

TO: FINANCE AND AUDIT
COMMITTEE

AGENDA ITEM

REVIEWED: MICHAEL S. LEBRUN *MSL*
GENERAL MANAGER

2

AUGUST 3, 2015

FROM: LISA BOGNUDA. *LSB*
FINANCE DIRECTOR

DATE: JULY 31, 2015

REVIEW DRAFT TOWN SEWER SYSTEM WASTEWATER RATE STUDY

ITEM

Review draft Town Sewer Wastewater Rate Study

BACKGROUND

The last Town Sewer Rate Study was completed in August 2007. The 2007 Study considered a planned treatment plant upgrade and set forth a schedule of rate increases. The last of the scheduled increases took effect on January 1, 2010. The Town Sewer customers have not had a rate increase in over five years.

The \$13M Town Southland Wastewater Facility Upgrade was completed in 2014. The District issued Certificates of Participation to fund the upgrade and debt service payments (principal and interest) are due annually. The upgraded plant requires additional operational and maintenance expenditures to maintain the facilities and additional certified operators are required to operate the plant seven days a week.

Tuckfield & Associates was retained to prepare the Town Sewer System Wastewater Rate Study. The study included a review and analysis of the Town wastewater enterprise funds, user classifications and current rate structure. Mr. Clayton Tuckfield will present his findings to the Finance and Audit Committee.

RECOMMENDATION

It is recommended that the Committee review the draft report and provide direction to Staff.

ATTACHMENT

- A. Draft Report on Town Sewer system Wastewater Rate Study

August 3, 2015

Item 2

ATTACHMENT A



**Nipomo Community
Services District**

Report on Town Sewer System

Wastewater Rate Study

For:

Nipomo Community Services District

148 South Wilson Street
Nipomo, CA 93444
(805) 929-1133

Submitted By:

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**TUCKFIELD &
ASSOCIATES**
MANAGEMENT CONSULTING

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June 29, 2015

Mr. Michael LeBrun
General Manager
Nipomo Community Services District
148 South Wilson Street
Nipomo, CA 93444

Dear Mr. LeBrun:

I am pleased to present this report on the Wastewater Rate Study for the Nipomo Community Services District (District) Town Sewer System. The wastewater rates presented in this report have been developed based on cost of service principles and industry methods that result in fair and equitable rates for the users of the wastewater system.

The study included a review and analysis of the Town wastewater enterprise funds, user classifications, and current rate structure. From the analyses, the District will need to implement wastewater rates that achieve overall revenue increases of 3.5 percent annually on each January 1 of FY 2015-16 through FY 2019-20 to fund future obligations of the wastewater system and meet debt coverage requirements.

For the first increase, wastewater rates have been priced to bring the user classifications back to cost of service to ensure equitable rates. After this, wastewater rates increase at 3.5 percent as determined in the financial plan. Tables and figures throughout the report are provided to demonstrate the calculations.

It has been a pleasure to work with District staff during the performance of this study. If there are any questions, please contact me at (949) 760-9454.

Very Truly Yours,

TUCKFIELD & ASSOCIATES



G. Clayton Tuckfield
President/Project Consultant

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**Town Sewer System
Wastewater Rate Study
NIPOMO COMMUNITY SERVICES DISTRICT**

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**Town Sewer System
Wastewater Rate Study
NIPOMO COMMUNITY SERVICES DISTRICT**

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Executive Summary

System Background

The Nipomo Community Services District (District) provides wastewater collection, treatment, and disposal service to two separate service areas with independent wastewater systems. The independent systems are known as the Town Sewer System and the Blacklake Sewer System. The focus of this study is for the Town Sewer System (System).

The Town collection system consists of 10 lift stations and about 35 miles of gravity sewer pipe ranging in size from 6 to 24 inches and 3 miles of force main ranging in size between 4 to 8 inches. The wastewater collected is treated at the Southland Wastewater Treatment Facility (Southland WWTF). The Southland WWTF has recently been upgraded and has a capacity of 0.9 mgd.

The current wastewater rate structure consists of fixed bi-monthly charges to Residential customers. Non-residential customers are charged a fixed bi-monthly charge by meter size and a volume charge for wastewater strength based on their metered water sales volume.

Customers of the System are predominately Residential (single-family and multi-family) representing over 97 percent of the number of accounts. Non-residential customers are separated by strength category (low, medium and high) with low-strength being the largest Non-residential group. Future wastewater customers are projected to grow at annual rate of 0.5 percent.

Financial Plan

The revenue and revenue requirements of the wastewater System were identified and projected to create a forward looking financial plan of the wastewater enterprise. Annual costs of the System include operation and maintenance expense (O&M), fixed asset purchases, transfer for annual capital replacement, and debt service. O&M expenses include the District's FY 2015-16 Budget expenses for the first year, then projecting future years' expenses through application of inflation factors and recognizing employee additions and other operational changes. Appendix A presents the historical and projected O&M expense detail of the System.

While the District has prepared a five-year capital improvement program (CIP) spending plan, the expenditures are paid from Fund 810 (replacement fund) and Fund 710 (capacity fund). Therefore, there is no impact to Fund 130, System operations, other than the consistent annual capital replacement transfer out of Fund 130 to Fund 810.

An analysis was performed that compared the projected revenue using the District's current wastewater rates with projected revenue requirements (costs) of the System. The analysis indicated that the current level of revenue being received is not sufficient to meet future obligations of the System during the study period. Revenue increases of 3.5 percent annually are required to adequately meet future obligations, debt coverage requirements, and financial planning criteria. The wastewater financial plan is presented in Table 4.

Proposed Wastewater Rates

The proposed wastewater rates keep the current rate structure and are updated to reflect current cost of service. For the first rate increase January 1, 2016, wastewater rates are adjusted to bring user classifications back to cost of service levels. For future rate adjustments, the wastewater rates are increased at 3.5 percent annually, following the increases in the financial plan. Table ES-1 presents the proposed wastewater rates to System customers.

Table ES-1
Proposed Wastewater Rates

| Description | Current | Forecast [1] | | | | |
|---|------------|--------------|------------|------------|------------|------------|
| | | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 |
| Residential Fixed Charges | | | | | | |
| Single Family | \$88.32 | \$89.19 | \$92.31 | \$95.54 | \$98.89 | \$102.35 |
| Multi-family | \$67.33 | \$74.39 | \$77.00 | \$79.69 | \$82.48 | \$85.37 |
| Non-Residential Meter Charges | | | | | | |
| Up to 1 inch | \$34.07 | \$35.22 | \$36.45 | \$37.73 | \$39.05 | \$40.41 |
| 1.5 | \$98.59 | \$102.24 | \$105.82 | \$109.52 | \$113.35 | \$117.32 |
| 2 | \$156.66 | \$162.55 | \$168.24 | \$174.13 | \$180.23 | \$186.53 |
| 3 | \$292.16 | \$303.29 | \$313.91 | \$324.89 | \$336.26 | \$348.03 |
| 4 | \$485.72 | \$504.34 | \$522.00 | \$540.27 | \$559.18 | \$578.75 |
| 6 | \$969.64 | \$1,006.98 | \$1,042.22 | \$1,078.70 | \$1,116.45 | \$1,155.53 |
| 8 | \$1,550.34 | \$1,610.14 | \$1,666.49 | \$1,724.82 | \$1,785.19 | \$1,847.67 |
| Non-Residential Usage Rates (\$ per HCF) | | | | | | |
| Low Strength | \$2.89 | \$3.44 | \$3.56 | \$3.69 | \$3.82 | \$3.95 |
| Medium Strength | \$3.20 | \$3.82 | \$3.96 | \$4.09 | \$4.24 | \$4.39 |
| High Strength | \$4.14 | \$4.95 | \$5.12 | \$5.30 | \$5.48 | \$5.68 |

[1] Rates effective Jan 1 of fiscal year.

Customer Bill Impacts

Table ES-2 presents the impacts to Residential bills for the proposed January 1, 2016 wastewater rates. The table shows that the single-family residential customer's bill will increase from \$88.32 to \$89.66, an increase of \$1.34, or 1.5 percent. For multi-family residential, the bill will increase from \$67.33 to \$75.05, an increase of \$7.72 or 11.5 percent.

Table ES-2
Bill Impacts with Proposed Wastewater Rates

| Classification | Jan 1, 2016 | | Percent Change |
|----------------|--------------|---------------|----------------|
| | Current Bill | Proposed Bill | |
| Single Family | \$88.32 | \$89.19 | 1.0% |
| Multi-family | \$67.33 | \$74.39 | 10.5% |

Chart ES-1 has been prepared to compare the District’s single-family residential wastewater bill with those of other communities at the same consumption. The chart indicates that with the January 1, 2016 rates, a single-family residential customer with a bi-monthly consumption of 27 HCF will experience a bill that is slightly above the middle of the communities listed.

Chart ES-1
Comparison of SFR Bi-monthly Wastewater Bills
For Rates in Effect May 2015



Note: The cities of San Luis Obispo and Paso Robles assume a volume of 7 HCF per month. The City of Arroyo Grande and Cambria CSD have volume charges calculated using the NCSO average bi-monthly water volume of 27 HCF of Town SFR customers.

Introduction

The Nipomo Community Services District (District) engaged Tuckfield & Associates in April of 2015 to conduct a comprehensive Wastewater Rate Study (Study). The District's wastewater facilities include two independent wastewater systems; one system serving the Town area and the other serving the Blacklake community known as the Town Sewer System and the Blacklake Sewer System respectively. The focus of this study is for the wastewater system identified as the Town Sewer System (System).

This Study includes development of a pro forma statement of revenues and expenses of the Town wastewater enterprise, analyses to determine the cost of service of each customer class, and design of new wastewater rates and charges.

Background

The District was formed in 1965 and covers an area of approximately 4,650 acres. The District is located in the central coastal region of the state of California in San Luis Obispo County, north of Los Angeles by approximately 175 miles. The District provides wastewater service to the Town and Blacklake service areas, each served by independent wastewater systems. Revenues and obligations of each wastewater system are accounted in separate enterprise funds of the District and each relies upon user charges to meet all financial obligations.

The System consists of wastewater collection, treatment, and disposal facilities to approximately 2,700 service connections. The collection system consists of 10 lift stations and about 35 miles of gravity sewer pipe ranging in size from 6 to 24 inches and 3 miles of force main ranging in size between 4 to 8 inches.

Wastewater treatment is provided by the District's Southland Wastewater Treatment Facility (Southland WWTF). The treatment facility has recently been upgraded with several improvements following a phased implementation plan of upgrades and improvements identified in the NCSO Southland WWTF Master Plan Amendment #1. Improvements related to Phase 1 have been completed and the treatment capacity provided by the plant is currently 0.9 mgd.

The last rate study for the System was conducted in 2007. Since the last study, the District has upgraded the Southland WWTF and constructed a 24 inch trunk sewer along Frontage Road. The Southland WWTF upgrades were financed with a \$9,795,000 2012 Series Certificates of Participation (COPs) debt issue whereas the trunk sewer was financed from District funds.

Objectives

The objectives of this study are to (1) review the current and future financial status of the Town wastewater enterprise funds, (2) make any adjustments to the revenue being received to ensure that the financial obligations are being met now and in the future, including adequate reserves and debt service coverage, and (3) design rates that generate the required revenue while being fair and equitable for its customers. Within these broad objectives, the study further sought to provide the following.

- Revenue sufficiency to fund operating and capital needs
- Appropriate levels of operating, capital, and emergency reserves

- Cost of service allocations following appropriate standards, regulations, and guidelines
- Rates that are consistent with industry practice
- Stable revenue stream similar to existing rate structure
- Ease of understanding and administration

Scope of the Study

This study includes the results of analyzing the wastewater enterprise funds related to the System. Historical trends were analyzed from data supplied by the District showing the number of customers, water consumption volumes, revenue, and revenue requirements.

Revenue requirements of the System include operation and maintenance expense, routine capital outlays, replacement transfers, debt service, and additions to reserves. Changing conditions such as additional facilities, system growth, employee additions/reductions, and non-recurring maintenance expenditures are recognized. Inflation for ongoing expenditures is included to reflect cost escalation.

The financial plan and rates developed herein are based on funding of the capital improvement plan as stated as well as estimates of operation and maintenance expenses developed from information provided by the District. Deviation from the financial plans, construction cost estimates and funding requirements, major operational changes, or other financial policy changes that were not foreseen, may result in the need for lower or higher revenue than anticipated. It is suggested that the District conduct an update to the rate study at least every three years for prudent rate planning.

Information Used in the Study

The information used in the Study includes the following.

1. Wastewater system accounts, meter sizes, and water sales volumes of wastewater customers from the District's billing information system.
2. Historical wastewater expenses and FY 2015-16 Budget revenues, expenses, and capital spending from District documents.
3. Southland WWTF influent flow and strength information for the last five years provided by the District.
4. Current wastewater rates obtained from resolutions of the District.
5. Outstanding debt service schedules of the System provided by the District.
6. Meter capacity ratios to establish Non-residential wastewater bi-monthly fixed charges from previous System rate studies.

Financial Planning

Financial planning for the wastewater enterprise includes identifying and projecting revenues and revenue requirements of the System for a five-year planning period. Estimates of revenue from various sources are compared with the projected revenue requirements. This comparison allows the review of the adequacy of existing revenue to meet annual System obligations, and provide the basis for rate adjustments. New wastewater rates and charges are created to recover all of the District's annual operating and capital costs associated with the System.

This section discusses the current wastewater rates, user classifications, revenues and revenue requirements, planned capital improvement expenditures and financing sources, and proposed revenue adjustments.

Existing Wastewater Rates

The current wastewater rates consist of fixed and variable charges to Residential and Non-residential customer groups. Residential customers are charged a fixed bi-monthly charge while Non-residential customers are charged a fixed bi-monthly charges by meter size and volume charges for their wastewater strength classification. The historical and current water rates are presented in Table 1.

Table 1
Historical and Current Bi-monthly Wastewater Rates

| Description | Jan 2007 | April 2008 | Jan 2009 | Current Jan 2010 |
|---|----------|------------|------------|---------------------|
| Residential Fixed Charges | | | | |
| Single Family | \$45.00 | \$56.53 | \$70.66 | \$88.32 |
| Multi-family | \$34.80 | \$43.09 | \$53.86 | \$67.33 |
| Non-Residential Fixed Charges | | | | |
| Up to 1 inch | \$17.39 | \$21.80 | \$27.25 | \$34.07 |
| 1 1/2 | \$49.77 | \$63.10 | \$78.87 | \$98.59 |
| 2 | \$78.95 | \$100.26 | \$125.33 | \$156.66 |
| 3 | \$147.09 | \$186.98 | \$233.73 | \$292.16 |
| 4 | \$244.41 | \$310.86 | \$388.58 | \$485.72 |
| 6 | \$487.50 | \$620.57 | \$775.71 | \$969.64 |
| 8 | \$779.32 | \$992.22 | \$1,240.27 | \$1,550.34 |
| Non-Residential Usage Rates (\$ per HCF) | | | | |
| Low Strength | \$2.89 | \$2.89 | \$2.89 | \$2.89 |
| Medium Strength | \$3.20 | \$3.20 | \$3.20 | \$3.20 |
| High Strength | \$4.14 | \$4.14 | \$4.14 | \$4.14 |

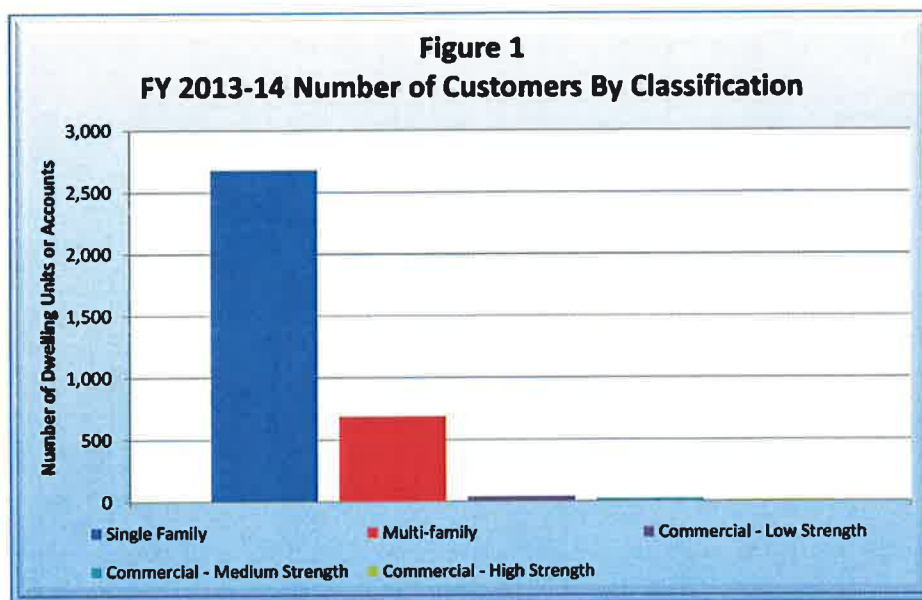
Wastewater User Classification

Existing User Classification

The District currently classifies customers as Residential and Non-residential. Residential is further classified as single-family or multi-family and Non-residential customers are further classified according to their discharge strength of low, medium, and high. Figure 1 shows the current number of customers by classification and also illustrates that Residential customers account for more than 97 percent of the total customers served by the System.

Proposed User Classification

From inspection of Figure 1, customer classes consist of single-family, multi-family, and Non-residential customers classified in to three strength categories. No changes to these classifications are proposed.



Growth Assumptions

Historical growth in the number of single-family customers between FY 2009-10 to FY 2013-14 indicates an overall growth rate of about 1 percent annually, with a similar growth rate occurring in the number of multi-family dwelling units. Commercial customer growth has been confined to the low-strength classification, reflecting a growth rate of about 0.5 percent annually. Based on the review, the increase in the number of Residential and Non-residential customer is projected a 0.5 percent annually to provide a conservative approach.

Wastewater Financial Plan

The District accounts for the revenue and revenue requirements of the System in three funds. Fund 130 accounts for the operations of the System while Fund 710 and Fund 810 relate to capital expansion and replacement respectively.

Wastewater Revenues

The District receives operating and capital revenue from several sources. Operating revenue is received into Fund 130 from rates and charges for wastewater service, interest income, and miscellaneous sources. Capital revenue sources include sewer capacity charges received into Fund 710.

Table 2 presents the projected revenue from current wastewater rates for the System. The revenue is projected by applying the current wastewater rates from Table 1 to the projected number of dwelling units or accounts and commercial volume.

Table 2
Projected Wastewater Revenues Using Existing Rates

| Line No. | Customer Classification | Forecast | | | | |
|------------------------|------------------------------|-------------|-------------|-------------|-------------|-------------|
| | | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 |
| Residential | | | | | | |
| 1 | Single Family | \$1,435,023 | \$1,442,442 | \$1,449,861 | \$1,457,280 | \$1,464,699 |
| 2 | Multi-family | \$279,958 | \$281,170 | \$282,382 | \$283,594 | \$285,210 |
| Non-Residential | | | | | | |
| 3 | Commercial - Low Strength | 63,549 | 63,549 | 63,549 | 63,549 | 63,549 |
| 4 | Commercial - Medium Strength | 43,986 | 43,986 | 43,986 | 43,986 | 43,986 |
| 5 | Commercial - High Strength | 25,301 | 25,301 | 25,301 | 25,301 | 25,301 |
| 6 | Total Projected Revenue | \$1,847,817 | \$1,856,448 | \$1,865,079 | \$1,873,710 | \$1,882,745 |

Wastewater Obligations

Revenue requirements of the System include operation and maintenance expense, Transfer to Fund 810 for replacement, and annual debt service.

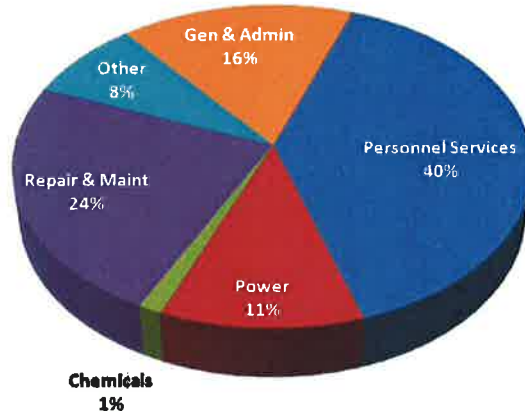
Operation and Maintenance Expense

Operation and maintenance expenses (O&M) are an on-going obligation of the wastewater system and such costs are normally met from wastewater service revenue. O&M includes the cost to operate and maintain the wastewater collection, treatment, and disposal facilities. Costs also include technical services, laboratory services, and other general and administrative expenses.

O&M has been projected recognizing the major expense categories of personnel services, electrical power, chemicals, and all other expenses. A review of historical expenses and expectations for future expenses indicates that annual increases of 3 percent in these major categories are reasonable. Appendix A provides the detailed projections of future O&M expense.

Figure 2 shows the percentage breakdown of O&M expense from each expense category for FY 2015-16.

Figure 2
FY 2015-16 Projected Town Sewer System O&M



Wastewater Capital Improvement Program

The District has prepared a wastewater capital improvement program (CIP) spending plan for years FY 2015-16 through FY 2019-20 shown in Table 3. The CIP for the improvements include those that are related to system expansion and others that replace or rehabilitate existing sewer system assets. The Sewer Collection System Master Plan and the Division Street sewer line are partially related to system expansion, and are funded 25% from Fund 710 (capacity) and 75% from Fund 810 (replacement). The Southland WWTF improvement is funded 100% from Fund 710. All other CIP is related to replacement of existing facilities and are funded from Fund 810.

Debt Service Requirements

The District has outstanding debt related to the System from two State Revolving Fund (SRF) loans issued in 2000 and in 2001, and a Series 2012 Certificates of Participation (COPs) debt issue. The SRF loans have terms of 20 years and the proceeds were used to finance certain treatment plant facilities necessary in those years. The COPs issued in 2012 financed upgrades to the Southland WWTF.

Annual debt service for the 2000 and 2001 SRF loans includes \$34,868 and \$42,180, respectively. The debt service for both SRF loans is paid from Fund 710. The 2012 COPs have an annual debt service payment that varies around \$517,000 with a term of 30 years and a retirement date in June 2042. Debt service on the 2012 COPs is an obligation of the System; however the debt service is currently paid by a transfer from Fund 880 to Fund 130 equal to the required payment. Fund 880 will be depleted in FY 2017-18 and Fund 130 will then be required to meet future payment obligations.

Table 3
Capital Improvement Program With Sources and Uses of Funds

| Line No. | Description | Budget | | Forecast | | |
|---|---|------------------|------------------|------------------|------------------|------------------|
| | | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 |
| Current Capital Improvement Projects (CIP) [1] | | | | | | |
| 1 | Manhole Rehabilitation | \$90,000 | \$90,000 | \$90,000 | \$90,000 | \$0 |
| 2 | Lift Station Rehabilitation | 100,000 | 100,000 | 100,000 | 100,000 | - |
| 3 | Prohibition Zone Sewer Extensions | - | - | 50,000 | - | - |
| 4 | Division Street, Beverly to Frontage | - | - | 390,000 | - | - |
| 5 | Southland WWTF Improvement | 100,000 | - | - | - | - |
| 6 | Sewer Collection System Master Plan | - | 200,000 | - | - | - |
| 7 | Diffuser Replacement | - | - | - | - | 150,000 |
| 8 | Proposed Asset Replacement Projects [2] | - | - | - | - | 190,000 |
| 9 | Total | \$290,000 | \$390,000 | \$630,000 | \$190,000 | \$340,000 |
| Sources and Uses of Capital Funds | | | | | | |
| 10 | Transfer In from Fund 810 | \$190,000 | \$340,000 | \$532,500 | \$190,000 | \$340,000 |
| 11 | Transfer In from Fund 710 | 100,000 | 50,000 | 147,500 | - | - |
| 12 | Capital Improvement Expansion Projects | (100,000) | (50,000) | (147,500) | - | - |
| 13 | Replacement Project Expenditures | (190,000) | (340,000) | (532,500) | (190,000) | (340,000) |
| 14 | Sources Less Uses | \$0 | \$0 | \$0 | \$0 | \$0 |

[1] CIP Source: FY 2015-16 Budget provided by the District.

[2] Assumed annual replacement equal to 5-year average.

Wastewater Financial Plan

A pro forma flow of funds statement has been prepared that includes all revenues and revenue requirements that were identified for the System. Additionally, the statement incorporates specific financial planning criteria to provide guidance to maintain the health of the fund on an on-going basis. The criteria includes maintaining an operating reserve balance, making an on-going replacement transfer, and maintaining required debt service coverage ratios required by the SRF loans and the Series 2012 COPs debt covenants.

Reserves

The target amount to be maintained as an operating reserve is expressed as a percentage, or as the number of days of operation and maintenance expense (O&M) of the enterprise. The District's policy is to maintain an operating reserve of 180 days of O&M or 50 percent of O&M expense. The operating reserve target should assist the District to maintain quality credit ratings from credit rating agencies which have provided better credit ratings to those agencies that have such reserve targets in light of recent economic conditions.

Proposed Revenue Adjustments

The pro forma statement for the System is presented in Table 4. To meet the annual obligations and the financial planning criteria set for the financial plan, it is proposed that revenue be increased by 3.5 percent annually each January 1 of the study period beginning January 1, 2016.

Table 4
Wastewater Financial Plan
Projected Sources and Uses of Funds

| Line No. | Description | Forecast | | | | | | |
|---|--|--------------------|--------------------|--------------------|--------------------|--------------------|----------|----------|
| | | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 | | |
| Sources of Funds | | | | | | | | |
| 1 | Sewer Revenues, Existing Rates [1] | \$1,847,800 | \$1,856,400 | \$1,865,100 | \$1,873,700 | \$1,882,700 | | |
| Additional Sewer Sales Revenue | | | | | | | | |
| Annualized | | | | | | | | |
| | Revenue Increase | Date of Increase | Fiscal Year | | | | | |
| 2 | 3.5% | Jan 1 | FY 2015-16 | \$32,300 | \$65,000 | \$65,300 | \$65,600 | \$65,900 |
| 3 | 3.5% | Jan 1 | FY 2016-17 | | \$33,600 | \$67,600 | \$67,900 | \$68,200 |
| 4 | 3.5% | Jan 1 | FY 2017-18 | | | \$35,000 | \$70,300 | \$70,600 |
| 5 | 3.5% | Jan 1 | FY 2018-19 | | | | \$36,400 | \$73,100 |
| 6 | 3.5% | Jan 1 | FY 2019-20 | | | | | \$37,800 |
| 7 | Total Additional Water Sales Revenue | \$32,300 | \$98,600 | \$167,900 | \$240,200 | \$315,600 | | |
| 8 | Interest Earnings [2] | \$2,800 | \$4,000 | \$4,700 | \$4,500 | \$4,100 | | |
| 9 | Transfer In from Fund 880 [3] | \$517,000 | \$517,500 | \$198,500 | \$0 | \$0 | | |
| 10 | Miscellaneous Revenues | \$500 | \$500 | \$500 | \$500 | \$500 | | |
| 11 | Total Sources of Funds | \$2,400,400 | \$2,477,000 | \$2,236,700 | \$2,118,900 | \$2,202,900 | | |
| Uses of Funds | | | | | | | | |
| 12 | Operation and Maintenance Expense | \$1,225,600 | \$1,172,000 | \$1,262,900 | \$1,300,500 | \$1,339,900 | | |
| 13 | Replacement Capital Transfer to Fund 810 | \$395,000 | \$395,000 | \$395,000 | \$395,000 | \$395,000 | | |
| 14 | Capital Outlay | \$157,700 | \$29,500 | \$30,400 | \$31,300 | \$32,200 | | |
| 15 | Existing Debt Service [4] | \$517,000 | \$517,500 | \$517,600 | \$517,400 | \$520,800 | | |
| 16 | Total Uses of Funds | \$2,295,300 | \$2,114,000 | \$2,205,900 | \$2,244,200 | \$2,287,900 | | |
| 17 | Additions (reductions) to cash | \$105,100 | \$363,000 | \$30,800 | (\$125,300) | (\$85,000) | | |
| Available Reserves (including capital funds) | | | | | | | | |
| 18 | FY beginning available cash [5] | \$850,000 | \$955,100 | \$1,318,100 | \$1,348,900 | \$1,223,600 | | |
| 19 | Additions (reductions) | \$105,100 | \$363,000 | \$30,800 | (\$125,300) | (\$85,000) | | |
| 20 | FY ending available reserves | \$955,100 | \$1,318,100 | \$1,348,900 | \$1,223,600 | \$1,138,600 | | |
| 21 | Target Reserves [6] | \$690,000 | \$600,000 | \$650,000 | \$670,000 | \$690,000 | | |
| 22 | Above (below) Target | \$265,100 | \$718,100 | \$698,900 | \$553,600 | \$448,600 | | |
| Debt Service Coverage | | | | | | | | |
| 23 | Net Revenues (w/o Capacity Charges) | \$669,000 | \$797,200 | \$783,000 | \$826,100 | \$871,500 | | |
| 24 | Annual Debt Service [7] | \$594,049 | \$594,549 | \$594,649 | \$594,449 | \$597,849 | | |
| 25 | Coverage w/o Capacity Charges | 113% | 134% | 132% | 139% | 146% | | |
| 26 | Coverage with Capacity Charges | 127% | 149% | 147% | 154% | 161% | | |

[1] Projected using the existing rates. Changes in rate based revenues is due to customer and demand growth.

[2] Interest earnings on the average fund balance calculated at 0.35%.

[3] Sinking fund transfer from Fund 880 used to pay for 2012 COPs until the funds are depleted.

[4] Debt service on the 2012 Certificates of Participation only.

[5] The available FY 2015-16 cash balance from the current District Budget.

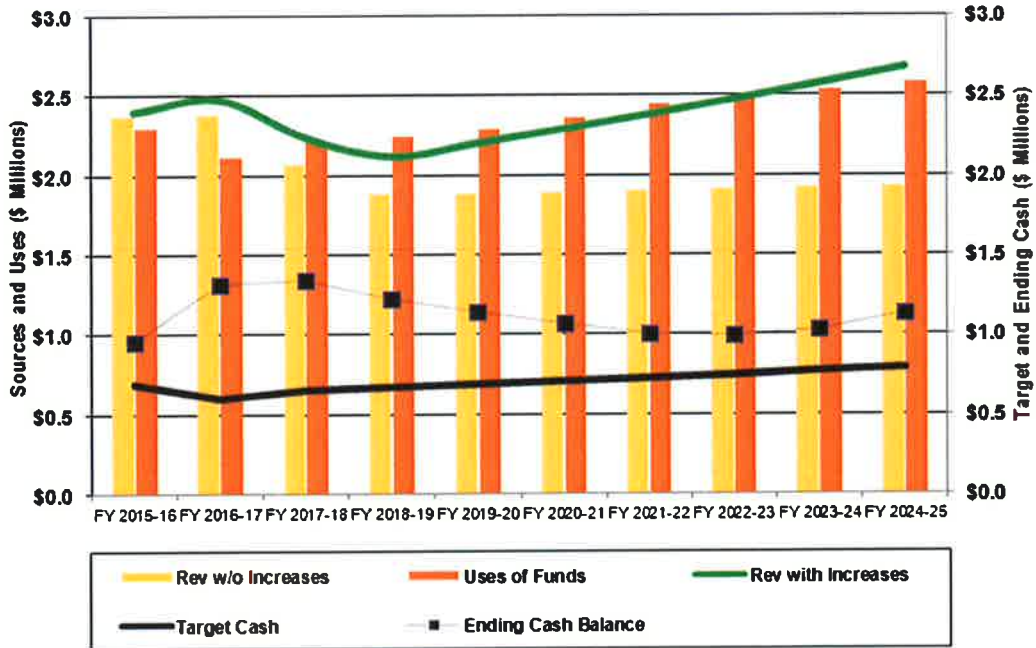
[6] Target reserve estimated at 180 days of operation and maintenance expense including capital outlay.

[7] Includes SRF debt service paid from Fund 710 - Sewer Capacity Fund.

A graphical depiction of the financial plan is presented in Figure 3 below, expanded for a 10-year period. The figure shows that current revenues (without increases) are sufficient initially to meet annual obligations due to

the transfer from Fund 880 to pay for the 2012 COPs debt service. However, once the funds from Fund 880 are depleted, the 3.5 percent revenue increases are required to meet the obligations of the fund. With the revenue increases, the fund meets the planning criteria near the end of the 10-year period.

Figure 3
Wastewater Financial Plan



Cost of Service

This section of the report discusses the allocation of the System's operating and capital costs to the users of the wastewater system. Once cost responsibility is assigned to each customer classification, the current revenue received from each classification can be compared with its cost of service to evaluate any inequities of the current rate structure and rates, which ultimately provides the basis for proposed rate adjustments.

Costs of Service to be Allocated

The annual revenue requirement, less miscellaneous revenue credits, for a representative year in the study period is called the Test Year, and the annual costs for this year are defined as the cost of providing service. For this Study the Test Year is FY 2015-16, and the annual costs of the wastewater system for this year will be used to evaluate the fairness and equity of the current wastewater rates and will form the basis for proposed rates.

The cost of service consists of O&M expense, costs associated with annual replacement, and other capital costs. The total cost to be recovered from the users of the wastewater system is presented in Table 5. As shown in the table, revenue from other revenue sources is deducted from the annual costs. Certain adjustments are made to account for changes to cash balances and mid-year rate increases to ensure wastewater rates and charges are set appropriately.

Table 5
Costs to be Recovered From Rates for FY 2015-16

| Line No. | Description | Total Cost |
|---|--|--------------------|
| Revenue Requirements | | |
| 1 | Operation and Maintenance Expense | \$1,225,600 |
| 2 | Replacement Capital Transfer to Fund 810 | \$395,000 |
| 3 | Existing Debt | \$517,000 |
| 4 | Capital Outlay | \$157,700 |
| 5 | Subtotal | \$2,295,300 |
| Less Revenue Requirements Met From Other Sources | | |
| 6 | Interest Earnings | (\$2,800) |
| 7 | Transfer In from Fund 880 | (\$517,000) |
| 8 | Miscellaneous Revenues | (\$500) |
| 9 | Subtotal | (\$520,300) |
| Adjustments | | |
| 10 | Adjustments for Annual Cash Balance | \$105,100 |
| 11 | Adjustments to Annualize Rate Increase | \$32,400 |
| 12 | Subtotal | \$137,500 |
| Total Costs to be Recovered | | \$1,912,500 |

To allocate the costs of providing service to the users of the wastewater system, costs need to first be allocated to wastewater parameters based on the design of the wastewater facilities.

Cost Allocation to Wastewater Parameters

The cost allocation parameters for wastewater service are wastewater flow, BOD (bio-chemical oxygen demand), and SS (suspended solids), capacity, customer, collection, and general costs. Test Year operating and capital costs are assigned to each parameter based on the operation and design of the facilities. The allocation of Test Year operating and capital costs are used in calculating the unit costs of service.

Unit Costs of Service

Each customer classification’s responsibility for a portion of cost of service is established through developing unit costs of service for each of the wastewater parameters identified above. Costs of service are then distributed to each user classification by identifying how each group uses the wastewater system. Use of the wastewater system by each customer classification is determined by developing units of service.

The units of service for each customer classification are provided in Table 6 below. The units of service for wastewater flow were projected from an analysis of the wastewater treatment plant influent flow information for FY 2013-14. The table does not describe any responsibility for infiltration/inflow (I/I) because the AECOM Southland Wastewater Treatment Master Plan Amendment #1 found that there was no indication of significant I/I influence on the WWTF flows.

Table 6
FY 2015-16 Units of Service

| Line No. | Customer Class | Water | Return | Contributed | Strength | | | | Capacity Eq. Meters | Customer Eq. Bills | Collection HCF/Day |
|------------------------|------------------------------|--------------------|-------------|----------------|-------------|------------|----------------|----------------|------------------------|-----------------------|-----------------------|
| | | Consumption HCF | Factor % | Volume HCF | BOD mg/l | SS mg/l | BOD lbs | SS lbs | | | |
| Residential | | | | | | | | | | | |
| 1 | Single Family | 439,950 | 49% | 217,048 | 410 | 410 | 555,507 | 555,507 | 2,708 | 16,248 | 595 |
| 2 | Multi-family | 52,782 | 76% | 40,318 | 410 | 410 | 103,188 | 103,188 | 693 | 4,158 | 110 |
| Non-Residential | | | | | | | | | | | |
| 3 | Commercial - Low Strength | 16,739 | 85% | 14,268 | 410 | 410 | 36,516 | 36,516 | 76 | 234 | 39 |
| 4 | Commercial - Medium Strength | 10,676 | 85% | 9,100 | 660 | 660 | 37,491 | 37,491 | 49 | 144 | 25 |
| 5 | Commercial - High Strength | 5,253 | 85% | 4,477 | 1,650 | 1,160 | 46,118 | 32,422 | 18 | 60 | 12 |
| 6 | Total System | 525,400 | | 285,211 | | | 778,819 | 765,124 | 3,544 | 20,844 | 781 |

Table 7 presents the unit costs of providing service for the System. Unit costs are determined by taking the operating and capital costs allocated to each parameter discussed above and dividing those costs by the units of service from Table 6.

Table 7
FY 2015-16 Development of Unit Costs

| Line No. | Description | Total | Strength | | | | | Collection |
|--------------------------|-------------------------------|--------------------|------------------|------------------|------------------|------------------|-----------------|-------------------|
| | | | Flow | BOD | SS | Capacity | Customer | |
| Operating Expense | | | | | | | | |
| 1 | Operating Expense | \$1,778,300 | \$105,160 | \$102,067 | \$102,067 | \$662,610 | \$33,141 | \$773,254 |
| 2 | Met from Other Sources | (3,300) | (196) | (189) | (189) | (1,230) | (61) | (1,435) |
| 3 | Adjustments | 137,500 | 8,131 | 7,892 | 7,892 | 51,234 | 2,562 | 59,789 |
| 4 | Total Costs of Service | \$1,912,500 | \$113,095 | \$109,770 | \$109,770 | \$712,614 | \$35,642 | \$831,608 |
| 5 | Units of Service | | 285,211 | 778,819 | 765,124 | 3,544 | 20,844 | 781 |
| 6 | Unit Costs of Service | | \$0.3965 | \$0.1409 | \$0.1435 | \$201.05 | \$1.71 | \$1,064.25 |
| | Units of Measure | | HCF | lbs | lbs | Eq. Meters | Eq. Bills | HCF/Day |

User Class Costs

The unit costs from Table 7 are applied to each customer classifications' flow, strength, and customer units of service from Table 6 to establish user class costs. The cost responsibility of each class is summarized in Table 8 below, with detailed cost assignment provided in Appendix A.

Table 8
Comparison of FY 2015-16 Cost of Service with
Projected Revenue Using Current Rates

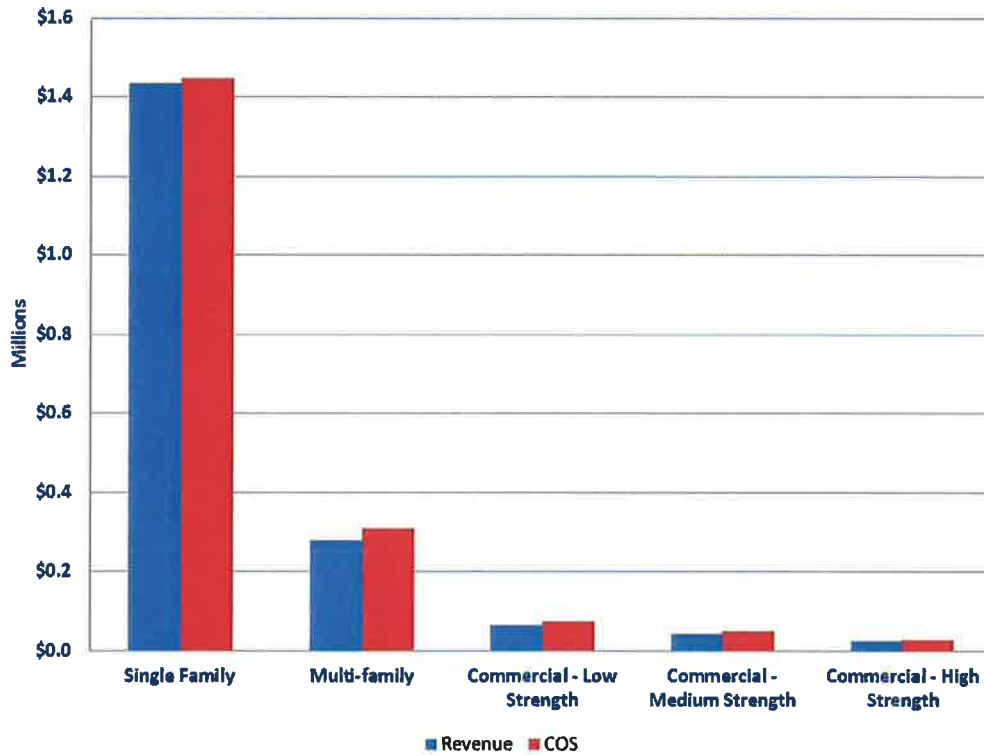
| Line No. | Customer Class | COS Allocation | Projected Revenue ^[1] | Indicated Revenue Increase | Percent Revenue Increase |
|------------------------|------------------------------|--------------------|----------------------------------|----------------------------|--------------------------|
| Residential | | | | | |
| 1 | Single Family | \$1,449,157 | \$1,435,000 | \$14,157 | 1.0% |
| 2 | Multi-family | \$309,332 | \$280,000 | \$29,332 | 10.5% |
| Non-Residential | | | | | |
| 3 | Commercial - Low Strength | \$73,365 | \$63,500 | \$9,865 | 15.5% |
| 4 | Commercial - Medium Strength | \$50,983 | \$44,000 | \$6,983 | 15.9% |
| 5 | Commercial - High Strength | \$29,664 | \$25,300 | \$4,364 | 17.2% |
| 6 | Total System | \$1,912,500 | \$1,847,800 | \$64,700 | 3.5% |

^[1] Projected revenue using the existing rates.

From inspection of Table 8, the Residential classifications have the largest assignment of costs and are responsible for 92 percent of the total cost of service. Additionally, the table shows the overall increase in revenue required of 3.5 percent, to be derived from the user classes in varying percentages.

Figure 4 compares the current revenue received from each user class with the allocated cost of service from Table 8. As shown in the figure, Residential customers dominate the responsibility for the cost of providing service. The difference in the column heights between revenue and cost of service (blue vs. red) indicates how well a user classification’s current rates are recovering the cost of service.

Figure 4
Comparison of Projected Revenue Using the Current Rates
with Allocated FY 2015-16 Test Year Cost of Service



Rate Design

The cost of service analyses described in the previous section provides the basis for wastewater rate design. The emphasis on the design of rates is to achieve fairness, and ensuring that each customer class pays its fair share of costs. Rates should be simple to administer, easy to understand, and comply with regulatory requirements.

The inequities in the current wastewater rates, shown in Table 8, are corrected with the design of the proposed wastewater rates. This section describes how wastewater rates and charges are designed and also includes the proposed schedule of wastewater rates for implementation.

Residential Customers

The current rate structure for single-family and multi-family customers is bi-monthly flat charges. This rate structure provides a stable revenue stream for the utility at time when water sales and discharge volumes are uncertain for the District. As noted in the cost of service analyses, the Residential classes are responsible for about 92 percent of the cost of service.

The proposed wastewater rates for Residential customers maintain the current rate structure and are designed as bi-monthly flat rates charged to each dwelling unit. Table 9 provides the calculations of the bi-monthly fixed charge for the Test Year cost of service. The total cost of service of each Residential class is divided by the number of projected dwelling units for FY 2015-16.

Table 9
Design of Residential Bi-monthly Fixed Charge
FY 2015-16

| Customer Classification | Capacity & Customer Costs | Flow, BOD SS, & Coll Costs | Total Cost of Service | Number of Dwelling Units | Bi-monthly Fixed Charge |
|-------------------------|---------------------------|----------------------------|-----------------------|--------------------------|-------------------------|
| Single Family | \$572,236 | \$876,921 | \$1,449,157 | 2,708 | \$89.19 |
| Multi-family | \$146,440 | \$162,892 | \$309,332 | 693 | \$74.39 |

Non-Residential Customers

The current Non-residential rate structure consists of bi-monthly fixed charges by meter size and uniform volume rates by strength category. The design of proposed Non-residential wastewater rates follows similar rate setting practices as the current rate structure.

The proposed fixed charges recover the capacity and customer costs of service. Capacity costs are recovered based on the demand placed on the system from Non-residential customers, which is reflected by the meter size installed at the customer location. Customer costs are recovered based on the number of bills issued. Table 10 below presents the design of the proposed bi-monthly fixed charges for Non-residential customers for FY 2015-16.

Non-residential volume rates are designed to recover the costs of service related to flow, BOD, SS, and collection wastewater parameters. These costs of service are recovered through a uniform volume charge unique to each strength category. The costs are divided by the projected FY 2015-16 water sales volume (billable volume) of each classification to yield a charge per hundred cubic feet (\$/HCF). The volume charges increase with higher strength user classes because the cost to treat wastewater from those customers is greater

due to their higher strength loadings, defined in Table 6. The design of the proposed Non-residential volume rates for FY 2015-16 are presented in Table 11.

Table 10
Design of Bi-monthly Non-Residential Fixed Charges
FY 2015-16

| Meter Size | Bi-monthly Capacity Charge ^[1] | Meter Capacity Ratio | Bi-monthly Meter Charge | Bi-monthly Customer Charge ^[1] | Total Bi-monthly Charge |
|--------------|---|----------------------|-------------------------|---|-------------------------|
| inches | | | | | |
| Up to 1 inch | \$33.51 | 1.0 | \$33.51 | \$1.71 | \$35.22 |
| 1.5 | \$33.51 | 3.0 | \$100.53 | \$1.71 | \$102.24 |
| 2.0 | \$33.51 | 4.8 | \$160.84 | \$1.71 | \$162.55 |
| 3.0 | \$33.51 | 9.0 | \$301.58 | \$1.71 | \$303.29 |
| 4.0 | \$33.51 | 15.0 | \$502.63 | \$1.71 | \$504.34 |
| 6.0 | \$33.51 | 30.0 | \$1,005.27 | \$1.71 | \$1,006.98 |
| 8.0 | \$33.51 | 48.0 | \$1,608.43 | \$1.71 | \$1,610.14 |

^[1] From Table 7.

Table 11
Design of Non-Residential Volume Rates
FY 2015-16

| Customer Classification | Capacity & Customer Costs | Flow, BOD SS, & Coll Costs | Total Cost of Service | Billable Volume HCF | Commodity Rate \$/HCF |
|------------------------------|---------------------------|----------------------------|-----------------------|---------------------|-----------------------|
| Commercial - Low Strength | \$15,720 | \$57,645 | \$73,365 | 16,739 | \$3.44 |
| Commercial - Medium Strength | \$10,178 | \$40,804 | \$50,983 | 10,676 | \$3.82 |
| Commercial - High Strength | \$3,681 | \$25,982 | \$29,664 | 5,253 | \$4.95 |
| Total Cost of Service | \$748,256 | \$1,164,244 | \$1,912,500 | | |

Proposed Wastewater Rates

Table 12 presents the proposed wastewater rates for the System for the next five years. The table presents the current rates, the costs of service rates for implementation January 1, 2016, and future rates that escalate from FY 2015-16 by the percentages identified in Table 4 of 3.5 percent annually.

Table 12
Proposed Wastewater Rates

| Description | Current | Forecast [1] | | | | |
|---|------------|--------------|------------|------------|------------|------------|
| | | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 |
| Residential Fixed Charges | | | | | | |
| Single Family | \$88.32 | \$89.19 | \$92.31 | \$95.54 | \$98.89 | \$102.35 |
| Multi-family | \$67.33 | \$74.39 | \$77.00 | \$79.69 | \$82.48 | \$85.37 |
| Non-Residential Meter Charges | | | | | | |
| Up to 1 inch | \$34.07 | \$35.22 | \$36.45 | \$37.73 | \$39.05 | \$40.41 |
| 1.5 | \$98.59 | \$102.24 | \$105.82 | \$109.52 | \$113.35 | \$117.32 |
| 2 | \$156.66 | \$162.55 | \$168.24 | \$174.13 | \$180.23 | \$186.53 |
| 3 | \$292.16 | \$303.29 | \$313.91 | \$324.89 | \$336.26 | \$348.03 |
| 4 | \$485.72 | \$504.34 | \$522.00 | \$540.27 | \$559.18 | \$578.75 |
| 6 | \$969.64 | \$1,006.98 | \$1,042.22 | \$1,078.70 | \$1,116.45 | \$1,155.53 |
| 8 | \$1,550.34 | \$1,610.14 | \$1,666.49 | \$1,724.82 | \$1,785.19 | \$1,847.67 |
| Non-Residential Usage Rates (\$ per HCF) | | | | | | |
| Low Strength | \$2.89 | \$3.44 | \$3.56 | \$3.69 | \$3.82 | \$3.95 |
| Medium Strength | \$3.20 | \$3.82 | \$3.96 | \$4.09 | \$4.24 | \$4.39 |
| High Strength | \$4.14 | \$4.95 | \$5.12 | \$5.30 | \$5.48 | \$5.68 |

[1] Rates effective Jan 1 of fiscal year.

Table 13 demonstrates that if the proposed rates for FY 2015-16 were applied to the projected number of dwelling units, customers, and water sales volume, that 100 percent cost recovery would be achieved.

Impact Analysis

An impact analysis was performed to evaluate the change in customer bills that would occur from the implementation of the proposed wastewater rates. The impact to bills of each customer classification is provided in Table 14. For Residential customers, the bills shown in Table 14 are also readily identified from the schedule of proposed wastewater rates because they are flat rates. The single-family customer bill will increase by 1.5 percent whereas the multi-family customer bill will increase by 11.5 percent.

The impact to Non-Residential bills depends upon the meter size and strength category. Using the average water consumption of each meter size, the bi-monthly bills were calculated as shown in Table 14. The change in Non-Residential customer bills range from an increase of 7.5 percent for a 3 inch meter low-strength customer to an increase of 8.8 percent for a 1.5 inch high-strength customer. Appendix B provides additional example Non-residential bill calculations at various consumption levels for 1 inch and 2 inch meter sizes, with 1 inch being the most common.

Table 13
Comparison of FY 2015-16 Cost of Service with Revenue Using Proposed Rates

| Line No. | Customer Class | COS Allocation | Proposed Rates | | Units of Service | | | Total Revenue | Percent Cost Recovery |
|------------------------|------------------------------|----------------|-----------------------------|---------------|------------------|-----------------|-----------------|---------------|-----------------------|
| | | | Fixed ⁽¹⁾ Charge | Volume Charge | Dwelling Units | Equiv. Customer | Billable Volume | | |
| Residential | | | \$/HCF | | | | | | |
| 1 | Single Family | \$1,449,157 | \$89.19 | | 2,708 | | \$1,449,157 | 100.0% | |
| 2 | Multi-family | \$309,332 | \$74.39 | | 693 | | \$309,332 | 100.0% | |
| Non-Residential | | | | | | | | | |
| 3 | Commercial - Low Strength | \$73,365 | \$35.22 | \$3.44 | | 446.4 | 16,739 | \$73,365 | 100.0% |
| 4 | Commercial - Medium Strength | \$50,983 | \$35.22 | \$3.82 | | 289.0 | 10,676 | \$50,983 | 100.0% |
| 5 | Commercial - High Strength | \$29,664 | \$35.22 | \$4.95 | | 104.5 | 5,253 | \$29,664 | 100.0% |
| 6 | Total System | \$1,912,500 | | | | | \$1,912,500 | | |

⁽¹⁾ Charge is bi-monthly.

Table 14
Bill Impacts with Proposed Wastewater Rates

| Classification | Average Water Use | Current Bill | | | Jan 1 FY 2015-16 Proposed Bill | | | Percent Change |
|-------------------------------------|-------------------|----------------|---------------|--------------|--------------------------------|---------------|---------------|----------------|
| | | Service Charge | Volume Charge | Current Bill | Service Charge | Volume Charge | Proposed Bill | |
| Residential | | HCF | | | | | | |
| Single Family | | | | \$88.32 | | | \$89.19 | 1.0% |
| Multi-family | | | | \$67.33 | | | \$74.39 | 10.5% |
| Non-Residential - 1" Meter | | | | | | | | |
| Commercial - Low Strength | 50 | \$34.07 | \$144.50 | \$178.57 | \$35.22 | \$172.19 | \$207.41 | 16.1% |
| Commercial - Medium Strength | 70 | \$34.07 | \$224.00 | \$258.07 | \$35.22 | \$267.54 | \$302.76 | 17.3% |
| Commercial - High Strength | 35 | \$34.07 | \$144.90 | \$178.97 | \$35.22 | \$173.12 | \$208.34 | 16.4% |
| Non-Residential - 1.5" Meter | | | | | | | | |
| Commercial - Low Strength | 80 | \$98.59 | \$231.20 | \$329.79 | \$102.24 | \$275.50 | \$377.74 | 14.5% |
| Commercial - Medium Strength | 65 | \$98.59 | \$208.00 | \$306.59 | \$102.24 | \$248.43 | \$350.67 | 14.4% |
| Commercial - High Strength | 200 | \$98.59 | \$828.00 | \$926.59 | \$102.24 | \$989.24 | \$1,091.47 | 17.8% |
| Non-Residential - 2" Meter | | | | | | | | |
| Commercial - Low Strength | 170 | \$156.66 | \$491.30 | \$647.96 | \$162.55 | \$585.44 | \$747.99 | 15.4% |
| Commercial - Medium Strength | 100 | \$156.66 | \$320.00 | \$476.66 | \$162.55 | \$382.21 | \$544.76 | 14.3% |
| Commercial - High Strength | 200 | \$156.66 | \$828.00 | \$984.66 | \$162.55 | \$989.24 | \$1,151.79 | 17.0% |
| Non-Residential - 3" Meter | | | | | | | | |
| Commercial - Low Strength | 200 | \$292.16 | \$578.00 | \$870.16 | \$303.29 | \$688.75 | \$992.04 | 14.0% |

Wastewater Rate Survey

A rate survey was conducted for select wastewater service providers in San Luis Obispo County. The rate survey is intended to provide a comparison of an agency’s pricing policies with agencies providing a similar service. The survey was conducted in May 2015 and reflects the wastewater rates that were either effective at that time or were known to increase July 1, 2015.

Chart 1 compares the bi-monthly wastewater bills for an average single-family customer with a 5/8” meter and consumption reflective of the average Town single-family wastewater customer’s water use of 27 HCF per bi-month, except where noted below the chart. Most of the wastewater utilities listed have fixed charges for single-family customers, except for Cambria CSD, and the cities of San Luis Obispo, Paso Robles, and Arroyo Grande.

Chart 1
Comparison of SFR Bi-monthly Wastewater Bills
For Rates in Effect May 2015



Note: The cities of San Luis Obispo and Paso Robles assume a volume of 7 HCF per month. The City of Arroyo Grande and Cambria CSD have volume charges calculated using the NCSO average bi-monthly water volume of 27 HCF of Town SFR customers.

Appendix A

Technical Appendix

Detailed O&M projections and Cost of Service Allocation tables are provided in Appendix A.

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Appendix A-1

Historical and Projected Operation and Maintenance Expense, Replacement and Capital Outlay

| Description | Historical | | | | Estimated | | | | Budget | | | | Forecast | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|--|----------|--|--|--|
| | FY 2010-11 | FY 2011-12 | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 | FY 2016-17 | FY 2017-18 | FY 2018-19 | FY 2019-20 | | | | | | |
| OPERATION AND MAINTENANCE | | | | | | | | | | | | | | | | |
| Personnel Services [1] | \$133,531 | \$140,860 | \$148,543 | \$223,313 | \$303,500 | \$403,400 | \$427,700 | \$496,400 | \$511,200 | \$526,800 | | | | | | |
| Electricity - Pumps and Blowers | 125,160 | 128,616 | 100,177 | 131,872 | 124,500 | 130,000 | 133,900 | 137,900 | 142,000 | 146,300 | | | | | | |
| Chemicals | \$5,523 | \$7,958 | \$8,977 | \$0 | \$3,000 | \$15,000 | \$15,500 | \$16,000 | \$16,500 | \$17,000 | | | | | | |
| Lab Tests and Sampling | 29,840 | 36,527 | 32,899 | 34,948 | 32,000 | 35,000 | 36,100 | 37,200 | 38,300 | 39,400 | | | | | | |
| Operating Supplies | \$25,129 | \$21,565 | \$15,741 | \$18,231 | \$35,000 | \$40,000 | \$41,200 | \$42,400 | \$43,700 | \$45,000 | | | | | | |
| Outside Services | 1,279 | 1,497 | 2,128 | 26,694 | 60,000 | 33,000 | 34,000 | 35,000 | 36,100 | 37,200 | | | | | | |
| Permits and Operating Fees | \$5,468 | \$12,015 | \$9,044 | \$10,342 | \$13,000 | \$13,000 | \$13,400 | \$13,800 | \$14,200 | \$14,600 | | | | | | |
| Repairs and Maintenance | 84,859 | 68,198 | 53,052 | 42,234 | 40,000 | 275,000 | 180,300 | 185,700 | 191,300 | 197,000 | | | | | | |
| Other Operations and Maintenance Exp | \$48,766 | \$46,484 | \$39,899 | \$27,023 | \$26,900 | \$31,470 | \$32,660 | \$33,700 | \$34,800 | \$35,900 | | | | | | |
| Total O&M Expense | \$459,555 | \$463,720 | \$419,460 | \$514,657 | \$637,900 | \$975,879 | \$914,700 | \$968,100 | \$1,028,160 | \$1,059,200 | | | | | | |
| GENERAL AND ADMINISTRATIVE | | | | | | | | | | | | | | | | |
| Personnel Services | \$141,559 | \$150,296 | \$148,816 | \$89,261 | \$57,765 | \$58,175 | \$59,900 | \$61,700 | \$63,400 | \$65,600 | | | | | | |
| Computer Expense | 11,742 | 10,062 | 13,354 | 15,834 | 13,000 | 15,300 | 15,800 | 16,300 | 16,800 | 17,300 | | | | | | |
| Newsletters and Mailers | \$0 | \$0 | \$1,215 | \$623 | \$1,000 | \$2,520 | \$2,600 | \$2,700 | \$2,800 | \$2,900 | | | | | | |
| Postage | 4,768 | 5,281 | 5,875 | 6,783 | 6,700 | 6,870 | 7,100 | 7,300 | 7,500 | 7,700 | | | | | | |
| Public Notices | \$0 | \$0 | \$825 | \$92 | \$0 | \$1,000 | \$1,000 | \$1,000 | \$1,000 | \$1,000 | | | | | | |
| Other General and Administrative | 35,256 | 34,940 | 30,340 | 31,934 | 64,411 | 64,395 | 66,300 | 68,100 | 70,000 | 72,000 | | | | | | |
| Transfers - Administration | \$90,005 | \$92,814 | \$80,644 | \$86,265 | \$78,949 | \$101,513 | \$104,600 | \$107,700 | \$110,900 | \$114,200 | | | | | | |
| Total G&A Expenses | \$283,330 | \$293,393 | \$281,660 | \$236,782 | \$221,825 | \$248,773 | \$257,300 | \$264,800 | \$272,400 | \$286,700 | | | | | | |
| Total O&M Expenses | \$742,885 | \$757,113 | \$691,520 | \$745,440 | \$859,725 | \$1,225,643 | \$1,172,000 | \$1,232,900 | \$1,300,560 | \$1,339,900 | | | | | | |
| Replacement Capital Transfer to Fund 810 | 383,500 | 395,000 | 395,000 | 395,000 | 395,000 | 395,000 | 395,000 | 395,000 | 395,000 | 395,000 | | | | | | |
| Capital Outlay | 0 | 0 | 22,666 | 32,500 | 33,200 | 157,700 | 29,500 | 30,400 | 31,300 | 32,200 | | | | | | |
| Total O&M and Capital Expenses | \$1,126,385 | \$1,152,113 | \$1,109,185 | \$1,172,940 | \$1,287,925 | \$1,770,343 | \$1,596,500 | \$1,668,300 | \$1,726,800 | \$1,767,100 | | | | | | |

[1] Includes a Utility Worker upgrade to Utility Operator in FY 2016-17 and a new Utility Worker in FY 2017-18.

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Appendix A-2 Allocation of FY 2015-16 Costs to Customer Classes

| Line No. | Description | Allocated Total Cost | Strength | | | | | Customer | Collection |
|-------------------------------------|---|----------------------|------------------|------------------|------------------|------------------------|---------------------|-----------------------|------------|
| | | | Flow | BOD | SS | Capacity | | | |
| 1 | Unit Costs of Service Units of Measure | | \$0.3965 HCF | \$0.1409 lbs | \$0.1435 lbs | \$201.05 Eq. Meters | \$1.71 Eq. Bills | \$1,064.25 HCF/Day | |
| Single Family | | | | | | | | | |
| 2 | Units of Service | | 217,048 | 555,507 | 555,507 | 2,708 | 16,248 | 595 | |
| 3 | Allocated Cost of Service | \$1,449,157 | \$86,067 | \$78,296 | \$79,697 | \$544,453 | \$27,783 | \$632,862 | |
| Multi-family | | | | | | | | | |
| 4 | Units of Service | | 40,318 | 103,188 | 103,188 | 693 | 4,158 | 110 | |
| 5 | Allocated Cost of Service | \$309,332 | \$15,987 | \$14,544 | \$14,804 | \$139,330 | \$7,110 | \$117,557 | |
| Commercial - Low Strength | | | | | | | | | |
| 6 | Units of Service | | 14,268 | 36,516 | 36,516 | 76 | 234 | 39 | |
| 7 | Allocated Cost of Service | \$73,365 | \$5,658 | \$5,147 | \$5,239 | \$15,320 | \$400 | \$41,601 | |
| Commercial - Medium Strength | | | | | | | | | |
| 8 | Units of Service | | 9,100 | 37,491 | 37,491 | 49 | 144 | 25 | |
| 9 | Allocated Cost of Service | \$50,983 | \$3,608 | \$5,284 | \$5,379 | \$9,932 | \$246 | \$26,533 | |
| Commercial - High Strength | | | | | | | | | |
| 10 | Units of Service | | 4,477 | 46,118 | 32,422 | 18 | 60 | 12 | |
| 11 | Allocated Cost of Service | \$29,664 | \$1,775 | \$6,500 | \$4,652 | \$3,579 | \$103 | \$13,055 | |
| 12 | Total Costs of Service | \$1,912,500 | \$113,095 | \$109,770 | \$109,770 | \$712,614 | \$35,642 | \$831,608 | |

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Appendix B

Non-Residential Bill Impacts

This section provides additional calculations of Non-Residential customer bills at various water volumes.

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Appendix B-1 Non-Residential Customer Bill Impacts - 1" Meter

| Description | Current | Jan 1 FY 2015-16 | Percent Increase | Jan 1 FY 2016-17 | Percent Increase |
|-------------------------------------|-----------------|---------------------|---------------------|---------------------|---------------------|
| Low Strength with 1"meter | | | | | |
| 25% of Avg Bill: 10 HCF | \$62.97 | \$69.66 | 10.6% | \$72.09 | 3.5% |
| 50% of Avg Bill: 30 HCF | \$120.77 | \$138.53 | 14.7% | \$143.38 | 3.5% |
| Avg Bill: 50 HCF | \$178.57 | \$207.41 | 16.1% | \$214.66 | 3.5% |
| 125% of Avg Bill: 60 HCF | \$207.47 | \$241.84 | 16.6% | \$250.31 | 3.5% |
| 150% of Avg Bill: 80 HCF | \$265.27 | \$310.72 | 17.1% | \$321.59 | 3.5% |
| Medium Strength with 1"meter | | | | | |
| 25% of Avg Bill: 20 HCF | \$98.07 | \$111.66 | 13.9% | \$115.57 | 3.5% |
| 50% of Avg Bill: 40 HCF | \$162.07 | \$188.10 | 16.1% | \$194.68 | 3.5% |
| Avg Bill: 70 HCF | \$258.07 | \$302.76 | 17.3% | \$313.36 | 3.5% |
| 125% of Avg Bill: 90 HCF | \$322.07 | \$379.20 | 17.7% | \$392.48 | 3.5% |
| 150% of Avg Bill: 110 HCF | \$386.07 | \$455.65 | 18.0% | \$471.59 | 3.5% |
| High Strength with 1"meter | | | | | |
| 25% of Avg Bill: 10 HCF | \$75.47 | \$84.68 | 12.2% | \$87.64 | 3.5% |
| 50% of Avg Bill: 20 HCF | \$116.87 | \$134.14 | 14.8% | \$138.84 | 3.5% |
| Avg Bill: 35 HCF | \$178.97 | \$208.34 | 16.4% | \$215.63 | 3.5% |
| 125% of Avg Bill: 40 HCF | \$199.67 | \$233.07 | 16.7% | \$241.22 | 3.5% |
| 150% of Avg Bill: 50 HCF | \$241.07 | \$282.53 | 17.2% | \$292.42 | 3.5% |

a. New rates effective Jan 1 of fiscal year.

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Appendix B-2

Non-Residential Customer Bill Impacts - 2" Meter

| Description | Current | Jan 1 FY 2015-16 | Percent Increase | Jan 1 FY 2016-17 | Percent Increase |
|-------------------------------------|-----------------|---------------------|---------------------|---------------------|---------------------|
| Low Strength with 2"meter | | | | | |
| 25% of Avg Bill: 40 HCF | \$272.26 | \$300.30 | 10.3% | \$310.81 | 3.5% |
| 50% of Avg Bill: 90 HCF | \$416.76 | \$472.49 | 13.4% | \$489.03 | 3.5% |
| Avg Bill: 170 HCF | \$647.96 | \$747.99 | 15.4% | \$774.17 | 3.5% |
| 125% of Avg Bill: 210 HCF | \$763.56 | \$885.74 | 16.0% | \$916.74 | 3.5% |
| 150% of Avg Bill: 260 HCF | \$908.06 | \$1,057.92 | 16.5% | \$1,094.95 | 3.5% |
| Medium Strength with 2"meter | | | | | |
| 25% of Avg Bill: 30 HCF | \$252.66 | \$277.21 | 9.7% | \$286.92 | 3.5% |
| 50% of Avg Bill: 50 HCF | \$316.66 | \$353.66 | 11.7% | \$366.03 | 3.5% |
| Avg Bill: 100 HCF | \$476.66 | \$544.76 | 14.3% | \$563.83 | 3.5% |
| 125% of Avg Bill: 130 HCF | \$572.66 | \$659.42 | 15.2% | \$682.50 | 3.5% |
| 150% of Avg Bill: 150 HCF | \$636.66 | \$735.86 | 15.6% | \$761.62 | 3.5% |
| High Strength with 2"meter | | | | | |
| 25% of Avg Bill: 50 HCF | \$363.66 | \$409.86 | 12.7% | \$424.21 | 3.5% |
| 50% of Avg Bill: 100 HCF | \$570.66 | \$657.17 | 15.2% | \$680.17 | 3.5% |
| Avg Bill: 200 HCF | \$984.66 | \$1,151.79 | 17.0% | \$1,192.10 | 3.5% |
| 125% of Avg Bill: 250 HCF | \$1,191.66 | \$1,399.10 | 17.4% | \$1,448.07 | 3.5% |
| 150% of Avg Bill: 300 HCF | \$1,398.66 | \$1,646.41 | 17.7% | \$1,704.03 | 3.5% |

a. New rates effective Jan 1 of fiscal year.

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