.0% | 0.0% | 5.5% | 5.5% | 5.5% | 5.5% | 5.5% |
| Add'l Revenue from Adj. | \$0 | \$0 | \$20,145 | \$41,813 | \$65,104 | \$90,127 | \$116,999 |
| Total Bal/(Def.) of Funds | \$0 | \$0 | (\$0) | (\$0) | \$0 | \$0 | \$0 |
| Additional Rate Increase Needed | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Avg Monthly Residential Bill at 5,000 Gallons | \$26.71 | \$27.74 | | | | | |
| After Proposed Rate Adjustment | \$0.00 | \$27.74 | \$28.99 | \$30.26 | \$31.63 | \$33.02 | \$34.48 |
| Monthly \$ Change | \$0.00 | \$0.00 | \$1.25 | \$1.27 | \$1.37 | \$1.39 | \$1.46 |
| Cumulative Change | \$0.00 | \$0.00 | \$1.25 | \$2.52 | \$3.89 | \$5.28 | \$6.74 |
| Operating Reserve | \$2,675,610 | \$2,528,063 | \$2,499,140 | \$2,452,864 | \$2,412,932 | \$2,380,241 | \$2,355,762 |
| Target Minimum | \$192,600 | \$336,400 | \$289,200 | \$310,700 | \$321,300 | \$332,200 | \$343,600 |
| Debt Service Coverage Ratio (DSC) | | | | | | | |
| Before Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| After Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Santa Fe County
 Sewer Rate Study
 Exhibit 2
 Escalation Factors

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Notes |
|---------------------------|-------------------|-------------------|-----------|---------|---------|---------|---------|-------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Revenues [1] | | | | | | | | |
| Residential Growth | | 0.6% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [1] |
| Nonresidential Growth | | 0.6% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [1] |
| Flat | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Other Revenues | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | |
| Expenses | | | | | | | | |
| Labor | | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | [2] |
| Retirement | | | 8.0% | 8.0% | 8.0% | 8.0% | 8.0% | [2] |
| Benefits - Medical | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Benefits - Other | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Materials & Supplies | | | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | [2] |
| Equipment | | | 3.5% | 3.5% | 3.5% | 3.5% | 3.5% | [2] |
| Miscellaneous | | | 1.5% | 1.5% | 1.5% | 1.5% | 1.5% | [2] |
| Utilities | | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | [2] |
| Electricity | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [2] |
| Chemicals | | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | [2] |
| Flat | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | [2] |
| Insurance | | | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | [2] |
| Interest | | | | | | | | |
| | | | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | |
| New Debt Service | | | | | | | | |
| Low Interest Loans | | | | | | | | |
| Term in Years | | | 20 | 20 | 20 | 20 | 20 | |
| Rate | | | 2.5% | 2.5% | 2.5% | 2.5% | 2.5% | |
| Revenue Bond | | | | | | | | |
| Term in Years | | | 20 | 20 | 20 | 20 | 20 | |
| Rate | | | 4.5% | 4.5% | 4.5% | 4.5% | 4.5% | |

Notes:

[1] Population growth is 3.4% for SDA-1 and 0.6% for SF Co., from September, 26, 2016, Santa Fe County Infrastructure Build Out Plan, page 3. A 1.0% growth for consumption was used to be conservative.

[2] Escalation factors based on industry experience for utility projections.

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|---------------------------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Revenues | | | | | | | | [1] |
| Rate Revenues | | | | | | | | |
| Retail | | | | | | | | |
| Residential | \$258,125 | \$251,836 | \$254,355 | \$256,898 | \$259,467 | \$262,062 | \$264,682 | [2] As Residential Growth |
| Non-Residential | 224,974 | 110,818 | 111,926 | 113,045 | 114,176 | 115,317 | 116,471 | [2] As Nonresidential Growth |
| Contra - Govt'l GRT | (23,016) | 0 | 0 | 0 | 0 | 0 | 0 | [3] Rate Revenues are net of taxes |
| Total Residential and Non-Residential | \$460,083 | \$362,654 | \$366,281 | \$369,943 | \$373,643 | \$377,379 | \$381,153 | |
| Non-Residential State Penitentiary | 0 | 123,648 | 123,648 | 123,648 | 123,648 | 123,648 | 123,648 | As Flat |
| Total Rate Revenues | \$460,083 | \$486,302 | \$489,929 | \$493,591 | \$497,291 | \$501,027 | \$504,801 | |
| Non-Operating Revenues | | | | | | | | |
| Residential - Srvs Connect | \$10,890 | \$8,000 | \$8,080 | \$8,161 | \$8,242 | \$8,325 | \$8,408 | As Residential Growth |
| Nonresidential - Srvs Connect | 0 | 1,000 | 1,010 | 1,020 | 1,030 | 1,041 | 1,051 | As Nonresidential Growth |
| Miscellaneous | 0 | 30,000 | 30,300 | 30,603 | 30,909 | 31,218 | 31,530 | As Other Revenues |
| Total Non-Operating Revenues | \$10,890 | \$39,000 | \$39,390 | \$39,784 | \$40,182 | \$40,584 | \$40,989 | |
| Total Revenues | \$470,973 | \$525,302 | \$529,319 | \$533,375 | \$537,473 | \$541,611 | \$545,790 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|------------------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Salary & Wages | | | | | | | | |
| Exempt Employees | \$8,514 | \$14,040 | \$14,602 | \$15,186 | \$15,793 | \$16,425 | \$17,082 | As Labor |
| Classified Employees | 97,004 | 123,217 | 128,146 | 133,272 | 138,602 | 144,146 | 149,912 | As Labor |
| Overtime | 2,493 | 3,000 | 3,120 | 3,245 | 3,375 | 3,510 | 3,650 | As Labor |
| Term Employees | 9,626 | 5,771 | 6,002 | 6,242 | 6,492 | 6,751 | 7,021 | As Labor |
| Other Wages | 0 | 0 | 0 | 0 | 0 | 0 | 0 | As Labor |
| | \$117,637 | \$146,028 | \$151,869 | \$157,944 | \$164,262 | \$170,832 | \$177,665 | |
| Employee Benefits | | | | | | | | |
| FICA - Regular | \$6,987 | \$9,054 | \$9,326 | \$9,605 | \$9,894 | \$10,190 | \$10,496 | As Benefits - Other |
| FICA - Medicare | 1,634 | 2,117 | 2,181 | 2,246 | 2,313 | 2,383 | 2,454 | As Benefits - Other |
| Retirement Contributions | 23,144 | 29,378 | 31,728 | 34,266 | 37,008 | 39,968 | 43,166 | As Retirement |
| Health Care | 15,432 | 26,080 | 26,862 | 27,668 | 28,498 | 29,353 | 30,234 | As Benefits - Medical |
| Retirement Health Care | 2,254 | 2,861 | 2,947 | 3,035 | 3,126 | 3,220 | 3,317 | As Benefits - Medical |
| Workers Comp (Assessment) | 24 | 193 | 199 | 205 | 211 | 217 | 224 | As Benefits - Other |
| | \$49,475 | \$69,683 | \$73,242 | \$77,026 | \$81,050 | \$85,332 | \$89,890 | |
| Travel | | | | | | | | |
| In-State Travel | \$0 | \$2,000 | \$2,030 | \$2,060 | \$2,091 | \$2,123 | \$2,155 | As Miscellaneous |
| Out-of-State Travel | 0 | 600 | 609 | 618 | 627 | 637 | 646 | As Miscellaneous |
| | \$0 | \$2,600 | \$2,639 | \$2,679 | \$2,719 | \$2,760 | \$2,801 | |
| Vehicle Expenses | | | | | | | | |
| Vehicle Fuel | \$0 | \$8,000 | \$8,120 | \$8,242 | \$8,365 | \$8,491 | \$8,618 | As Miscellaneous |
| Vehicle Maintenance | 2,284 | 3,748 | 3,804 | 3,861 | 3,919 | 3,978 | 4,038 | As Miscellaneous |
| | \$2,284 | \$11,748 | \$11,924 | \$12,103 | \$12,285 | \$12,469 | \$12,656 | |
| Maintenance | | | | | | | | |
| Building/Structure | \$3,535 | \$10,000 | \$10,150 | \$10,302 | \$10,457 | \$10,614 | \$10,773 | As Miscellaneous |
| Equipment | 219 | 2,500 | 2,538 | 2,576 | 2,614 | 2,653 | 2,693 | As Miscellaneous |
| Infrastructure | 18,523 | 51,500 | 52,273 | 53,057 | 53,852 | 54,660 | 55,480 | As Miscellaneous |
| Pest Control | 0 | 2,000 | 2,030 | 2,060 | 2,091 | 2,123 | 2,155 | As Miscellaneous |
| | \$22,277 | \$66,000 | \$66,990 | \$67,995 | \$69,015 | \$70,050 | \$71,101 | |
| Services | | | | | | | | |
| Audit Contract | \$656 | \$938 | \$976 | \$1,015 | \$1,055 | \$1,097 | \$1,141 | As Labor |
| Contractual/Professional | 750 | 57,000 | 7,000 | 32,000 | 32,000 | 32,000 | 32,000 | As Flat |
| Software License/Maintenance | 0 | 4,490 | 4,602 | 4,717 | 4,835 | 4,956 | 5,080 | As Materials & Supplies |
| Other Services | 10,368 | 18,375 | 18,651 | 18,930 | 19,214 | 19,503 | 19,795 | As Miscellaneous |
| | \$11,774 | \$80,803 | \$31,228 | \$56,662 | \$57,105 | \$57,556 | \$58,016 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|---|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Supplies | | | | | | | | |
| Safety Equipment | \$1,682 | \$2,000 | \$2,050 | \$2,101 | \$2,154 | \$2,208 | \$2,263 | As Materials & Supplies |
| Uniform Expense | 0 | 2,500 | 2,563 | 2,627 | 2,692 | 2,760 | 2,829 | As Materials & Supplies |
| Non-Capital Med & Lab | 2,697 | 3,000 | 3,075 | 3,152 | 3,231 | 3,311 | 3,394 | As Materials & Supplies |
| Operational Supplies | 14,405 | 23,000 | 23,575 | 24,164 | 24,768 | 25,388 | 26,022 | As Materials & Supplies |
| Educational Supplies | 997 | 1,000 | 1,025 | 1,051 | 1,077 | 1,104 | 1,131 | As Materials & Supplies |
| | <u>\$19,781</u> | <u>\$31,500</u> | <u>\$32,288</u> | <u>\$33,095</u> | <u>\$33,922</u> | <u>\$34,770</u> | <u>\$35,639</u> | |
| Other Operating Costs | | | | | | | | |
| Telephone | \$0 | \$1,255 | \$1,305 | \$1,357 | \$1,412 | \$1,468 | \$1,527 | [4] As Utilities |
| Electricity | 2,082 | 46,000 | 27,458 | 30,000 | 31,200 | 32,448 | 33,746 | [4] As Utilities |
| Gas & Heating | 28,476 | 6,000 | 6,240 | 6,490 | 6,749 | 7,019 | 7,300 | [4] As Utilities |
| Garbage & Sewer | 127,053 | 181,800 | 142,942 | 145,000 | 150,800 | 156,832 | 163,105 | [4] As Utilities |
| Seminars & Workshops | 900 | 7,684 | 7,876 | 8,073 | 8,275 | 8,482 | 8,694 | [4] As Materials & Supplies |
| Postage & Mail Service | 0 | 500 | 513 | 525 | 538 | 552 | 566 | [4] As Materials & Supplies |
| Subscription & Dues | 0 | 2,300 | 2,358 | 2,416 | 2,477 | 2,539 | 2,602 | [4] As Materials & Supplies |
| Reporting and Recording | 200 | 250 | 256 | 263 | 269 | 276 | 283 | [4] As Materials & Supplies |
| | <u>\$158,711</u> | <u>\$245,789</u> | <u>\$188,948</u> | <u>\$194,124</u> | <u>\$201,720</u> | <u>\$209,616</u> | <u>\$217,823</u> | |
| Insurance & Deductibles | | | | | | | | |
| Brokerage & Policy Fees | \$135 | \$102 | \$105 | \$108 | \$111 | \$115 | \$118 | As Insurance |
| Workers Comp Premiums | 414 | 456 | 470 | 484 | 498 | 513 | 529 | As Insurance |
| Auto Insurance Premiums | 325 | 537 | 553 | 570 | 587 | 604 | 623 | As Insurance |
| Ge. Liability & Umbrella Prem. | 2,442 | 2,603 | 2,681 | 2,762 | 2,844 | 2,930 | 3,018 | As Insurance |
| Auto Insurance Deductible | 0 | 15,000 | 15,450 | 15,914 | 16,391 | 16,883 | 17,389 | As Insurance |
| | <u>\$3,316</u> | <u>\$18,698</u> | <u>\$19,259</u> | <u>\$19,837</u> | <u>\$20,432</u> | <u>\$21,045</u> | <u>\$21,676</u> | |
| Total Operations & Maintenance | \$385,255 | \$672,849 | \$578,387 | \$621,465 | \$642,509 | \$664,429 | \$687,268 | |
| Annual Debt Service | | | | | | | | |
| New Debt -Revenue Bond | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | Calc @ 4.5% for 20 Yrs |
| Total Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Less: From Sewer Impact Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Net Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|--|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Capital Improvements from Rates (See Exhibit 4) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | [5] See Exhibit 4 |
| Transfers | | | | | | | | |
| Transfers - Cost Allocation | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | As Labor |
| To/(From) Operating Reserve | 85,718 | (147,547) | (28,923) | (46,276) | (39,932) | (32,691) | (24,479) | Balance |
| Total Transfers | \$85,718 | (\$147,547) | (\$28,923) | (\$46,276) | (\$39,932) | (\$32,691) | (\$24,479) | |
| Total Revenue Requirement | \$470,973 | \$525,302 | \$549,464 | \$575,188 | \$602,577 | \$631,738 | \$662,789 | |
| Bal/(Def.) of Funds | \$0 | \$0 | (\$20,145) | (\$41,813) | (\$65,104) | (\$90,127) | (\$116,999) | |
| Rate Adj. as a % of Rate Rev. | 0.0% | 0.0% | 5.5% | 11.3% | 17.4% | 23.9% | 30.7% | |
| Proposed Rate Adjustment | 0.0% | 0.0% | 5.5% | 5.5% | 5.5% | 5.5% | 5.5% | |
| Add'l Revenue from Adj. | \$0 | \$0 | \$20,145 | \$41,813 | \$65,104 | \$90,127 | \$116,999 | |
| Total Bal/(Def.) of Funds | \$0 | \$0 | (\$0) | (\$0) | \$0 | \$0 | \$0 | |
| Additional Rate Increase Needed | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Debt Service Coverage Ratio (DSC) | | | | | | | | |
| Before Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | [6] |
| After Rate Adjustment | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Target | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | |
| Ordinance 2014-11 Rate Adjustments | | 3.7% | | | | | | |
| Avg Monthly Residential Bill at 5,000 Gallons | \$26.71 | \$27.74 | | | | | | |
| After Proposed Rate Adjustment | | \$27.74 | \$28.99 | \$30.26 | \$31.63 | \$33.02 | \$34.48 | [7] |
| Monthly \$ Change | | | \$1.25 | \$1.27 | \$1.37 | \$1.39 | \$1.46 | |
| Cumulative Change | | | \$1.25 | \$2.52 | \$3.89 | \$5.28 | \$6.74 | |

| | Actual FY 2017 | Budget FY 2018 | Projected | | | | | Escalation Factor (See Exhibit 2) |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------|
| | | | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | |
| Operating Reserve | | | | | | | | |
| Beginning Balance | \$2,589,892 | \$2,675,610 | \$2,528,063 | \$2,499,140 | \$2,452,864 | \$2,412,932 | \$2,380,241 | [8] From 2017 CAFR |
| Plus: CIP from Rates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | See Exhibit 4 |
| From Operating (Change in WC) | 85,718 | (147,547) | (28,923) | (46,276) | (39,932) | (32,691) | (24,479) | |
| New Revenue Bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | See Exhibit 4 |
| Less: Capital Improvements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | See Exhibit 4 |
| Ending Balance | \$2,675,610 | \$2,528,063 | \$2,499,140 | \$2,452,864 | \$2,412,932 | \$2,380,241 | \$2,355,762 | |
| Target Minimum | | | | | | | | |
| Minimum 50% of Operating Budget | \$192,600 | \$336,400 | \$289,200 | \$310,700 | \$321,300 | \$332,200 | \$343,600 | |

Notes:

- [1] The FY 2017 actual, and FY 2018 budget revenue and expense are based on the budget documents provided by the County, which were split between water and sewer utilities. See Note 2 for FY 2018 rate revenue.
- [2] Rate revenues for budget FY 2018 are calculated based on customer billing data for FY 2017, present rate schedule, adjusted for one year's growth. See Exhibit 5, 6, 7.
- [3] For budget FY 2017 taxes are an in and an out and included in the rate revenue totals and subtracted in the "Contra Govt'l GRT" revenue. For this analysis taxes are not included.
- [4] The FY 2017 budget category "Operating Costs" includes the payment to City for wholesale water.
- [5] The level of CIP from rates was set to annual depreciation by FY 2023. Annual depreciation from the FY 2017 CAFR of \$2.5 M, 1/3 to Sewer equals \$850,000.
- [6] The County has funded capital projects through G.O. Bonds which are paid by property taxes. This is a place holder for future rate revenue debt.
- [7] The FY 2017 "Average Monthly Residential Bill" is from Exhibit 5, 6, 7, total revenues, divided by the total customers, divided 12 months. Projected forward based on proposed rate adjustments shown above.
- [8] The FY 2017 beginning balance is \$13,869,677 from the 2017 CAFR report. \$6,100,000 is reserved for Aamodt. Assumed water allocated 2/3, sewer 1/3. $(\$13,869,677 - \$6,100,000) * 1/3$

| ID | Project Title | Projected | | | | | | | Total | Notes |
|--|---|------------|------------------|------------|--------------------|---------------------|--------------------|--------------------|---------------------|-------|
| | | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | | |
| Wastewater Capital Improvement Projects (CIP) | | | | | | | | | | |
| 250 | Senior Campus Wastewater Upsizing Reimbursement | \$0 | \$150,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$150,000 | [1] |
| 294 | Replace/Eliminate Lift Station Facility for Vista Aurora Sewer System | 0 | 0 | 0 | 0 | 500,000 | 0 | 0 | 500,000 | |
| 305 | Design and Construct Sewer Extension within the Agua Fria Village | 0 | 0 | 0 | 0 | 1,000,000 | 0 | 0 | 1,000,000 | |
| 313 | Perform Wastewater Master Planning for La Cienega / Cienguilla | 0 | 0 | 0 | 120,000 | 0 | 0 | 0 | 120,000 | |
| 334 | Tesuque Wastewater and Stormwater Feasibility Study | 0 | 0 | 0 | 0 | 50,000 | 0 | 0 | 50,000 | |
| 379 | Design and Construct Wastewater Collection System for Carlson Subdivision | 0 | 0 | 0 | 0 | 620,800 | 0 | 0 | 620,800 | |
| 756 | Water Re-Use (Treated Effluent) | 0 | 0 | 0 | 0 | 1,000,000 | 0 | 0 | 1,000,000 | |
| 1069 | Madrid Sewer System to reclaim grey water to Madrid open space and ballpark | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 768 | Aldea Lift Station - Acquisition | 0 | 0 | 0 | 0 | 0 | 200,000 | 0 | 200,000 | |
| Total Sewer Capital Improvement Projects | | \$0 | \$150,000 | \$0 | \$120,000 | \$3,170,800 | \$200,000 | \$0 | \$3,640,800 | |
| Sewer Capital Improvement Projects (CIP) - Long Term | | | | | | | | | | |
| 304 | Wastewater Improvements in Sustainable Development Area 1 | \$0 | \$0 | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$3,000,000 | [2] |
| 732 | Design and Construct New Wastewater Treatment and Reclamation Plant (Replace Quill) | 0 | 0 | 0 | 800,000 | 0 | 0 | 0 | 800,000 | |
| 1156 | Construct New Wastewater Treatment Plant (Replace Quill) | 0 | 0 | 0 | 0 | 8,000,000 | 0 | 0 | 8,000,000 | |
| 333 | Construct Pojoaque Valley Regional Wastewater System | 0 | 0 | 0 | 0 | 2,500,000 | 0 | 0 | 2,500,000 | |
| 1074 | Study and Construct Pojoaque Valley Regional Wastewater System | 0 | 0 | 0 | 0 | 0 | 1,500,000 | 0 | 1,500,000 | |
| Total Sewer Capital Improvement Projects | | \$0 | \$0 | \$0 | \$800,000 | \$11,500,000 | \$2,500,000 | \$1,000,000 | \$15,800,000 | |
| Utilities Capital Improvement Projects (split 50%/50% water and wastewater) | | | | | | | | | | |
| 1122 | AS400 Billing Module | \$0 | \$52,221 | \$0 | \$0 | \$0 | \$0 | \$0 | \$52,221 | |
| 660 | Water and Wastewater Equipment - full size dump truck | 0 | 0 | 0 | 150,000 | 0 | 0 | 0 | 150,000 | |
| Total Utilities Capital Improvement Projects | | \$0 | \$52,221 | \$0 | \$150,000 | \$0 | \$0 | \$0 | \$202,221 | |
| Total Capital Improvement Projects | | \$0 | \$202,221 | \$0 | \$1,070,000 | \$14,670,800 | \$2,700,000 | \$1,000,000 | \$19,643,021 | |
| Deferred Projects | | \$0 | (\$202,221) | \$0 | (\$1,070,000) | (\$11,870,800) | (\$2,700,000) | (\$1,000,000) | (\$16,843,021) | |
| Total Capital Improvement Projects | | \$0 | \$0 | \$0 | \$0 | \$2,800,000 | \$0 | \$0 | \$2,800,000 | |
| Less: Outside Funding Sources | | | | | | | | | | |
| | Operating Reserve | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| | Grants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | G.O. Bonds paid by property tax in General Fund | 0 | 0 | 0 | 0 | 2,800,000 | 0 | 0 | 2,800,000 | |
| | New Revenue Bonds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Outside Funding Sources | | \$0 | \$0 | \$0 | \$0 | \$2,800,000 | \$0 | \$0 | \$2,800,000 | |
| Rate Funded Capital | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | [3] |

Notes:

- [1] The CIP plan was based on the County capital improvement plan provided from FY 2017 through FY 2023 and County staff input on projects.
- [2] The Master plan for SDA1 is still being completed. The level shown here is based on best available information at the time.
- [3] The level of CIP from rates was set to annual depreciation by FY 2023. Annual depreciation from the FY 2017 CAFR of \$2.5 M, 1/3 to Water equals \$833,333, rounded to \$850,000.

| | | CY 2016 | CY 2017 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Total | Notes |
|---|----------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-------|
| Residential Sewer Service | | | | | | | | | | | | | | | | | |
| | <u>\$/Acct</u> | | | | | | | | | | | | | | | | [1] |
| Monthly Service Fee | \$7.73 | \$7.95 | 1,063 | 1,078 | 1,075 | 1,078 | 1,074 | 1,084 | 1,076 | 1,087 | 1,100 | 1,099 | 1,104 | 1,103 | 1,085 | 1,085 | |
| | | | 1,063 | 1,078 | 1,075 | 1,078 | 1,074 | 1,084 | 1,076 | 1,087 | 1,100 | 1,099 | 1,104 | 1,103 | 1,085 | 1,085 | |
| Total Monthly Service Revenue | | | \$8,217 | \$8,333 | \$8,310 | \$8,333 | \$8,302 | \$8,379 | \$8,554 | \$8,642 | \$8,745 | \$8,737 | \$8,777 | \$8,769 | \$102,098 | | |
| | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | | | |
| Usage Charge | | | | | | | | | | | | | | | | | |
| First 1,000 | \$0.00 | \$0.00 | 926 | 940 | 934 | 930 | 931 | 929 | 963 | 980 | 978 | 976 | 979 | 978 | 11,443 | 11,443 | |
| Above 1,000 | 4.50 | 4.69 | 2,191 | 2,223 | 4,488 | 2,185 | 2,231 | 2,203 | 2,380 | 2,416 | 2,501 | 2,503 | 2,513 | 2,516 | 30,350 | 30,350 | |
| | | | 3,117 | 3,163 | 5,422 | 3,115 | 3,162 | 3,132 | 3,342 | 3,396 | 3,479 | 3,479 | 3,492 | 3,495 | 41,793 | 41,793 | |
| Total Usage Revenue | | | \$9,860 | \$10,002 | \$20,196 | \$9,834 | \$10,039 | \$9,915 | \$11,160 | \$11,331 | \$11,731 | \$11,737 | \$11,785 | \$11,802 | \$139,392 | | |
| Total Residential Sewer Service | | | \$18,077 | \$18,335 | \$28,506 | \$18,167 | \$18,341 | \$18,294 | \$19,715 | \$19,973 | \$20,476 | \$20,474 | \$20,562 | \$20,571 | \$241,489 | | |
| Non-Residential Sewer Service | | | | | | | | | | | | | | | | | |
| | <u>\$/Acct</u> | | | | | | | | | | | | | | | | [1] |
| Monthly Service Fee | \$7.73 | \$7.95 | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | 25 | |
| | | | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | 25 | |
| Total Monthly Service Revenue | | | \$201 | \$201 | \$201 | \$201 | \$201 | \$201 | \$80 | \$246 | \$207 | \$207 | \$207 | \$207 | \$2,359 | \$2,359 | |
| | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | | | |
| Usage Charge | | | | | | | | | | | | | | | | | |
| First 1,000 | \$0.00 | \$0.00 | 17 | 17 | 17 | 16 | 16 | 16 | 2 | 20 | 16 | 16 | 17 | 17 | 187 | 187 | |
| Above 1,000 | 4.50 | 4.69 | 1,656 | 1,927 | 1,716 | 1,663 | 1,512 | 1,771 | 214 | 3,078 | 1,532 | 1,532 | 1,970 | 1,542 | 20,112 | 20,112 | |
| | | | 1,674 | 1,944 | 1,732 | 1,679 | 1,528 | 1,787 | 216 | 3,098 | 1,548 | 1,548 | 1,986 | 1,558 | 20,299 | 20,299 | |
| Total Usage Revenue | | | \$7,454 | \$8,670 | \$7,720 | \$7,482 | \$6,802 | \$7,969 | \$1,006 | \$14,437 | \$7,186 | \$7,185 | \$9,238 | \$7,230 | \$92,378 | \$92,378 | |
| Non-Residential - State Penitentiary (Unmetered) | | | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$123,648 | \$123,648 | |
| Non-Residential (Unmetered) | | | | | | | | | | | | | | | | | |
| Acct 202 | \$25.17 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 12 |
| Acct 10754 | \$64.98 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 12 |
| Acct 11917 | \$822.38 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 12 |
| Acct 20002 | \$22.50 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 12 |
| Acct 20003 | \$23.45 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 12 |
| | | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 60 | 60 | |
| Total Monthly Service Revenue | | | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$11,502 | \$11,502 | |
| Total Non-Residential Sewer Service | | | \$18,917 | \$20,133 | \$19,183 | \$18,945 | \$18,265 | \$19,432 | \$12,348 | \$25,946 | \$18,656 | \$18,654 | \$20,707 | \$18,699 | \$229,886 | \$229,886 | |

| | CY 2016 | | CY 2017 | | | | | | | | | | Total | Notes |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-------|
| | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | | |
| Summary | | | | | | | | | | | | | | |
| Customer Accounts | | | | | | | | | | | | | | |
| Residential Sewer Service | 1,063 | 1,078 | 1,075 | 1,078 | 1,074 | 1,084 | 1,076 | 1,087 | 1,100 | 1,099 | 1,104 | 1,103 | 1,085 | |
| Non-Residential Sewer Service | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | |
| Total Customers | 1,089 | 1,104 | 1,101 | 1,104 | 1,100 | 1,110 | 1,086 | 1,118 | 1,126 | 1,125 | 1,130 | 1,129 | 1,110 | |
| Consumption (gallons) | | | | | | | | | | | | | | |
| Residential Sewer Service | 3,117 | 3,163 | 5,422 | 3,115 | 3,162 | 3,132 | 3,342 | 3,396 | 3,479 | 3,479 | 3,492 | 3,495 | 41,793 | |
| Non-Residential Sewer Service | 1,674 | 1,944 | 1,732 | 1,679 | 1,528 | 1,787 | 216 | 3,098 | 1,548 | 1,548 | 1,986 | 1,558 | 20,299 | |
| Total Consumption (Gallons) | 4,791 | 5,106 | 7,154 | 4,794 | 4,690 | 4,919 | 3,559 | 6,494 | 5,027 | 5,026 | 5,478 | 5,053 | 62,092 | |
| Total Revenue | | | | | | | | | | | | | | |
| Residential Sewer Service | \$18,077 | \$18,335 | \$28,506 | \$18,167 | \$18,341 | \$18,294 | \$19,715 | \$19,973 | \$20,476 | \$20,474 | \$20,562 | \$20,571 | \$241,489 | |
| Non-Residential Sewer Service | 18,917 | 20,133 | 19,183 | 18,945 | 18,265 | 19,432 | 12,348 | 25,946 | 18,656 | 18,654 | 20,707 | 18,699 | 229,886 | |
| Total Revenue | \$36,994 | \$38,468 | \$47,689 | \$37,112 | \$36,606 | \$37,726 | \$32,062 | \$45,919 | \$39,131 | \$39,128 | \$41,269 | \$39,270 | \$471,375 | |

| Class of Service | Budget-Actuals | Calculated | % Difference |
|-------------------------------|------------------|------------------|--------------|
| | FY 2017 | FY 2017 | |
| Residential Sewer Service | \$258,125 | \$241,489 | -6.4% |
| Non-Residential Sewer Service | 224,974 | 229,886 | 2.2% |
| Deduct Tax in Revenue (5%) | (23,000) | N/A | |
| Total | \$460,099 | \$471,375 | 2.5% |

Notes:

- [1] Revenue at present rates was based on County billing data for customer and usage, and the current rate schedule. This calculation was compared to the billing data invoices.
- [2] Budget actuals for FY 2017 were provided by the County and compared to the calculated FY 2017 for accuracy of billing data to general ledger data.

| | | | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Total | Notes |
|---|----------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-------|
| Growth | | | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | | |
| Consumption | | | | | | | | | | | | | | | | |
| Residential | | | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | | |
| Non-Residential | | | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | | |
| | CY 2017 | CY 2018 | | | | | | | | | | | | | | |
| Residential Sewer Service | | | | | | | | | | | | | | | | [1] |
| | <u>\$/Acct</u> | | | | | | | | | | | | | | | |
| Monthly Service Fee | \$7.95 | \$8.18 | 1,069 | 1,084 | 1,081 | 1,084 | 1,080 | 1,091 | 1,082 | 1,094 | 1,107 | 1,106 | 1,111 | 1,110 | 1,092 | |
| | | | 1,069 | 1,084 | 1,081 | 1,084 | 1,080 | 1,091 | 1,082 | 1,094 | 1,107 | 1,106 | 1,111 | 1,110 | 1,092 | |
| Total Monthly Service Revenue | | | \$8,502 | \$8,622 | \$8,598 | \$8,622 | \$8,590 | \$8,670 | \$8,854 | \$8,945 | \$9,052 | \$9,044 | \$9,085 | \$9,077 | \$105,658 | |
| Usage Charge | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | | |
| First 1,000 | \$0.00 | \$0.00 | 932 | 946 | 940 | 935 | 937 | 934 | 969 | 986 | 984 | 982 | 985 | 984 | 11,512 | |
| Above 1,000 | 4.69 | 4.89 | 2,204 | 2,236 | 4,515 | 2,198 | 2,244 | 2,217 | 2,394 | 2,431 | 2,516 | 2,518 | 2,528 | 2,532 | 30,532 | |
| | | | 3,136 | 3,181 | 5,454 | 3,134 | 3,181 | 3,151 | 3,363 | 3,416 | 3,500 | 3,499 | 3,513 | 3,516 | 42,044 | |
| Total Usage Revenue | | | \$10,338 | \$10,486 | \$21,175 | \$10,310 | \$10,525 | \$10,395 | \$11,706 | \$11,885 | \$12,304 | \$12,311 | \$12,361 | \$12,379 | \$146,178 | |
| Total Residential Sewer Service | | | \$18,839 | \$19,108 | \$29,772 | \$18,932 | \$19,115 | \$19,065 | \$20,561 | \$20,830 | \$21,356 | \$21,355 | \$21,446 | \$21,456 | \$251,836 | |
| Non-Residential Sewer Service | | | | | | | | | | | | | | | | [1] |
| | <u>\$/Acct</u> | | | | | | | | | | | | | | | |
| Monthly Service Fee | \$7.95 | \$8.18 | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | |
| | | | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | |
| Total Monthly Service Revenue | | | \$208 | \$208 | \$208 | \$208 | \$208 | \$208 | \$82 | \$255 | \$214 | \$214 | \$214 | \$214 | \$2,441 | |
| Usage Charge | <u>\$/1,000 gals</u> | | | | | | | | | | | | | | | |
| First 1,000 | \$0.00 | \$0.00 | 17 | 17 | 17 | 16 | 16 | 16 | 2 | 20 | 16 | 16 | 17 | 17 | 188 | |
| Above 1,000 | 4.69 | 4.89 | 1,666 | 1,938 | 1,726 | 1,673 | 1,521 | 1,781 | 216 | 3,097 | 1,541 | 1,541 | 1,982 | 1,551 | 20,232 | |
| | | | 1,684 | 1,956 | 1,743 | 1,689 | 1,537 | 1,798 | 218 | 3,117 | 1,558 | 1,557 | 1,998 | 1,567 | 20,421 | |
| Total Usage Revenue | | | \$7,815 | \$9,090 | \$8,094 | \$7,845 | \$7,132 | \$8,355 | \$1,055 | \$15,143 | \$7,538 | \$7,536 | \$9,690 | \$7,583 | \$96,875 | |
| Non-Residential - State Penitentiary (Unmetered) | | | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$10,304 | \$123,648 | |
| Non-Residential (Unmetered) | | | | | | | | | | | | | | | | |
| Acct 202 | \$25.17 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | |
| Acct 10754 | \$64.98 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | |
| Acct 11917 | \$822.38 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | |
| Acct 20002 | \$22.50 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | |
| Acct 20003 | \$23.45 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | |
| | | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 60 | |
| Total Monthly Service Revenue | | | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$958 | \$11,502 | |
| Total Non-Residential Sewer Service | | | \$19,285 | \$20,560 | \$19,564 | \$19,315 | \$18,602 | \$19,825 | \$12,400 | \$26,661 | \$19,014 | \$19,012 | \$21,166 | \$19,060 | \$234,466 | |

Calculated Revenues at Present Rates - FY 2017/2018

| | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Growth | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% |
| Consumption | | | | | | | | | | | | |
| Residential | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% |
| Non-Residential | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% |

| | CY 2017 | | CY 2018 | | | | | | | | | | Total | Notes |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-------|
| | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | | |
| Summary | | | | | | | | | | | | | | |
| Customer Accounts | | | | | | | | | | | | | | |
| Residential Sewer Service | 1,069 | 1,084 | 1,081 | 1,084 | 1,080 | 1,091 | 1,082 | 1,094 | 1,107 | 1,106 | 1,111 | 1,110 | 1,092 | |
| Non-Residential Sewer Service | 26 | 26 | 26 | 26 | 26 | 26 | 10 | 31 | 26 | 26 | 26 | 26 | 25 | |
| Total Customers | 1,096 | 1,111 | 1,108 | 1,111 | 1,107 | 1,117 | 1,093 | 1,125 | 1,133 | 1,132 | 1,137 | 1,136 | 1,117 | |
| Consumption (gallons) | | | | | | | | | | | | | | |
| Residential Sewer Service | 3,136 | 3,181 | 5,454 | 3,134 | 3,181 | 3,151 | 3,363 | 3,416 | 3,500 | 3,499 | 3,513 | 3,516 | 42,044 | |
| Non-Residential Sewer Service | 1,684 | 1,956 | 1,743 | 1,689 | 1,537 | 1,798 | 218 | 3,117 | 1,558 | 1,557 | 1,998 | 1,567 | 20,421 | |
| Total Consumption (Gallons) | 4,820 | 5,137 | 7,197 | 4,822 | 4,718 | 4,949 | 3,580 | 6,533 | 5,058 | 5,057 | 5,511 | 5,083 | 62,465 | |
| Total Revenue | | | | | | | | | | | | | | |
| Residential Sewer Service | \$18,839 | \$19,108 | \$29,772 | \$18,932 | \$19,115 | \$19,065 | \$20,561 | \$20,830 | \$21,356 | \$21,355 | \$21,446 | \$21,456 | \$251,836 | |
| Non-Residential Sewer Service | 19,285 | 20,560 | 19,564 | 19,315 | 18,602 | 19,825 | 12,400 | 26,661 | 19,014 | 19,012 | 21,166 | 19,060 | 234,466 | |
| Total Revenue | \$38,124 | \$39,668 | \$49,337 | \$38,247 | \$37,717 | \$38,890 | \$32,960 | \$47,491 | \$40,371 | \$40,368 | \$42,613 | \$40,516 | \$486,302 | |

| Class of Service | Budget FY 2018 | Calculated FY 2018 | % Difference |
|-------------------------------|------------------|--------------------|--------------|
| Residential Sewer Service | \$270,000 | \$251,836 | -6.7% |
| Non-Residential Sewer Service | 227,795 | 110,818 | -51.4% |
| Prison Revenue | | 123,648 | |
| Deduct Tax in Revenue (5%) | (25,525) | N/A | |
| Total | \$472,270 | \$486,302 | 3.0% |

Notes:

- [1] Calculated FY 2017 data was used to calculate FY 2018 rate revenues based on assumed growth escalation factor from Exhibit 2.
- [2] Budget FY 2018 were provided by the County and compared to the calculated FY 2018 for accuracy of billing data to budget.

Santa Fe County
 Sewer Rate Study
 Exhibit 7
 Volume Allocation Factor

| | FY 2019 Estimated Annual Flow (1,000 Gals) [1] | 8.9% I&I [2] | Total Flows (Flow + Losses) | Base Flow (MGD) | % of Total |
|--|---|-----------------|-----------------------------------|-----------------------|---------------|
| Residential | 42,462 | 3,779 | 46,241 | 0.13 | 39.9% |
| Non-Residential | 20,624 | 1,836 | 22,459 | 0.06 | 19.4% |
| Non-Residential - State Penitentiary (Unmetered) | 43,241 | 3,848 | 47,089 | 0.13 | 40.7% |
| Total | 106,326 | 9,463 | 115,789 | 0.32 | 100.0% |
| Volume Allocation Factor | | | <i>Sewer Flows [3]</i> | 0.31 | (VOL) |

Notes

- [1] - Based on County FY 2017 billing data plus growth to FY 2019. Prison based on actual FY 2017 water usage, plus growth to FY 2019, at 80% for sewer flow.
 [2] - Estimated I/I provided by County.
 [3] - Average daily flow for 2017 provided by County plus growth for FY 2018, 2019.

Santa Fe County
 Sewer Rate Study
 Exhibit 8
 Customer Allocation Factors

| | <i>Actual Customer</i> | | <i>Weighted for Services</i> | | |
|--|------------------------|---------------|------------------------------|--------------|---------------|
| | Number of Accounts | % of Total | Number of Accounts | % of Total | |
| Residential | 1,103 | 97.7% | 1.00 | 1,103 | 97.1% |
| Non-Residential | 25 | 2.3% | 1.00 | 25 | 2.2% |
| Non-Residential - State Penitentiary (Unmetered) | 1 | 0.1% | 8.00 | 8 | 0.7% |
| Total | 1,129 | 100.0% | | 1,136 | 100.0% |
| Customer Allocation Factors | | (AC) | | | (WCA) |

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Santa Fe County
 Sewer Rate Study
 Exhibit 9
 Revenue Related Allocation Factor

| | Projected FY 2019 | % of Total |
|--|----------------------|---------------|
| Residential | \$254,355 | 51.9% |
| Non-Residential | 111,926 | 22.8% |
| Non-Residential - State Penitentiary (Unmetered) | 123,648 | 25.2% |
| <i>Total Rate Revenues</i> | <i>\$489,929</i> | <i>100.0%</i> |
| Revenue Allocation Factor | | (RR) |

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Functionalization and Classification of the Revenue Requirement

| | FY 2019 | Volume (VOL) | Actual Customer (AC) | Service & Accounting (WCA) | Revenue Related (RR) | Direct Assign. (DA) | Basis of Classification | |
|------------------------------|-----------|-----------------|----------------------------|----------------------------------|----------------------------|---------------------------|-------------------------|-----|
| Salary & Wages | | | | | | | | |
| Exempt Employees | \$14,602 | \$14,602 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Classified Employees | 128,146 | 128,146 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Overtime | 3,120 | 3,120 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Term Employees | 6,002 | 6,002 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Other Wages | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$151,869 | \$151,869 | \$0 | \$0 | \$0 | \$0 | | |
| Employee Benefits | | | | | | | | |
| FICA - Regular | \$9,326 | \$9,326 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| FICA - Medicare | 2,181 | 2,181 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Retirement Contributions | 31,728 | 31,728 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Health Care | 26,862 | 26,862 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Retirement Health Care | 2,947 | 2,947 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Workers Comp (Assessment) | 199 | 199 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$73,242 | \$73,242 | \$0 | \$0 | \$0 | \$0 | | |
| Travel | | | | | | | | |
| In-State Travel | \$2,030 | \$2,030 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Out-of-State Travel | 609 | 609 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$2,639 | \$2,639 | \$0 | \$0 | \$0 | \$0 | | |
| Vehicle Expenses | | | | | | | | |
| Vehicle Fuel | \$8,120 | \$8,120 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Vehicle Maintenance | 3,804 | 3,804 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$11,924 | \$11,924 | \$0 | \$0 | \$0 | \$0 | | |
| Maintenance | | | | | | | | |
| Building/Structure | \$10,150 | \$10,150 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Equipment | 2,538 | 2,538 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Infrastructure | 52,273 | 52,273 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Pest Control | 2,030 | 2,030 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$66,990 | \$66,990 | \$0 | \$0 | \$0 | \$0 | | |
| Services | | | | | | | | |
| Audit Contract | \$976 | \$0 | \$0 | \$976 | \$0 | \$0 | 100.0% | WCA |
| Contractual/Professional | 7,000 | 7,000 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Software License/Maintenance | 4,602 | 4,602 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Other Services | 18,651 | 18,651 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$31,228 | \$30,253 | \$0 | \$976 | \$0 | \$0 | | |
| Supplies | | | | | | | | |
| Safety Equipment | \$2,050 | \$2,050 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Uniform Expense | 2,563 | 2,563 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Non-Capital Med & Lab | 3,075 | 3,075 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Operational Supplies | 23,575 | 23,575 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Educational Supplies | 1,025 | 1,025 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$32,288 | \$32,288 | \$0 | \$0 | \$0 | \$0 | | |

Functionalization and Classification of the Revenue Requirement

| | | Actual Volume (VOL) | Customer (AC) | Service & Accounting (WCA) | Revenue Related (RR) | Direct Assign. (DA) | | Basis of Classification |
|--|-------------------|---------------------------|------------------|----------------------------------|----------------------------|---------------------------|--------|-------------------------|
| | FY 2019 | | | | | | | |
| Other Operating Costs | | | | | | | | |
| Telephone | \$1,305 | \$1,305 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Electricity | 27,458 | 27,458 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Gas & Heating | 6,240 | 6,240 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Garbage & Sewer | 142,942 | 142,942 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Seminars & Workshops | 7,876 | 0 | 0 | 7,876 | 0 | 0 | 100.0% | WCA |
| Postage & Mail Service | 513 | 0 | 513 | 0 | 0 | 0 | 100.0% | AC |
| Subscription & Dues | 2,358 | 0 | 2,358 | 0 | 0 | 0 | 100.0% | AC |
| Reporting and Recording | 256 | 0 | 256 | 0 | 0 | 0 | 100.0% | AC |
| | \$188,948 | \$177,945 | \$3,126 | \$7,876 | \$0 | \$0 | | |
| Insurance & Deductibles | | | | | | | | |
| Brokerage & Policy Fees | \$105 | \$105 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Workers Comp Premiums | 470 | 470 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Auto Insurance Premiums | 553 | 553 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Ge. Liability & Umbrella Prem. | 2,681 | 2,681 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Auto Insurance Deductible | 15,450 | 15,450 | 0 | 0 | 0 | 0 | 100.0% | VOL |
| | \$19,259 | \$19,259 | \$0 | \$0 | \$0 | \$0 | | |
| Total Operations & Maintenance | \$578,387 | \$566,409 | \$3,126 | \$8,852 | \$0 | \$0 | | |
| Annual Debt Service | | | | | | | | |
| New Debt -Revenue Bond | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Total Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| <i>Less: From Sewer Impact Fee</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | | |
| Net Annual Debt Service | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| Capital Improvements from Rates (See Exhibit 4) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| Transfers | | | | | | | | |
| Transfers - Cost Allocation | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | 100.0% | VOL |
| To/(From) Operating Reserve | (28,923) | (28,923) | 0 | 0 | 0 | 0 | 100.0% | VOL |
| Total Transfers | (\$28,923) | (\$28,923) | \$0 | \$0 | \$0 | \$0 | | |
| Total Revenue Requirement | \$549,464 | \$537,486 | \$3,126 | \$8,852 | \$0 | \$0 | | |
| Less: Non-Operating Revenues | | | | | | | | |
| Residential - Srvc Connect | \$8,080 | \$0 | \$0 | \$0 | \$8,080 | \$0 | 100.0% | RR |
| Nonresidential - Srvc Connect | 1,010 | 0 | 0 | 0 | 1,010 | 0 | 100.0% | RR |
| Contra - Govt'l GRT | 0 | 0 | 0 | 0 | 0 | 0 | 100.0% | RR |
| Miscellaneous | 30,300 | 0 | 0 | 0 | 30,300 | 0 | 100.0% | RR |
| Total Non-Operating Revenues | \$39,390 | \$0 | \$0 | \$0 | \$39,390 | \$0 | | |
| Net Revenue Requirement | \$510,074 | \$537,486 | \$3,126 | \$8,852 | (\$39,390) | \$0 | | |
| Total Revenue Requirement Percentage | 100.0% | 105.4% | 0.6% | 1.7% | -7.7% | 0.0% | | |

Santa Fe County
Sewer Rate Study
Exhibit 11
Allocation of Revenue Requirement

| | | Non-Residential - State | | | Non-Residential | |
|--------------------------------|-------------------|-------------------------|-----------------|------------------|------------------|------------------|
| | FY 2019 | Residential | Non-Residential | Penitentiary | Residential | Residential |
| Volume | \$537,486 | \$214,647 | \$104,254 | \$218,585 | \$214,647 | \$322,839 |
| Customer | | | | | | |
| Actual Customer | \$3,126 | \$3,053 | \$71 | \$3 | \$3,053 | \$73 |
| Service & Accounting | 8,852 | 8,591 | 199 | 62 | 8,591 | 261 |
| Total Customer | \$11,978 | \$11,644 | \$269 | \$65 | \$11,644 | \$334 |
| Revenue Related | (\$39,390) | (\$20,450) | (\$8,999) | (\$9,941) | (\$20,450) | (\$18,940) |
| Direct Assign. | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Net Revenue Requirement | \$510,074 | \$205,841 | \$95,524 | \$208,709 | \$205,841 | \$304,233 |
| Percentage of Total | 100.0% | 40.4% | 18.7% | 40.9% | 40.4% | 59.6% |

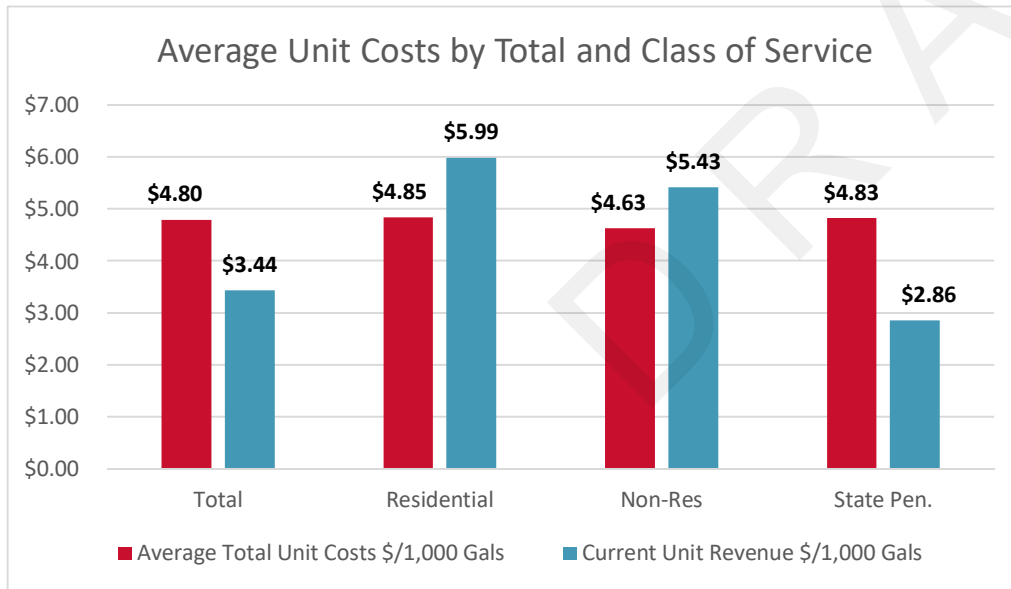
Santa Fe County
Sewer Rate Study
Exhibit 12
Summary of Cost of Service

| | | Non-Residential - State Penitentiary | | | Non- Residential | |
|--|-------------------|--|------------------|-------------------|---------------------|-------------------|
| | FY 2019 | Residential | Non-Residential | | Residential | Residential |
| Revenues at Present Rates | | | | | | |
| Residential and Non-Residential | \$366,281 | \$254,355 | \$111,926 | | \$254,355 | \$111,926 |
| State Penitentiary | 123,648 | | | 123,648 | 0 | 123,648 |
| | | ----- | ----- | ----- | ----- | ----- |
| Total Revenues at Present Rates | \$489,929 | \$254,355 | \$111,926 | \$123,648 | \$254,355 | \$235,574 |
| Less: Net Revenue Requirement | \$510,074 | \$205,841 | \$95,524 | \$208,709 | \$205,841 | \$304,233 |
| | | ----- | ----- | ----- | ----- | ----- |
| Bal/(Def) of Funds | (\$20,145) | \$48,514 | \$16,402 | (\$85,061) | \$48,514 | (\$68,659) |
| | | ----- | ----- | ----- | ----- | ----- |
| Required % Change in Rates | 5.5% | -19.1% | -14.7% | 68.8% | -19.1% | 61.3% |

[1] State Penitentiary per contract based on fixed flat rate of \$10,304 per month.

Santa Fe County
 Sewer Rate Study
 Exhibit 13
 Summary of Unit Costs

| FY 2019 | Non-Residential - State | | | Non-Residential | | |
|--|-------------------------|-----------------|--------------|-----------------|-------------|--------|
| | Residential | Non-Residential | Penitentiary | Residential | Residential | |
| Average Total Unit Costs (\$/1,000 Gals) | \$4.80 | \$4.85 | \$4.63 | \$4.83 | \$4.85 | \$4.76 |
| Current Unit Revenue (\$/1,000 Gals) | \$3.44 | \$5.99 | \$5.43 | \$2.86 | \$5.99 | \$1.75 |
| Basic Data | | | | | | |
| Volume (Gallons) | 106,326 | 42,462 | 20,624 | 43,241 | 42,462 | 63,865 |
| # of Accounts | 1,129 | 1,103 | 25 | 1 | 1,103 | 26 |



**Santa Fe County
Sewer Rate Study
Exhibit 14
Summary of Sewer Rates**

| Sewer Rates (Residential and Non-Residential) | 2017 | 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Monthly Fixed Fee | \$7.95 | \$8.18 | \$8.59 | \$9.02 | \$9.47 | \$9.94 | \$10.44 |
| Usage Charge > 1,000 gallons (\$/1,000 Gallons) | \$4.69 | \$4.89 | \$5.10 | \$5.31 | \$5.54 | \$5.77 | \$6.01 |
| Average Monthly Bill at 5,000 gallons | \$26.71 | \$27.74 | \$28.99 | \$30.26 | \$31.63 | \$33.02 | \$34.48 |
| Overall Proposed Change | | | 4.5% | 4.4% | 4.5% | 4.4% | 4.4% |

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Santa Fe County
Sewer Rate Study
Exhibit 15
Summary of Rate Design Revenue Check

| Rate Component | CY 2016 | CY 2017 | CY 2017 | CY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | TOTAL | | | | | | |
|--|---------------------|------------------|---------------------|------------------|--|------------------|------------------|------------------|------------------|--------------------|---------------|------------------|---------------|------------------|---------------|---------|
| Residential and Non-Residential | | | | | | | | | | | | | | | | |
| Growth | | | 0.6% | | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | | | | | | | |
| Number of Customers | 1,110 | \$7.73 | \$7.95 | 1,117 | \$7.95 | \$8.18 | 1,128 | \$8.59 | 1,139 | \$9.02 | 1,151 | \$9.47 | 1,162 | \$9.94 | 1,174 | \$10.44 |
| Usage | <i>Winter Water</i> | | <i>Winter Water</i> | | <i>Water Use at Average of 5,000 Gallons</i> | | | | | | | | | | | |
| First 1,000 | 11,631 | \$0.00 | \$0.00 | 11,700 | \$0.00 | \$0.00 | 13,536 | \$0.00 | 13,671 | \$0.00 | 13,808 | \$0.00 | 13,946 | \$0.00 | 14,086 | \$0.00 |
| Above 1,000 | <u>50,461</u> | \$4.50 | \$4.69 | <u>50,764</u> | \$4.69 | \$4.89 | <u>54,144</u> | \$5.10 | <u>54,685</u> | \$5.31 | <u>55,232</u> | \$5.54 | <u>55,784</u> | \$5.77 | <u>56,342</u> | \$6.01 |
| | 62,092 | | | 62,465 | | | 67,680 | | 68,357 | | 69,040 | | 69,731 | | 70,428 | |
| Total Rate Revenue | | <u>\$336,315</u> | | <u>\$351,247</u> | | <u>\$392,407</u> | | <u>\$413,694</u> | | <u>\$436,748</u> | | <u>\$460,500</u> | | <u>\$485,670</u> | | |
| New Rate Revenue | | | | | \$392,407 | \$413,694 | \$436,748 | \$460,500 | \$485,670 | \$2,189,020 | | | | | | |
| Present Rate Revenue | | | | | <u>\$366,281</u> | <u>\$369,943</u> | <u>\$373,643</u> | <u>\$377,379</u> | <u>\$381,153</u> | <u>\$1,868,399</u> | | | | | | |
| \$ Difference | | | | | \$26,127 | \$43,750 | \$63,105 | \$83,121 | \$104,517 | \$320,621 | | | | | | |
| % Change | | | | | 7.1% | 11.8% | 16.9% | 22.0% | 27.4% | 17.2% | | | | | | |
| Avg Bill | | | | | \$28.99 | \$30.26 | \$31.63 | \$33.02 | \$34.48 | | | | | | | |
| State Penitentiary | | \$123,648 | | \$123,648 | \$123,648 | \$123,648 | \$123,648 | \$123,648 | \$123,648 | \$123,648 | | | | | | |
| Unmetered | | \$11,502 | | \$11,502 | \$11,502 | \$11,502 | \$11,502 | \$11,502 | \$11,502 | \$11,502 | | | | | | |
| Total Revenue | | <u>\$471,465</u> | | <u>\$486,397</u> | <u>\$527,557</u> | <u>\$548,844</u> | <u>\$571,898</u> | <u>\$595,650</u> | <u>\$620,820</u> | | | | | | | |
| Revenue Requirement | | <u>\$460,083</u> | | <u>\$486,302</u> | <u>\$510,074</u> | <u>\$535,404</u> | <u>\$562,395</u> | <u>\$591,155</u> | <u>\$621,800</u> | | | | | | | |
| Difference | | <u>\$11,382</u> | | <u>\$95</u> | <u>\$17,483</u> | <u>\$13,439</u> | <u>\$9,503</u> | <u>\$4,495</u> | <u>(\$980)</u> | | | | | | | |
| % Change | | 2.5% | | 0.0% | 3.4% | 2.5% | 1.7% | 0.8% | -0.2% | | | | | | | |