AGENDA ITEM 11.1:
AMENDED REPORT

CITY OF OAKDALE
City Council Staff Report

Meeting Date: January 10, 2017

To: Mayor Pat Paul and Members of the City Council

From: Miranda Lutzow, Management Analyst

Reviewed by: Bryan Whitemyer, City Manager

Subject: **Consider Initiating the Proposition 218 (Voter Approval) Process to Implement Proposed Water Rate Increases**

I. INTRODUCTION

The City owns and operates the domestic water system and wastewater system that primarily serves customers in the incorporated boundaries of the City of Oakdale. Over the last three years, water conservation efforts have increased and water consumption has decreased significantly. This has lowered Water Fund revenues significantly. As a result, the Water Fund does not receive adequate revenues to pay for needed water system improvements and waterline replacements. In addition, deferred maintenance and replacement has resulted in many of the current water and wastewater system components exceeding their normal life span. As a result of Fund financial projections, and because of the deteriorating condition of the water system and wastewater system's infrastructure, the City has developed a financial planning model to assess options to ensure the financial stability of the two systems over the next five year period.

In June of 2016, the City of Oakdale (City) engaged Tuckfield & Associates to conduct a comprehensive water and wastewater study. The rate study included meetings and teleconferences with City staff to present findings and solicit their views and comment.

The major objectives of the study included the following:

1) Evaluate the revenue, operation and maintenance expense, and capital needs of the Water and Sewer Funds and ensure that revenue is sufficient to meet long-term obligations;
2) Develop five-year financial plans for the Water and Sewer Funds that stabilize rate adjustments to avoid rate spikes while meeting financial planning criteria for each fund; and,
3) Create schedules of water and wastewater rates and charges that are fair and equitable, that provide predictable sources of revenue developed in the financial plans, and that meet Proposition 218 requirements for rates and charges.

II. WATER SYSTEM

Background

The City provides water service to approximately 7,700 customers serving an area of about 5 square miles. Annual water demand is met from groundwater sources and is delivered through a distribution system consisting of pump stations, storage tanks, and over 75 miles of water pipelines.

In the Capital Improvement Plan reviewed and approved by City Council at their October 17, 2016 meeting, the City identified needed water system improvements for construction over the next five years. Major improvements of the program include improvements to Well No. 10 and the Walnut Pump Station. The cost of the improvements is expected to total over $3 million.

The last comprehensive water and wastewater rate study took place in 2012 when the City engaged Tuckfield & Associates to conduct a comprehensive water and wastewater rate study for the five-year planning period of FY 2012-13 to 2017-18. Over the last three years as the drought in California has persisted, the revenues collected from water rates in the City of Oakdale have dropped by 11% or $374,479. This drop in revenue is a concern since operational and capital improvement costs for wells, water tanks, and pipelines have not decreased.

The current water rate structure consists of monthly fixed charges by customer classification as well as volume rates by customer classification. In a recent court case, *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano*, the Fourth District of the California Court of Appeal found in favor of the plaintiffs ruling that not only must costs be proportional to the cost of service overall, but that rates must also be proportional to costs within each classification or “tier.” The proposed rate structure has been redesigned to comply with the *San Juan Capistrano* case and all other requirements under Proposition 218.

III. WATER STUDY RESULTS

An analysis was performed that compared the projected revenue using the City’s current water rates with the projected revenue requirements (costs) of the System. The analysis indicated that the current level of revenue received is not sufficient to meet future obligations and revenue increases are recommended to adequately meet future obligations, debt coverage requirements, and other financial planning criteria.

Recommended Rate Increases and Current Rate Comparisons

The current water rates consist of fixed charges by meter size and variable charges by usage block or tier. The tiered variable charges apply to blocks of water consumption for each meter size for all customers.

	Meter Size					
	5/8 & 3/4 inch	1 inch	1-1/2 inch	2 inch	3 inch	4 inch
Monthly Fixed Charges	$16.97	$16.97	$33.95	$54.60	$108.66	$169.77

	Variable	Block by Meter Size					
Tier	Rate	5/8 & 3/4 inch	1 inch	1-1/2 inch	2 inch	3 inch	4 inch
Tier 1	$0.00	0-6 CCF	0-6 CCF	0-12 CCF	0-19 CCF	0-39 CCF	0-60 CCF
Tier 2	$0.86	7-17 CCF	7-17 CCF	13-34 CCF	20-55 CCF	40-109 CCF	61-170 CCF
Tier 3	$1.28	18-27 CCF	18-27 CCF	35-54 CCF	56-87 CCF	110-173 CCF	171-270 CCF
Tier 4	$1.70	Over 27 CCF	Over 27 CCF	Over 54 CCF	Over 87 CCF	Over 173 CCF	Over 270 CCF

Staff reviewed three proposed rate structure options. Under the first option, rates were proposed to increase by a large percentage across all levels of consumption, which would adversely affect lower income and single users. The second proposed option placed a heavy burden on those customers who use the most water. This would be problematic for two reasons. First, the proposed rate structure would result in increased costs proportional to increased use. This approach is more appropriate in areas with extremely limited water supplies and is not as relevant in Oakdale, which primarily relies on available groundwater. Secondly, the proposed increases on heavy water users were so high, they could cause users to change their behavior and conserve water to save money. Less usage would mean less revenue, and the City may not be able to meet the revenue level required to be able to maintain the water system. For those reasons, the rate study recommends a uniform rate structure.

Below is the schedule of increases on fixed charges through the year 2021.

Option 3: Uniform Variable Rates						
	Current Rate	April 1 2017	January 1 2018	January 1 2019	January 1 2020	January 1 2021
5/8 & 3/4 Inch	**$16.97**	$11.48	$13.19	$15.14	$15.41	$15.69
1 inch	**$16.97**	$11.48	$13.19	$15.14	$15.41	$15.69
1-1/2 inch	**$33.95**	$12.18	$13.99	$16.06	$16.35	$16.64
2 inch	**$54.60**	$14.10	$16.20	$18.60	$18.93	$19.27
3 inch	**$108.66**	$28.22	$32.46	$37.29	$37.97	$38.66
4 inch	**$169.77**	$33.44	$38.48	$44.21	$45.02	$45.84

In addition to fixed charges, customers also pay a rate per unit of water that is proportional to the cost of providing that unit of water. Below is the schedule of rate increases through 2021. Under this proposal, all water customers will pay

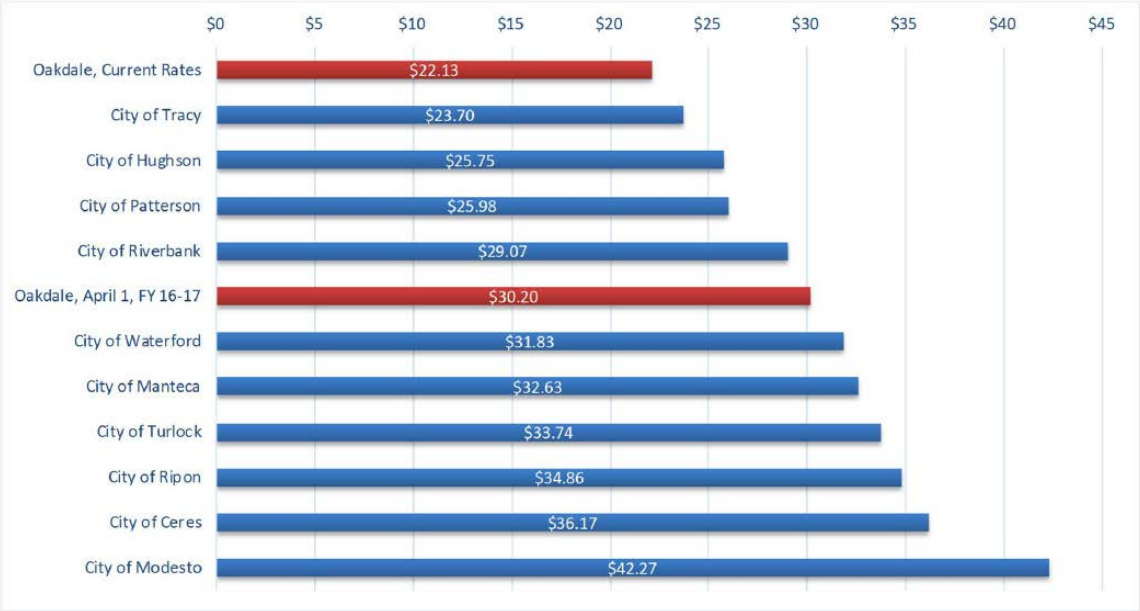
Option 3: Uniform Variable Rates						
	Current Rate	April 1 2017	January 1 2018	January 1 2019	January 1 2020	January 1 2021
Tier 1 0-6 Units	$0.00	-	-	-	-	-
Tier 2 7-17 Units	$0.86	-	-	-	-	-
Tier 3 18-27 Units	$1.28	-	-	-	-	-
Tier 4 Over 27 Units	$1.70	-	-	-	-	-
All Residential		$1.56	$1.80	$2.07	$2.11	$2.15
Commercial		$1.56	$1.80	$2.07	$2.11	$2.15
Irrigation		$1.56	$1.80	$2.07	$2.11	$2.15

the same rate for a unit of water, whether it is for residential, commercial or irrigation purposes.

Under the water rate structure recommended by staff, the majority of users will see an increase between 25.6% – 43.8% in the first year. The table below compares what customers are currently paying to what they will pay with the recommended increased rates.

Single-family Residential									
Bills in Block	Usage (HCF)	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	% Change
32,318	7	$16.97	$0.86	$17.83	$11.48	$10.92	$22.40	$4.57	25.6%
31,060	17	$16.97	$9.46	$26.43	$11.48	$26.52	$38.00	$11.57	43.8%
15,791	40	$16.97	$44.36	$61.33	$11.48	$62.40	$73.88	$12.55	20.5%
1,019	50	$16.97	$61.36	$78.33	$11.48	$78.00	$89.48	$11.15	14.2%
399	60	$16.97	$78.36	$95.33	$11.48	$93.60	$105.08	$9.75	10.2%
205	70	$16.97	$95.36	$112.33	$11.48	$109.20	$120.68	$8.35	7.4%

The graph below compares the City's average water bill with the water bills of other communities at the same consumption. Currently, Oakdale has the lowest water rates of all surrounding cities. The graph indicates that under the recommended water rates, a single family residential customer with a 1 inch meter and a monthly consumption of 12 hcf monthly will experience a bill that is in the middle of surrounding communities.



IV. WASTEWATER STUDY RESULTS

An analysis was performed that compared the projected revenue using the City's current wastewater rates with the projected revenue requirements (costs) of the wastewater system. The analysis indicated that the current level of revenue being received is sufficient to meet future obligations during the Study period. No revenue increases are required to adequately meet future obligations, debt coverage requirements, and other financial planning criteria.

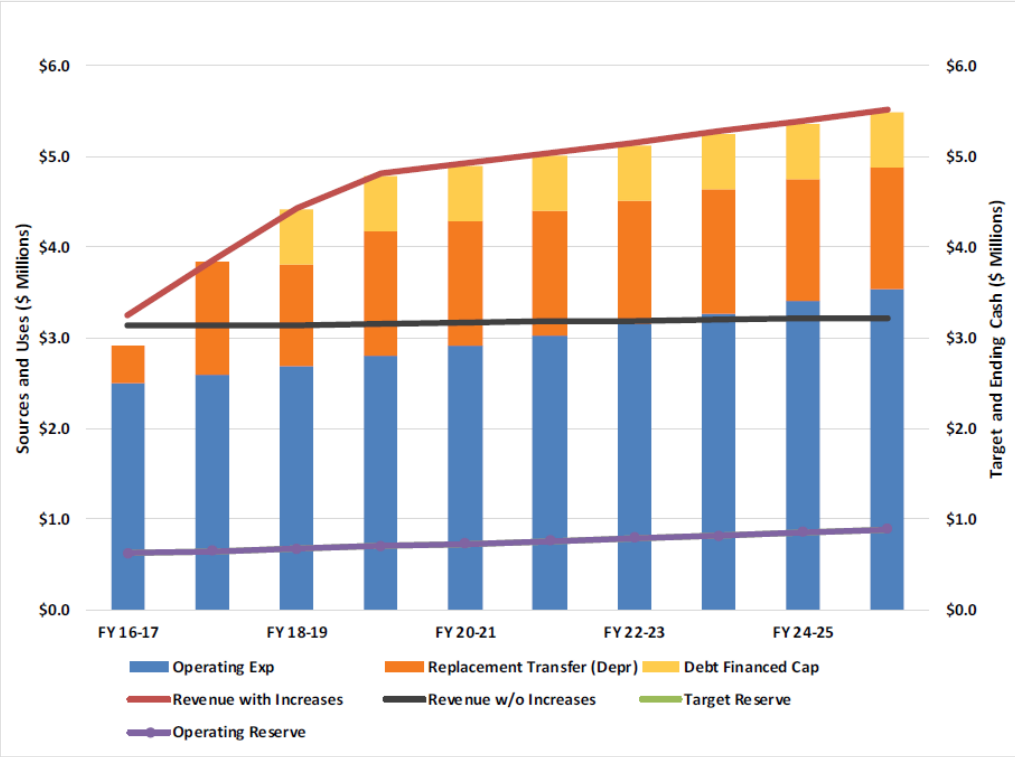
V. PROPOSITION 218 PROCESS

In November 1996, citizens of the State of California passed a Constitutional amendment known as Proposition 218. This amendment changed the process for increasing property-related fees within the state. For the City, water rates are treated as a property-related fee and, pursuant to Proposition 218, require a protest hearing by the property owners prior to instituting a rate increase. Under the protest hearing process, property owners within the service area are mailed a rate increase notice and protest form detailing the proposed rate increase. To oppose the rate increase, the property owner must return the protest form to the City. To support the rate increase, there is no action required on the part of the property owner. If a majority of parcel owners send in protests (50% +1) to the City no later than the end of the protest hearing, the City may not approve the proposed rate increase. If the protest fails with 50% or less in opposition, then the City can approve a rate increase not to exceed the rate increase detailed in the protest form.

It is anticipated that 7602 Protest notices will be mailed out to property owners (based on the most recent property tax rolls of the County) on January 18, 2016, which begins the 45-day protest period. If 3801 +1 protest notices are signed and returned by the end of the public hearing on March 20, 2017 Council may not increase water rates. If less than 3801 Protests are submitted then the protest fails and Council can approve the proposed rates as a "ceiling or capped" amount. Attachment C is the protest notice that will be sent out to customers.

VI. FISCAL IMPACT

In order to collect sufficient revenue to cover the cost of providing water service, it is necessary for a rate adjustment to take effect April 1, 2017. The following chart presents an updated five-year Water Enterprise Fund projection with the proposed new rate revenue.



If the proposed rate adjustments are not approved, the short-term effect will be that revenues will continue to decline placing the City's water system at risk. Long-term, the inability to properly maintain and replace system components that are already past their expected life span will result in an increased number of emergency water system repairs. The cost to repair and replace components

on an emergency basis will have much greater financial impact than replacing the parts as the Fund allows.

VII. RECOMMENDATION

Adopt a resolution initiating the Proposition 218 process to:

1) Adjust rates according to Tuckfield & Associates water rate study rates, with varying rate adjustments for FY16-17, FY17-18, FY18-19, FY19-20 & FY 20-21 ;
2) Adopt automatic rate adjustments beginning April 1, 2017;
3) Send out protest notices to City property owners explaining the new rate structure and proposed rate adjustments and allowing for a protest response; and,
4) Set a public hearing for March 6, 2017 to consider the results of the protest response and to act on the proposed rate adjustments.

. ATTACHMENTS

1. Resolution 2017-_____
2. Report on Water and Wastewater Rate Study
3. Draft Proposition 218 Notice

IN THE CITY COUNCIL
OF THE CITY OF OAKDALE
STATE OF CALIFORNIA
CITY COUNCIL RESOLUTION 2016-___

A RESOLUTION OF THE CITY OF OAKDALE CITY COUNCIL AUTHORIZING THE INITIATION OF A PUBLIC HEARING TO CONSIDER A PROPOSED WATER SERVICE RATE INCREASE AND DIRECTING THAT NOTICE OF THE HEARING BE GIVEN

THE CITY OF OAKDALE CITY COUNCIL DOES HEREBY RESOLVE THAT:

WHEREAS, the City of Oakdale ("City") has the lowest rates for water service among comparable cities; and,

WHEREAS, the City has not adjusted its water rate structure since 2012; and,

WHEREAS, the City retained Tuckfield & Associates to develop a model and study the rates and charges for both water and wastewater service; and,

WHEREAS, the study performed by Tuckfield & Associates indicates that water service rates need to be increased to provide sufficient water system revenues from which to pay operation and maintenance expenses; and,

WHEREAS, the City Council has received a draft report titled Water Rate Study Final Report ("Report") from Tuckfield & Associates that has been reviewed in detail by City staff and the City Council, setting forth the recommended increases in the water service rates, in the form of step increases over a five-year period, specifically in fiscal years 2016-17 (partial), 2017-18, 2018-19, 2019-2020, and 2020-2021; and,

WHEREAS, the Report also concluded that the City can operate and maintain its wastewater system over the next five years within the existing rate structure; and

WHEREAS, in accordance with Section 6 of Article XIII D of the California Constitution, the Council will schedule and conduct a public hearing with respect to the proposed increases in Water Rates, as recommended by the Report;

NOW, THEREFORE, BE IT RESOLVED that the **CITY COUNCIL** of the **CITY OF OAKDALE** hereby:

1. Approves for introduction and discussion purposes the proposed increases in the water and wastewater service rates, as recommended by the Report, for purposes of conducting the public hearing; depending on the outcome of the hearing, this Council may take action to adopt the rates after the public hearing is concluded.
2. Directs City staff to cause the mailing of a notice of hearing containing at minimum the information prescribed by, with such hearing to occur on for March 6, 2017 or

otherwise in the time and manner prescribed by Section 6, and by Government Code Section 53755. The mailing must be completed not less than 45 days prior to the hearing date.

3. At the public hearing, all persons interested in the matter will be heard, whether in support or opposition to any aspect of the proposed increase in the water and wastewater service rates, prior to the closing of the public hearing.

THE FOREGOING RESOLUTION IS HEREBY ADOPTED THIS _____ DAY OF _____, _____, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAINED: COUNCIL MEMBERS:

SIGNED:

_____
Pat Paul, Mayor

ATTEST:

_____
Kathy Teixeira, CMC
City Clerk

Report on

Water and Wastewater Rate Study

For:

City of Oakdale

280 North Third Avenue
Oakdale, CA 95361
(209) 845-3571

Submitted By:

Tuckfield & Associates

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DRAFT

January 2017

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Tuckfield & Associates
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January 17, 2017

Mr. Bryan Whitemyer
City Manager
City of Oakdale
280 North Third Avenue
Oakdale, CA 95361

Dear Mr. Whitemyer:

I am pleased to present this Water and Wastewater Rate Study (Study) report for the City of Oakdale (City). The water and 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 water and wastewater system in accordance with Proposition 218.

This study included a review and analysis of the water and wastewater enterprise revenue and revenue requirements, number of customers, volumes, and current rate structure. The major objectives of the Study include the following.

- Generate positive levels of income in the Study period
- Maintain operating and capital reserves at or greater than target levels
- Maintain debt service coverage ratios at or greater than the minimum required
- Meet annual capital replacement spending from the water and wastewater rates and charges

This report presents the findings and recommendations for the financial plans and rates for the City's water and wastewater enterprises. Tables and figures throughout the report are provided to demonstrate the calculations.

It has been a pleasure to work with City 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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Water and Wastewater Rate Study

City of Oakdale

Table of Contents

Page

Executive Summary 1

Water Financial Plan 1

Proposed Water Rates 1

Current Water Rates 1

Proposition 218 2

Proposed Water Rate Structure and Rates 2

Water Bill Impacts 2

Wastewater Financial Plan 4

Proposed Wastewater Rates 4

Current Wastewater Rates 4

Proposed Water Rate Structure and Rates 4

Wastewater Bill Impacts 4

Introduction 6

Background 6

Legal Framework and Industry Methodology 6

Proposition 218 6

Objectives 7

Scope of Study 7

Assumptions 8

City Reserve Policy 8

City Beginning Balances and Reserve Targets 9

Water Financial Planning 10

Current Water Rates 10

Water User Classifications 10

Number of Customers 10

Number of Water Meters 11

Water Sales Volumes 12

Water Financial Plan 13

Revenues 13

Revenue Requirements 14

Operation and Maintenance Expense 14

Annual Replacement Transfer 14

Debt Service 15

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Table of Contents (continued)

Page

Water Capital Improvement Program 15
Water Financial Plan 16
Proposed Revenue Adjustments 16
Cost of Service 18
Industry Methodology 18
Costs of Service to be Allocated 18
Water Rate Design 18
Proposed Rate Structure 19
Fixed Charges 19
Private Fire Protection Charges 21
Variable Charges 22
Proposed Water Rates 22
Bill Impact Analysis 22
Water Rate Survey 23
Wastewater Financial Planning 25
Current Wastewater Rates 25
Wastewater User Classifications 26
Number of Customers 26
Water Sales Volumes of Wastewater Customers 26
Wastewater Financial Plan 27
Revenues 28
Revenue Requirements 28
Operation and Maintenance Expense 28
Annual Replacement Transfer 29
Existing Debt Service 29
SRF Loan Reserve Payment 29
Additional CIP Funding 30
Wastewater Capital Improvement Program 30
Wastewater Financial Plan 31
Proposed Revenue Adjustments 31
Wastewater Rates 33
Proposed Wastewater Rates 33

Table of Contents (continued)

Page

Wastewater Bills 33

Wastewater Rate Survey 34

List of Tables

Table ES-1 Proposed Water Fixed Charges and Variable Charges 2
Table ES-2 Comparison of Current Single-family Residential Monthly Bill with Proposed Monthly Bill Using April 2017 Water Rates 3
Table ES-3 Proposed Wastewater Fixed Charges and Variable Charges 2
Table 1 Assumptions and Planning Factors 8
Table 2 June 30, 2016 Beginning Cash Balances and Reserve Targets 9
Table 3 Current Water Rates 10
Table 4 Projected Water Customers by Classification 11
Table 5 Projected Number of Water Meters 11
Table 6 Projected Water Consumption (in CCF) 12
Table 7 Projected Rate-based Water Revenue Using Existing Rates 13
Table 8 Projected Water Operation and Maintenance Expense 14
Table 9 Water Capital Improvement Program 15
Table 10 Water Financial Plan 16
Table 11 Allocation of Revenue Requirements to Cost Component 19
Table 12 Design of Fixed Charges 20
Table 13 Design of Fixed Charges by Meter Size 20
Table 14 Proposed Monthly Fixed Charges 21
Table 15 Design of Private Fire Protection Charges 21
Table 16 Design of Private Fire Protection Charges by Hydrant Size 21
Table 17 Design of Uniform Volume Charge 22
Table 18 Proposed Water Fixed Charges and Variable Charges 23
Table 19 Comparison of Current Single-family Residential Monthly Bill with Proposed Monthly Bill Using April 2017 Water Rates 23
Table 20 Current Wastewater Rates 25
Table 21 Projected Wastewater Customers by Classification 26
Table 22 Projected Water Consumption of Wastewater Customers (in CCF) 27
Table 23 Projected Rate-based Wastewater Revenue Using Existing Rates 28
Table 24 Projected Wastewater Operation and Maintenance Expense 29

Table of Contents (continued)

Page

Table 26 Wastewater Capital Improvement Program 30
Table 27 Wastewater Financial Plan 31
Table 28 Proposed Wastewater Fixed Charges and Variable Charges 33

List of Figures

Figure 1 FY 2015-16 Water Customers by Class 12
Figure 2 FY 2015-16 Water Consumption by Customer Class 13
Figure 3 Water Financial Plan 17
Figure 4 FY 2015-16 Wastewater Customers by Class 27
Figure 5 Wastewater Financial Plan 32

List of Charts

Chart ES-1 Single-family Residential Monthly Water Bills Using 12 CCF 3
Chart ES-2 Single-family Residential Monthly Wastewater Bills 5
Chart 1 Single-family Residential Monthly Water Bills Using 12 CCF 24
Chart 2 Single-family Residential Monthly Wastewater Bills 34

Executive Summary

The City of Oakdale (City) engaged Tuckfield & Associates to conduct a comprehensive Water and Wastewater Rate Study (Study) for its enterprise systems. This Study includes development of pro forma statements of revenues and revenue requirements for each system, analyses to determine the costs of providing service, and design of new water and wastewater rates and charges for implementation.

Water Financial Plan

The revenue and revenue requirements of the water system were identified and projected to create a forward looking financial plan of the water enterprise. Annual costs of the water system include operation and maintenance expense (O&M), annual replacement transfer, and debt service from a proposed new debt issue. Future O&M expenses include the City's FY 2016-17 budget expenses for the first year and projected expenses for future years through application of inflation factors to budget year expenses.

The annual replacement transfer is an amount transferred from the operating fund to the capital fund to pay for water system replacements that is approximately equal to annual depreciation expense. The annual replacement transfer increases over the study period as new capital projects from the capital improvement program (CIP) are booked into fixed assets and depreciated. Debt service includes payments on a proposed $8.2 million debt issue in FY 2018-19 with an assumed interest rate of 5 percent and a 30-year term.

The City has prepared a five-year CIP spending plan that includes replacements and capital improvements. Major projects of the CIP include the 16-inch High Pressure Main Project at a cost of $2.9 million and the Well 10 Storage/Pumping Project at cost of $6.1 million, both in FY 2018-19. The construction costs of these two projects are planned to be financed with capital reserves and a proposed $8.2 million debt issue in FY 2018-19, creating new debt service payments that will be funded through water rates. The remainder of the CIP is expected to be financed through capacity charge revenue, annual replacement transfer, and capital reserves.

An analysis was performed that compared the projected revenue using the City's current water rates with the projected revenue requirements (costs) of the System. The analysis indicated that the current level of revenue received is not sufficient to meet future obligations and revenue increases are recommended to adequately meet future obligations, debt coverage requirements, and other financial planning criteria. The revenue increases include 15 percent revenue increases on April 1, 2017 and on January 1, 2018 and January 1, 2019, followed by annual increases of 2 percent on January 1 for the remaining years of the Study. The water financial plan is presented in Table 10.

Proposed Water Rates

Current Water Rates

The current water rates consist of fixed charges by meter size and variable charges by usage block or tier. The tiered variable charges apply to blocks of water consumption for each meter size for all customers. Table 3 provides the current water rates charged to water customers of the City.

Proposition 218

Recent findings from the San Juan Capistrano court decision (Court Decision) regarding the legality of water rate structures suggests that the City's current water rate structure no longer meets the tests of Proposition 218. The findings of the Court Decision indicate that rates not only need to be proportional to cost of service, but they need to be proportional to cost of service within rate tiers of such rate structures as well.

Proposed Water Rate Structure and Rates

The proposed water rate structure keeps the fixed charge structure by meter size but modifies the four-tiered variable charge structure to a uniform volume charge, therefore all customers of the water system will be charged the same uniform consumption rate. Table ES-1 presents the water rates to be adopted April 2017 and for future years.

Table ES-1
Proposed Water Fixed Charges and Variable Charges

	Current Rate	April 1, FY 16-17	January 1, FY 17-18	January 1, FY 18-19	January 1, FY 19-20	January 1, FY 20-21
Meter Size	Fixed Charge ($ per month)					
5/8 & 3/4 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1-1/2 inch	$33.95	$12.18	$13.99	$16.06	$16.35	$16.65
2 inch	$54.60	$14.09	$16.20	$18.60	$18.94	$19.28
3 inch	$108.66	$28.21	$32.46	$37.29	$37.97	$38.66
4 inch	$169.77	$33.44	$38.48	$44.21	$45.02	$45.84
	Variable Charge ($ per HCF)					
Example Meter Size (1-inch and less)						
Tier 1 - 0 to 6 units	$0.00					
Tier 2 - 7 to 17 units	$0.86					
Tier 3 - 18 to 27 units	$1.28					
Tier 4 - Over 27	$1.70					
All Consumption		$1.56	$1.80	$2.07	$2.11	$2.15

Water Bill Impacts

Table ES-2 presents the impacts to single-family residential (SFR) bills from the implementation of the proposed April 2017 water rates. For a single-family residential customer using the average consumption of 12 hundred cubic feet (CCF) monthly, the bill will increase from $22.13 to $30.20, an increase of $8.07, or 36.5 percent.

Table ES-2
Comparison of Current Single-family Residential Monthly Bill with Proposed Monthly Bill Using April 2017 Water Rates

Single-family Residential									
Bills in Block	Usage (HCF)	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	% Change
32,318	7	$16.97	$0.86	$17.83	$11.48	$10.92	$22.40	$4.57	25.6%
31,060	17	$16.97	$9.46	$26.43	$11.48	$26.52	$38.00	$11.57	43.8%
15,791	40	$16.97	$44.36	$61.33	$11.48	$62.40	$73.88	$12.55	20.5%
1,019	50	$16.97	$61.36	$78.33	$11.48	$78.00	$89.48	$11.15	14.2%
399	60	$16.97	$78.36	$95.33	$11.48	$93.60	$105.08	$9.75	10.2%
205	70	$16.97	$95.36	$112.33	$11.48	$109.20	$120.68	$8.35	7.4%

Chart ES-1 has been prepared to compare Oakdale's average single-family residential water bill with those of other communities at the same consumption. The chart indicates that with the April 2017 rates, an Oakdale single-family residential customer with a monthly consumption of 12 CCF will experience a bill that is in the mid-range of the communities listed.

Chart ES-1
Single-family Residential Monthly Water Bills Using 12 CCF
For Rates in Effect October 2016

Note: Above table uses water rates in effect October 2016. Oakdale April 2017 bill is based on the rate structure and rates in Table ES-1.

Wastewater 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 include operation and maintenance expense (O&M), annual replacement transfer, debt service, and debt service reserve payment. Future O&M expenses include the City's FY 2015-16 Budget expenses for the first year and projected expenses for future years through application of inflation factors to budget year expenses. The annual replacement transfer includes an amount that is approximately equal to annual depreciation. The City has outstanding debt on 2002 Revenue Bonds and a 2011 SRF Loan with total payments that range from about $794,000 to $1,050,000 over the Study period. The SRF loan requires a payment to a debt service reserve in the amount $116,500 annually.

The City has prepared a five-year capital improvement program (CIP) spending plan for the wastewater system. Major projects of the CIP include the include the River Crossing Replacement, Pump Station Electrical Improvements, Kimball Trunk Rehabilitation, and Emergency Storage Ponds. CIP expenditures total slightly more than $14 million over the 5-year Study period. The CIP expenditures are planned to be funded through capacity charge revenue, the annual transfer to capital, additional funding through rates, and capital reserves.

An analysis was performed that compared the projected revenue using the City's current wastewater rates with the projected revenue requirements (costs) of the wastewater system. The analysis indicated that the current level of revenue being received is sufficient to meet future obligations during the Study period. No revenue increases are required to adequately meet future obligations, debt coverage requirements, and other financial planning criteria. The wastewater financial plan is presented in Table 25.

Proposed Wastewater Rates

Current Wastewater Rates

The current wastewater rates consist of monthly fixed charges for all customers and variable charges for Commercial and Industrial customers. Single-family residential and Multifamily residential customers are charged a flat charge per dwelling unit per month. Industrial customer's variable charge is based on the discharge Bio-chemical Oxygen Demand (BOD) strength of the wastewater.

Proposed Wastewater Rate Structure and Rates

Because there are no revenue increases required during the Study period, it is proposed to keep the current wastewater rate structure and rates in place without modification. Table ES-3 presents the wastewater rates for the next five years.

Wastewater Bill Impacts

Since there is no change to the wastewater rate structure and rates, there is no billing impact to customers of the wastewater system.

Chart ES-2 has been prepared to compare Oakdale's average single-family residential wastewater bill with those of other communities. The chart indicates that Oakdale's single-family residential wastewater bill is in the upper-range of the communities listed.

Table ES-3

Schedule of Current and Proposed Wastewater Service Rates

Effective July 1, 2016

Classification	Fixed Charges	Variable Charges [2]
	$/month	$/Ccf
Residential	$58.35	NA
Commercial Standard Strength (C1)	36.29	2.52
Commercial High Strength (C2)	36.29	4.03
Oakdale Unified Schools (each 20 ADA)	36.29	NA
Industrial	$27.28	NA

Industrial [2]		Strength
BOD Range in mg/l		$/Ccf
From	To	
200	300	$1.77
301	700	1.88
701	1000	3.15
1001	1500	3.35
1501	2000	3.64
2001	2500	4.25
2501	3000	4.62
Over	3000	$6.13

[1] Residential customers are charged a flat rate per month.
Non-residential customers are charged on w ater consumption.

[2] Sconza Candy Co. is the only Industrial customer.

Chart ES-2
Single-family Residential Monthly Wastewater Bills
For Rates in Effect October 2016

Note: Above table uses wastewater rates in effect October 2016. Oakdale April 2017 bill is based on the rate structure and rates in Table ES-3.

Introduction

The City of Oakdale (City) engaged Tuckfield & Associates to conduct a comprehensive Water and Wastewater Rate Study (Study) for its water and wastewater enterprise systems. This Study includes development of a pro forma statements of revenues and revenue requirements for each enterprise, analyses to determine the cost of providing service, and design of new water and wastewater rates and charges for implementation.

Background

The City of Oakdale, California is located in the north central portion of Stanislaus County approximately 15 miles northeast of the City of Modesto. The City provides water and wastewater service to a population of approximately 20,600 serving an area of about 5 square miles. The customer base consists of residential, commercial, retail, and public customers and one industrial customer. Water and wastewater service is identified in separate enterprise funds of the City.

The water utility obtains its water supply from groundwater sources supplied by eight wells. Water is delivered through a distribution system consisting of pump stations, storage tanks, and over 75 miles of water pipelines ranging in size from 2 to 16 inches.

Wastewater service is provided to City customers through a collection system consisting of sewer gravity mains and several lift stations. Wastewater is treated at the City-owned wastewater treatment plant. The wastewater treatment plant was upgraded in August 2011 and now provides tertiary treatment with a capacity of 3.04 million gallons per day (MGD).

Legal Framework and Industry Methodology

Proposition 218

Proposition 218 was approved by California voters in 1996. The initiative added Articles 13 C and D to the California Constitution, providing a definition of a "fee" and providing the requirements for new fees or to increase fees and charges. In 2006, the California Supreme Court ruled that provisions of Proposition 218 apply to water, sewer, and refuse charges. Article 13D states the requirements for new or increased fees and charges, including water rates, which are described below.

1. Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

2. Revenues derived from the fees or charges shall not be used for any purpose other than that for which the fee or charge was imposed.

3. The amount of the fee or charge imposed upon any parcel or person as an incident of property ownership shall not the proportional cost of the service attributable to the parcel.

4. No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property.

5. The agency shall conduct a public hearing upon the proposed fee or charge not less than 45 days after mailing the notice of the proposed fee or charge to the record owners of each identified parcel upon which the fee or charge is proposed for imposition. At the public hearing, the agency shall consider all protests against the proposed fee or charge. If written protests against the proposed fee or charge are presented by a majority of owners of the identified parcels, the agency shall not impose the fee or charge.

Water and wastewater rates and charges are considered property-related fees under Proposition 218 and must comply with the substantive and procedural requirements stated above.

Objectives

The objectives of this Study are to (1) review the current and future financial status of each of the water and wastewater enterprises, (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 water and wastewater rates that generate the required revenue while being fair and equitable for its customers. Additionally, the Study also sought to provide the following.

- Revenue sufficiency to fund operating and capital needs
- Appropriate levels of operating and capital reserves
- Cost of service allocations following appropriate standards, regulations, and guidelines
- Rates that are consistent with industry practice
- Ease of understanding and administration

Scope of the Study

This Study includes the findings and recommendations of analyzing each of the water and wastewater enterprise's financial status and related CIP. Historical trends were analyzed from data supplied by the City showing the number of customers, volumes, revenue, and revenue requirements.

Revenue requirements of each enterprise includes 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 City. 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 City conduct an update to the rate study at least every three years for prudent rate planning.

Assumptions

Several assumptions were used to conduct the Study for the period FY 2016-17 to FY 2020-21. The assumptions included growth rates in customer accounts and annual consumption, expense inflation factors, and other assumptions used for projecting revenue and expense and estimating debt service payments and related expenses. The financial planning assumptions are provided in Table 1.

Table 1
Assumptions and Planning Factors

Description	Value
Annual Account & Demand growth [1]	
Single-family Residential	0.5%
All Other	0.0%
Interest earnings on fund reserves (annual)	0.25%
Cost Escalation	
Personnel Services [2]	3.5%
Benefits	3.5%
Electrical Power	4.0%
Chemicals	2.0%
All Other Operations & Maintenance	5.0%
Capital	3.0%
New Revenue Bond Debt	
Interest Rate	5.0%
Repayment Period (Term) - years	30
Bond Proceeds as a % of Issue Amount	88.5%
Bond Reserve (1 yr's pymnt, % of issue amount)	7.3%
Cost of Issuance	5.0%

[1] Annualized growth in water accounts is based on discussions with staff.
[2] Personnel Services growth in staffing, promotions and inflation are expected to increase by 3.5% annually.

City Reserve Policy

The City has a written reserve policy adopted April 18, 2016 wherein the City increased its General Fund and Enterprise Fund reserve policy from 20 percent to 40 percent of each fund's annual operating budget. The reserve policy sets the goal for maintaining reserves for water and wastewater operations and capital spending. A reserve policy provides a basis to deal with unanticipated reductions in revenues, changes in the costs of providing services, fixed asset repair and replacement, natural disaster, and other issues. It also provides guidelines to maintain the financial health and stability of the enterprise funds.

For this Study, certain reserve targets have been established with the intent to move toward the City's reserve policy. The reserve types and the amount of reserves used in this Study are discussed below and include the following.

Operating Reserve – The purpose of the Operating Reserve is to provide working capital to meet cash flow needs during normal operations and support the operation, maintenance and administration of the utility. This reserve ensures that operations can continue should there be significant events that impact cash flows. The target balance to be maintained is 90 days (25 percent) of the current annual expense budget.

Capital Replacement Reserve – The Capital Replacement Reserve is used to fund future replacement of assets and capital projects. The target balance is equal to annual depreciation expense.

Capital Emergency – The purpose of the emergency capital reserve is to provide protection against catastrophic loss and to provide a cushion for inaccuracy in the long-range replacement program. The Target balance is 5 percent of the value of capital assets.

City Beginning Balances and Reserve Targets

As of June 30, 2016, the City beginning fund balances are listed in the table below. The reserves are used in developing the financial plans for the water and wastewater utilities. Target Reserves are also provided in the table.

Table 2
June 30, 2016 Beginning Cash Balances and Reserve Targets

Reserve Type	Reserve Balance	Reserve Target
Water Utility		
Operating Reserve	$290,200	$624,000
Capital Replacement	$2,278,400	$1,500,000
Capital Facility Fund	$2,942,200	n/a
Capital Emergency	$0	$600,000
Total	$5,510,800	$2,724,000
Wastewater Utility		
Operating Reserve	$782,000	$782,000
Capital Replacement	$6,247,600	$1,500,000
Capital Facility Fund	$573,200	n/a
Capital Emergency	$0	$700,000
Total	$7,602,800	$2,982,000

Water Financial Planning

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

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

Current Water Rates

The current water rates consist of fixed and variable charges to residential and non-residential customers. All customers are charged a monthly fixed charge by meter size. Additionally, customers are charged for consumption based on a four-tier variable charge structure where rates are applied to blocks of water by meter size. Table 3 provides the current water rates of the water system.

Table 3
Current Water Rates

	Meter Size					
	5/8 & 3/4 inch	1 inch	1-1/2 inch	2 inch	3 inch	4 inch
Monthly Fixed Charges	$16.97	$16.97	$33.95	$54.60	$108.66	$169.77

	Variable	Block by Meter Size					
Tier	Rate	5/8 & 3/4 inch	1 inch	1-1/2 inch	2 inch	3 inch	4 inch
Tier 1	$0.00	0-6 CCF	0-6 CCF	0-12 CCF	0-19 CCF	0-39 CCF	0-60 CCF
Tier 2	$0.86	7-17 CCF	7-17 CCF	13-34 CCF	20-55 CCF	40-109 CCF	61-170 CCF
Tier 3	$1.28	18-27 CCF	18-27 CCF	35-54 CCF	56-87 CCF	110-173 CCF	171-270 CCF
Tier 4	$1.70	Over 27 CCF	Over 27 CCF	Over 54 CCF	Over 87 CCF	Over 173 CCF	Over 270 CCF

Water User Classifications

Number of Customers

The City currently classifies water customers as Single-family Residential (SFR), Multifamily Residential (MFR, including apartments, condominium, and mobile home), Commercial, and Irrigation. SFR customers account for more than 87 percent of the total customers served by the water system. Growth is projected to occur only in SFR accounts at a rate of 0.50 percent annually or 34 accounts added each year, following the assumptions listed in Table 1. Table 4 provides the historical and projected number of customers by classification.

Number of Water Meters

Table 5 provides a summary of the number of current and projected meters by size. The majority of customers have 1-inch meters installed at the service location and this is the minimum size for new meter installations for the City's customer base.

Table 4
Projected Water Customers by Classification

	Actual	Projected				
Customer Class	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Number of Accounts						
Single-family Residential	6,717	6,751	6,785	6,819	6,853	6,887
Multifamily Residential	164	164	164	164	164	164
Commercial	562	562	562	562	562	562
Irrigation	226	226	226	226	226	226
Total Accounts	7,669	7,703	7,737	7,771	7,805	7,839
Fire Protection						
Public Fire Protection	755	755	755	755	755	755
Private Fire Protection	55	55	55	55	55	55
Total Fire Protection Hydrants	810	810	810	810	810	810

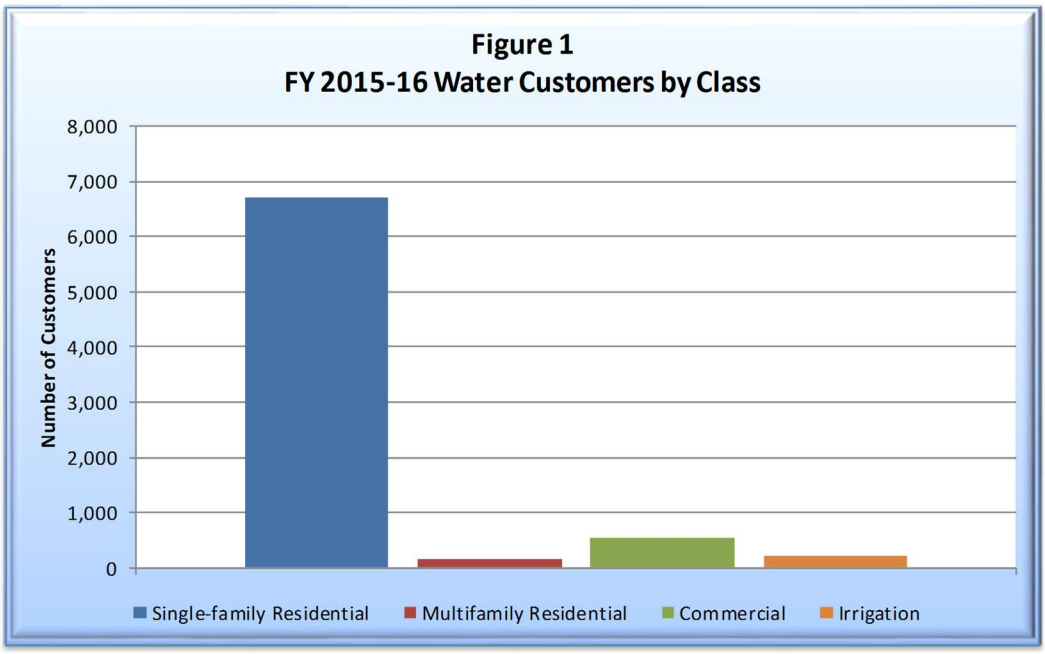
[1] Accounts are forecast to increase based on the assumed growth rate of 0.5% annually.

Table 5
Projected Number of Water Meters

	Actual	Projected				
Description	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Active Water Accounts [1]						
5/8 & 3/4 inch	293	294	296	297	299	299
1 inch	7,070	7,103	7,135	7,168	7,200	7,233
1-1/2 inch	114	114	114	114	114	115
2 inch	150	150	150	150	150	150
3 inch	26	26	26	26	26	26
4 inch	16	16	16	16	16	16
Total Accounts	7,669	7,703	7,737	7,771	7,805	7,839

[1] Historical accounts for FY 15-16 are provided through City billing records. Excludes fire protection.

Figure 1 shows the current number of customers by classification. The figure illustrates that SFR customers dominate the number of water accounts served by the System.



Water Sales Volumes

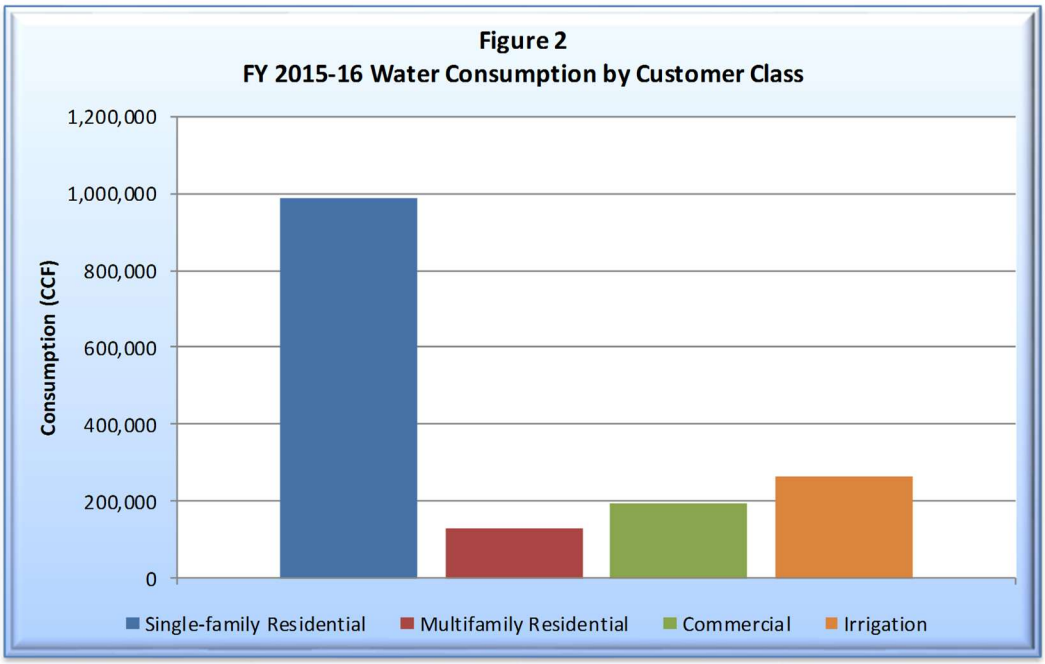
Table 6 provides the historical and projected water sales volume by customer classification. Water sales volumes were projected by recognizing the growth in the number of accounts and the FY 2015-16 use per customer.

Table 6
Projected Water Consumption (in Ccf)

	Actual	Projected				
Description	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Single-family Residential	989,111	994,118	999,125	1,004,131	1,009,138	1,014,145
Multifamily Residential	128,547	128,547	128,547	128,547	128,547	128,547
Commercial	195,224	195,224	195,224	195,224	195,224	195,224
Irrigation	265,310	265,310	265,310	265,310	265,310	265,310
Total Projected Consumption	1,578,192	1,583,199	1,588,206	1,593,212	1,598,219	1,603,226

[1] Forecast assumes that the use per customer from FY 15-16 and applied to the number of customers.

Figure 2 shows the projected water sales volume by customer classification for FY 2015-16. The figure shows that largest user of the water system is the SFR customer group. The second largest water consumer in terms of water sales volume are Irrigation customers.



Water Financial Plan

The financial plan provides the means of analyzing the revenue and revenue requirements of the water system and its impact on reserves as well as the ability to fund on-going operation and maintenance expense and capital infrastructure requirements. This section of the Report discusses the projection of revenue, operation and maintenance expenses, capital improvement needs of the water system and its financing, debt service requirements, and revenue adjustments needed to maintain a sustainable water enterprise.

Revenues

The City receives operating and capital revenue from several sources. Operating revenue is received from rates and charges for water service. Revenue from water rates is projected by applying the current water rates to the projected number of accounts and consumption volume. Miscellaneous revenue received includes penalties/late fees, water turn on fees, interest income and other sources. Capacity charge revenue is directly received into the capital fund. Table 7 presents the projected revenue from current water rates of the System.

Table 7
Projected Rate-based Water Revenue Using Existing Rates

Description	Projected				
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Water Service Revenues					
Fixed Charges [1]	$1,717,546	$1,724,470	$1,731,394	$1,738,318	$1,745,445
Variable Charges [2]	1,337,668	1,340,703	1,343,737	1,346,772	1,349,807
Metered Water Sales (Ccfs)	1,583,199	1,588,206	1,593,212	1,598,219	1,603,226

[1] FY 16-17 and forecast years' revenue calculated by multiplying current water service rate by the number of projected meters.
[2] FY 16-17 and forecast years' revenue calculated by multiplying projected water sales by the current varible rates.

Revenue Requirements

Revenue requirements of the water system include operation and maintenance expense, annual replacement transfer, and new debt service payments. Each of these items are discussed below.

Operation and Maintenance Expense

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

O&M has been projected recognizing the major expense categories of personnel services, electric power expense, chemicals, all other expenses, and capital outlay. Personnel costs consist of salaries and benefits expense of those personnel directly involved with providing water service. Future personnel costs are projected to increase by 3.5 percent annually. Electric power expense is projected to increase annually at 4 percent while chemicals expense increases by 2 percent. All other O&M expense is projected to increase by 5 percent annually. Capital outlay is projected to increase by 3 percent annually. Table 8 provides a summary of the O&M expenses for the Study period.

Table 8
Projected Water Operation and Maintenance Expenses

Description	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Waterline Maintenance					
Salaries and Benefits	944,367	977,420	1,011,631	1,047,037	1,083,682
Electricity	440,000	457,600	475,904	494,940	514,738
Other O&M	425,550	446,828	469,172	492,630	517,262
Capital Outlay	22,000	23,200	24,400	25,600	26,900
Total Maint Expense	$1,831,917	$1,905,048	$1,981,107	$2,060,207	$2,142,582
Waterline Administration					
Salaries and Benefits	303,249	313,864	324,849	336,218	347,986
Electricity	12,000	12,480	12,979	13,498	14,038
Other O&M	225,550	236,829	248,672	261,105	274,162
Capital Outlay	47,888	50,282	52,796	55,437	58,210
Total Admin Expense	$588,687	$613,455	$639,296	$666,258	$694,396
Total O&M Expense	$2,420,604	$2,518,503	$2,620,403	$2,726,465	$2,836,978

Annual Replacement Transfer

Water line replacements occur on an annual basis for most water systems. The City plans for water line replacements in its capital planning and these replacements occur from time to time during the fiscal year. An annual amount is transferred from the operating fund to the capital fund to aid in funding these replacements. The amount is approximately equal to projected depreciation expense, which increases as new fixed assets are booked from the City's capital improvement program.

Debt Service

The City does not have any outstanding debt on the water system. However, new debt is assumed to fund the Well 10 Storage/Pumping Project and 16-inch High Pressure Main Project in the amount of $8.2M in FY 2018-19. The proposed debt issue is projected to have annual debt service payments of about $602,700 with terms that include an interest rate of 5 percent and 30-year repayment term.

Water Capital Improvement Program

The City has developed a capital improvement program (CIP) provided in Table 9 that lists capital expenditures for FY 2016-17 through FY 2020-21. Over this period the City projects that it would expend approximately $18,165,000. The major improvements include Well 10 Storage/Pumping Project and 16-inch High Pressure Main Project. Other projects include well rehabilitations and water line replacements.

Table 9
Water Capital Improvement Program With Sources and Uses of Funds

	Projected				
Description	**FY 16-17**	**FY 17-18**	**FY 18-19**	**FY 19-20**	**FY 20-21**
Current Capital Improvement Projects (CIP) [1]					
Water Conservation Program	$150,000	$103,000	$159,100	$142,100	$146,300
Old Town Pipe Replacement	-	-	559,700	704,200	917,300
C Street (Johnson to 6th)	332,888	-	-	-	-
C Street (6th to Yosemite)	235,360	-	-	-	-
C Street (Yosemite to 1st)	-	206,000	-	-	-
Magnolia, Kimball, Pleas., Del Rio	-	850,200	-	-	-
Ash, H Street	-	-	304,900	-	-
1st, 3rd, Birdwell, Gilbert	-	-	-	186,400	-
16" High Pressure Main	-	289,400	2,683,000	-	-
Water Meter Replacement	768,177	-	-	-	-
Well Improvements	-	412,000	302,400	-	-
Water Tank Burchell	162,559	-	-	-	-
Various Maintenance Projects	339,007	-	-	-	-
Well 10	1,050,993	-	-	-	-
Well 11	-	-	-	-	-
Well 10 Storage/Pumping	-	592,300	5,490,200	-	-
Surface Water Project Studies	75,000	77,300	79,600	82,000	84,400
Valley View Booster/Tank	-	618,000	-	-	-
Total Water CIP	**$3,176,002**	**$3,148,200**	**$9,578,900**	**$1,114,700**	**$1,148,000**
Sources and Uses of Capital Funds					
Beginning Year Balance [2]	$5,220,600	$2,896,268	$1,239,244	$1,222,370	$1,734,475
Capacity Charge Revenue	435,000	247,600	247,600	247,600	247,600
Replacement Transfer from Operations	416,670	1,243,576	1,114,425	1,379,206	1,378,699
New Bond Proceeds (net of issuance costs)	-	-	8,200,000	-	-
Capital Improvement Projects (CIP)	(3,176,002)	(3,148,200)	(9,578,900)	(1,114,700)	(1,148,000)
Ending Balance	**$2,896,268**	**$1,239,244**	**$1,222,369**	**$1,734,476**	**$2,212,774**
Target Capital Reserve Level [3]	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000

[1] CIP Source: FY 16-17 CIP.
[2] The available cash balance includes Capital Facilty Fund reserves. Information for FY 16-17 from Budget.
[3] The Capital Reserve includes Capital Replacement and Capital Facility reserves.

The CIP is funded through use of capital reserves, capacity charge revenue, annual replacement transfer, and proceeds from a proposed new debt issue discussed above. The sources and uses of funds for the capital fund is shown near the bottom of Table 9 and illustrates how the CIP will be funded.

Water Financial Plan

A financial plan has been prepared that includes the revenues and revenue requirements that were identified for the water system and is presented in Table 10. The plan incorporates specific financial planning criteria to provide guidance to maintain the health of the water utility on an on-going basis. The criteria included the following.

- Generate positive levels of income in each year of the Study period
- Maintain the operating and capital reserves at or greater than target levels
- Maintain debt service coverage ratios at or greater than the minimum required
- Maintain the annual capital replacement transfer

Proposed Revenue Adjustments

Table 10 provides the annual revenue increases recommended to meet the financial planning criteria for the five-year Study period. The financial plan indicates that a 15 percent increase is recommended on April 1, 2017 and on January 1, 2018 and January 1, 2019, followed by 2 percent increases on each January for the remainder of the Study period. The increases are necessary to meet the planning criteria discussed above.

Table 10
Water Financial Plan

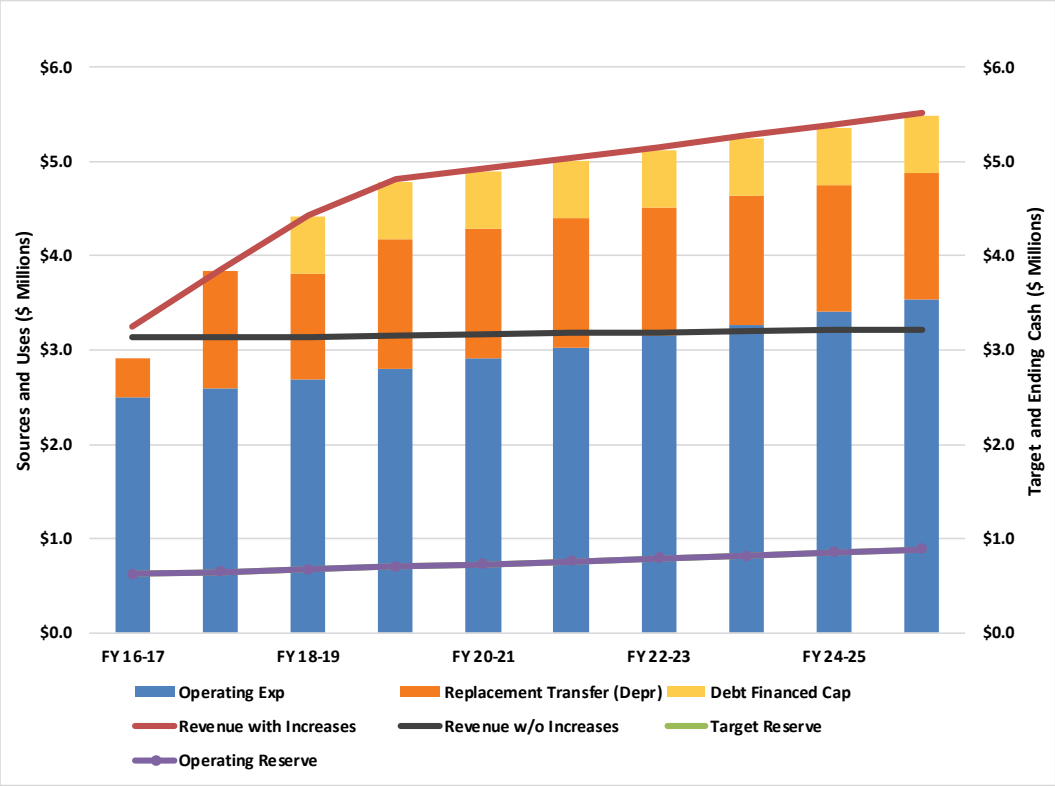
	Projected				
Description	**FY 16-17**	**FY 17-18**	**FY 18-19**	**FY 19-20**	**FY 20-21**
Proposed Revenue Increase (April 1)	**15.0%**				
Proposed Revenue Increase (January 1)		**15.0%**	**15.0%**	**2.0%**	**2.0%**
Sources of Funds					
Rate-based Revenues, Existing Rates [1]	$3,055,214	$3,065,173	$3,075,131	$3,085,090	$3,095,252
Total Additional Water Sales Revenue [2]	114,571	724,147	1,296,745	1,653,867	1,754,406
Miscellaneous Income	65,000	65,000	65,000	65,000	65,000
Interest Income	11,289	6,759	1,653	5,414	6,719
Total Sources of Funds	$3,246,074	$3,861,079	$4,438,529	$4,809,371	$4,921,377
Uses of Funds					
O&M and Capital Outlay	$2,495,604	$2,593,503	$2,695,403	$2,801,465	$2,911,978
Replacement Transfer (Depr)	416,670	1,243,576	1,114,426	1,379,206	1,378,699
New Bond Debt Service	0	0	602,700	602,700	602,700
Total Uses of Funds	$2,912,274	$3,837,079	$4,412,529	$4,783,371	$4,893,377
Net Funds Available	**$333,800**	**$24,000**	**$26,000**	**$26,000**	**$28,000**
Available Reserves					
Beginning available reserves [3]	$290,200	$624,000	$648,000	$674,000	$700,000
Additions (reductions)	333,800	24,000	26,000	26,000	28,000
Ending available reserves	**$624,000**	**$648,000**	**$674,000**	**$700,000**	**$728,000**
Target Reserves [4]	$624,000	$648,000	$674,000	$700,000	$728,000
Above (below) Target	$0	$0	$0	$0	$0
Debt Service Coverage					
Net Revenues	$750,470	$1,267,576	$1,743,126	$2,007,906	$2,009,399
Annual Debt Service	$0	$0	$602,700	$602,700	$602,700
Coverage	0%	0%	289%	333%	333%

[1] Projected using the existing rates.
[2] Additional revenue from proposed rate adjustments.
[3] The available beginning FY 16-17 cash balance provided by City.
[4] Target reserve estimated at 25% of operation and maintenance expense.

A graphical depiction of the revenue and revenue requirements from Table 10 are presented in Figure 3. The revenue requirements consist of O&M (blue column), annual replacement transfer (orange column), and debt service payments (yellow column). Revenue using the current rates is shown as the black line while revenue with revenue adjustments is shown as the red line. The purple line represents the cash reserve balance at the end of year while the dark green line indicates the Target Reserve level.

Figure 3 shows that the revenue increases outlined in Table 10 are necessary to meet annual fund obligations, meet minimum debt service coverage ratios required by debt covenants, and maintaining the operating reserve. The figure shows that the operating fund balance (purple line) overlays the Target Reserve (green line) and the target level and the financial planning criteria is met in all years of the Study.

Figure 3
Water Financial Plan
Comparison of Revenue with Annual Obligations



Cost of Service

This section of the report discusses how the water system's operating and capital costs are allocated for use in designing rates. Establishing rates in California requires that the agency responsible for imposing property-related fees create a nexus between the cost of providing service and the rates to be imposed.

Industry Methodology

This Study uses methodologies from the American Water Works Association (AWWA) to allocate costs in an appropriate manner. AWWA is an industry trade organization providing guidance on operations and management of water utilities. General principles are provided to assist agencies with the design of water rates such that the rates may be consistent with local requirements while also recognizing state laws and legal framework. The AWWA guidelines have been used to conduct this Study and have been used in the design of the City's water rates while also following Proposition 218 and the recent San Juan Capistrano court decision.

The annual costs of providing water service from the financial plan are allocated to cost components according to industry standards provided in the American Water Works Association (AWWA) Manual M1. The methodology provides the basis to design rates to generate adequate revenue to meet estimated annual revenue requirements from the financial plan. Costs are then recovered through the most appropriate revenue mechanism, including fixed charges and variable charges.

Costs of Service to be Allocated

The annual cost of service consists of O&M expenses and capital costs of the water system. O&M expenses include costs related to water distribution, maintenance of the facilities, and general and administrative costs. Capital costs include annual capital replacement and debt service discussed in the financial plan.

To design rates for the water system, costs need to first be allocated to water system cost component based on the operating characteristics and design of the water system facilities. Cost allocations consider the average quantity of water consumed as well as the peak rate at which water is consumed. The System is designed to serve average and peak demands, and costs that are related to serving average and peak demands are allocated in a manner such that they may recovered appropriately.

The cost allocation components for water service are Base, Peaking, Meters and Services, Customer, Direct Fire Protection, and Conservation. A five-year average of the operating and capital costs of the water system are assigned to each of these parameters. The result is a percentage allocation of the annual costs of service to each cost component which is then applied to the annual revenue requirement. The total cost to be recovered from the users of the water system by cost component for each year of the Study is presented in Table 11.

Water Rate Design

The cost of service analyses described in the previous section provides the basis for water 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. This

section describes how water rates and charges are designed and includes the proposed schedule of water rates for implementation.

Table 11
Allocation of Revenue Requirements to Cost Component

Description	5-Year Average	Base	Peaking Max Day	Peaking Max Hour	Customer Meters/Serv	Customer Customer	Direct Fire Protection	Conservation
Waterline Maintenance								
Maintenance Personnel Services	$1,012,827	$309,709	$247,768	$347,188	$91,266	$0	$16,896	$0
Maintenance	946,924	571,091	161,358	159,316	41,880	0	13,279	0
Maintenance Capital Outlay	48,840	14,935	11,948	16,742	4,401	0	815	0
Total Waterline Maintenance	$2,008,591	$895,735	$421,074	$523,246	$137,547	$0	$30,990	$0
Waterline Administration								
Admin Personnel Services	$325,233	$34,808	$27,847	$39,020	$10,257	$211,401	$1,899	$0
Admin Maintenance	262,263	28,069	22,455	31,465	8,271	170,471	1,531	0
Admin Capital Outlay	52,923	5,664	4,531	6,350	1,669	34,400	309	0
Total Waterline Administration	$640,419	$68,541	$54,833	$76,835	$20,198	$416,272	$3,739	$0
Conservation Program	75,000	0	0	0	0	0	0	75,000
Total Average O&M	$2,724,010	$964,276	$475,907	$600,081	$157,745	$416,272	$34,729	$75,000
Capital Costs								
Replacement Transfer (Depr)	$1,106,515	$338,358	$270,687	$379,303	$99,708	$0	$18,459	$0
Current Debt Service (incl principal)	0	0	0	0	0	0	0	0
New Bond Debt Service	361,620	110,579	88,463	123,960	32,586	0	6,033	0
Additional CIP Funding	0	0	0	0	0	0	0	0
Total Average Capital	$1,468,135	$448,937	$359,150	$503,263	$132,294	$0	$24,492	$0
Adjustments								
Revenue Offsets	($71,367)	($25,263)	($12,468)	($15,722)	($4,133)	($10,906)	($910)	($1,965)
Adjustments to Annual Cash Balance	87,560	30,995	15,297	19,289	5,071	13,381	1,116	2,411
Adjustments to Annualize Rate Increase	201,606	71,367	35,222	44,413	11,675	30,809	2,570	5,551
Total Average Adjustments	$217,800	$77,099	$38,051	$47,980	$12,613	$33,283	$2,777	$5,997
Total Average Revenue Requirement	$4,409,945	$1,490,312	$873,108	$1,151,324	$302,652	$449,556	$61,998	$80,997
Percentage Allocation		33.8%	19.8%	26.1%	6.9%	10.2%	1.4%	1.8%

Cost Allocation Summary	Year	Total Revenue Requirement	Base	Peaking Max Day	Peaking Max Hour	Customer Meters/Serv	Customer Customer	Direct Fire Protection	Conservation
	FY 16-17	$3,513,496	$1,187,363	$695,623	$917,284	$241,129	$358,170	$49,395	$64,532
	FY 17-18	4,053,691	1,369,919	802,574	1,058,315	278,202	413,239	56,989	74,453
	FY 18-19	4,676,890	1,580,524	925,959	1,221,016	320,972	476,768	65,751	85,900
	FY 19-20	4,785,877	1,617,355	947,537	1,249,470	328,452	487,879	67,283	87,901
	FY 20-21	$4,897,674	$1,655,136	$969,671	$1,278,657	$336,124	$499,275	$68,855	$89,955

Proposed Rate Structure

The recommended water rates include modifying the current rate structure such that the fixed charge by meter size remains but the variable charge is modified to provide an individual uniform volume charge for all customers. The design of the fixed charges and variable charges are discussed below.

Proposed Fixed Charges

The proposed fixed charges recover the Meters and Services and Customer costs of service identified from Table 11 and recovers costs related to public fire protection. Meters and Services costs are recovered based on meter

and service ratios provided by AWWA. Customer and public fire protection costs are recovered based on the number of bills issued.

Tables 12 below presents the design of the proposed monthly fixed charges for water customers. The current fixed charges generate about 56 percent of revenue from water rates. The proposed fixed charges generate approximately 30 percent of the revenue from water rates.

Table 12
Design of Fixed Charges

Customer Service Cost	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Customer Cost	$358,170	$413,239	$476,768	$487,879	$499,275
Public Fire Protection	477,796	550,227	633,648	647,209	661,113
Customer Cost per Unit	$835,966	$963,466	$1,110,416	$1,135,088	$1,160,388
Number of Bills	92,436	92,844	93,252	93,660	94,068
Customer Cost per Unit	$9.04	$10.38	$11.91	$12.12	$12.34

Meters and Services Cost	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Meters and Services Cost	$241,129	$278,202	$320,972	$328,452	$336,124
Number of Equivalent Meters & Services	98,623	99,031	99,439	99,847	100,258
Meters and Services Cost per Unit	$2.44	$2.81	$3.23	$3.29	$3.35
Base Fixed Charge - 5/8" thru 1"	$11.48	$13.19	$15.14	$15.41	$15.69

Fixed charges for meter sizes greater than 1-inch are increased as shown below in Table 13 for FY 2016-17 and reflect changes in the Meter and Services Charge from application of meter and service cost ratios.

Table 13
Design of Fixed Charges by Meter Size
FY 16-17

Meter Size	Meter & Service Ratio	Meters & Services Charge	Fire Protection Charge	Customer Charge	Total Monthly Charge
inches					
5/8 & 3/4 inch	1.00	$2.44	$5.17	$3.87	$11.48
1 inch	1.00	$2.44	$5.17	$3.87	$11.48
1-1/2 inch	1.29	$3.14	$5.17	$3.87	$12.18
2 inch	2.07	$5.05	$5.17	$3.87	$14.09
3 inch	7.86	$19.17	$5.17	$3.87	$28.21
4 inch	10.00	$24.40	$5.17	$3.87	$33.44

The fixed charges for future years are designed in the same manner as discussed above and are presented in Table 14.

Table 14
Proposed Monthly Fixed Charges

	Current Rate	April 1, FY 16-17	January 1, FY 17-18	January 1, FY 18-19	January 1, FY 19-20	January 1, FY 20-21
Meter Size	Fixed Charge ($ per month)					
5/8 & 3/4 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1-1/2 inch	$33.95	$12.18	$13.99	$16.06	$16.35	$16.65
2 inch	$54.60	$14.09	$16.20	$18.60	$18.94	$19.28
3 inch	$108.66	$28.21	$32.46	$37.29	$37.97	$38.66
4 inch	$169.77	$33.44	$38.48	$44.21	$45.02	$45.84

Private Fire Protection Fixed Charges. Annual costs allocated to the Fire Protection cost component are separated into Public and Private Fire Protection costs. Public Fire Protection costs are included into the monthly service charges as shown in Table 12 and Table 13. Private Fire Protection costs are recovered from those customers that receive the direct fire protection benefit. The monthly cost by equivalent hydrant size is provided in Table 15 and the monthly private fire protection charges are designed as shown in Table 16.

Table 15
Design of Private Fire Protection Charges

Fire Protection Cost	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Private Fire Protection	$21,939	$25,259	$29,083	$29,699	$30,330
Private Fire Protection Eq. Hydrants	464	464	464	464	464
Private Fire Protection	$47.28	$54.44	$62.68	$64.01	$65.37

Table 16
Design of Private Fire Protection Charges
FY 16-17

Hydrant Size	Hydrant Ratio	Monthly Hydrant Charge
1 inch	0.01	$0.42
1-1/2 inch	0.03	$1.23
2 inch	0.06	$2.63
3 inch	0.16	$7.64
4 inch	0.34	$16.28
6 inch	1.00	$47.28
8 inch	2.13	$100.77
10 inch	3.83	$181.21

Proposed Variable Charges

Variable charges are designed to recover the Base, Peaking, and Conservation costs for all customers. The proposed variable charges are designed to be uniform volume charges that apply to all customers. The design of the proposed variable charges for FY 2016-17 and future years are presented in Table 17.

Table 17
Design of Uniform Volume Charge

Base Cost/Uniform Volume Charge	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Base Cost	$1,187,363	$1,369,919	$1,580,524	$1,617,355	$1,655,136
Conservation Cost	64,532	74,453	85,900	87,901	89,955
Peaking Cost less Fire Protection	1,162,567	1,342,392	1,549,996	1,587,383	1,625,740
Total Costs	$2,414,462	$2,786,764	$3,216,419	$3,292,639	$3,370,832
Units of Service (Ccf)	1,583,199	1,588,206	1,593,212	1,598,219	1,603,226
Uniform Volume Charge ($/Ccf)	$1.53	$1.75	$2.02	$2.06	$2.10
Units of Service (CCF) with Demand Response	1,551,535	1,556,442	1,561,348	1,566,255	1,571,161
Uniform Volume Charge	$1.56	$1.80	$2.07	$2.11	$2.15

Proposed Water Rates

Table 18 presents the proposed fixed charges and variable charges for the water system for the next five years. Table 18 includes the current fixed charges, fixed charges for April 2017 developed in the tables above, and the future fixed charges for implementation beginning on January 1, 2018 and each January 1 through FY 2020-21.

Table 18 also provides the proposed variable charges for the water system. The table includes the current variable charges by rate tier for an assumed 1-inch meter, the variable charge for the new rate structure for April 2017 developed in the Study, and the future variable charges for implementation beginning on January 1, 2018 and each January 1 through FY 2020-21.

Bill Impact Analysis

An impact analysis was performed to evaluate the change in Oakdale single-family customer bills that would occur from the implementation of the proposed water rates for the April 2017 rate structure implementation. The impacts are provided in Table 19 below. For an average single-family customer with a 1-inch or smaller meter size using the average consumption of 12 hundred cubic feet (CCF) monthly, the bill will increase from $22.13 to $30.20, and increase of $8.07 or 36.5 percent.

Table 18
Proposed Water Fixed Charges and Variable Charges

	Current Rate	April 1, FY 16-17	January 1, FY 17-18	January 1, FY 18-19	January 1, FY 19-20	January 1, FY 20-21
Meter Size	Fixed Charge ($ per month)					
5/8 & 3/4 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1-1/2 inch	$33.95	$12.18	$13.99	$16.06	$16.35	$16.65
2 inch	$54.60	$14.09	$16.20	$18.60	$18.94	$19.28
3 inch	$108.66	$28.21	$32.46	$37.29	$37.97	$38.66
4 inch	$169.77	$33.44	$38.48	$44.21	$45.02	$45.84
	Variable Charge ($ per HCF)					
Example Meter Size (1-inch and less)						
Tier 1 - 0 to 6 units	$0.00					
Tier 2 - 7 to 17 units	$0.86					
Tier 3 - 18 to 27 units	$1.28					
Tier 4 - Over 27	$1.70					
All Consumption		$1.56	$1.80	$2.07	$2.11	$2.15

Table 19
Comparison of Current Single-family Residential Monthly Bill with Proposed Monthly Bill Using April 2017 Water Rates

Single-family Residential									
Bills in Block	Usage (HCF)	Service Charge	Volume Charge	Current Bill	Service Charge	Volume Charge	Proposed Bill	Dollar Difference	% Change
32,318	7	$16.97	$0.86	$17.83	$11.48	$10.92	$22.40	$4.57	25.6%
31,060	17	$16.97	$9.46	$26.43	$11.48	$26.52	$38.00	$11.57	43.8%
15,791	40	$16.97	$44.36	$61.33	$11.48	$62.40	$73.88	$12.55	20.5%
1,019	50	$16.97	$61.36	$78.33	$11.48	$78.00	$89.48	$11.15	14.2%
399	60	$16.97	$78.36	$95.33	$11.48	$93.60	$105.08	$9.75	10.2%
205	70	$16.97	$95.36	$112.33	$11.48	$109.20	$120.68	$8.35	7.4%

Water Rate Survey

A water rate survey was conducted for neighboring communities to the City of Oakdale. Chart 1 compares the Oakdale single-family residential estimated monthly water bill with those of neighboring communities at the same consumption of 12 CCF monthly. The rate survey includes rate schedules in effect October 2016. Water bills for Oakdale are shown using the current rates and the proposed rates for implementation April ,1 2017. The chart indicates that with the April 2017 water rate structure change, an Oakdale single-family residential customer

using the average monthly consumption of 12 CCF will experience a bill that is in the mid-range of the communities listed.

Chart 1
Single-family Residential Monthly Water Bills Using 12 CCF
For Rates in Effect October 2016

Note: Above table uses water rates in effect October 2016. Oakdale April 2016 bill is based on the rate structure and rates in Table 17.

Wastewater Financial Planning

Financial planning for the wastewater enterprise includes identifying and projecting revenues and revenue requirements of the wastewater 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 obligations and provide the basis for revenue adjustments. New wastewater rates and charges are created to recover all of the City's annual operating and capital costs associated with the wastewater system.

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

Current Wastewater Rates

The current wastewater rates consist of fixed and variable charges to residential and non-residential customers. Residential and Schools are charged a fixed charge per month. Commercial (including Municipal) and Industrial customers are charged a fixed charge and variable charge. The current rates are presented in Table 20.

Table 20
Current Wastewater Rates
Effective July 1, 2016

Classification	Fixed Charges	Variable Charges [2]
	$/month	$/Ccf
Residential	$58.35	NA
Commercial Standard Strength (C1)	36.29	2.52
Commercial High Strength (C2)	36.29	4.03
Oakdale Unified Schools (each 20 ADA)	36.29	NA
Industrial	$27.28	NA

Industrial [2]		Strength
BOD Range in mg/l		$/Ccf
From	To	
200	300	$1.77
301	700	1.88
701	1000	3.15
1001	1500	3.35
1501	2000	3.64
2001	2500	4.25
2501	3000	4.62
Over	3000	$6.13

[1] Residential customers are charged a flat rate per month.
Non-residential customers are charged on water consumption.
[2] Sconza Candy Co. is the only Industrial customer.

Wastewater User Classifications

Number of Customers

The City currently classifies wastewater customers as Residential, Multifamily, Commercial, Schools, Industrial, and Municipal. Residential and Multifamily wastewater customers account for about 93 percent of the total customers served by the wastewater system. Growth is projected to occur only in SFR accounts at a rate of 0.50 percent annually or 34 accounts added each year, following the assumptions listed in Table 1. Table 21 provides the historical and projected number of customers by classification.

Table 21
Projected Wastewater Customers by Classification

	Actual	Projected				
Customer Class	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Number of Accounts						
Residential [1]	6,660	6,693	6,726	6,760	6,794	6,828
Multifamily Residential	163	163	163	163	163	163
Commercial Std Strength (C1)	454	454	454	454	454	454
Commercial High Strength (C2)	54	54	54	54	54	54
Oakdale Unified Schools	4	4	4	4	4	4
Industrial (Sconza)	1	1	1	1	1	1
Municipal (CO)	6	6	6	6	6	6
Total Accounts	7,342	7,375	7,408	7,442	7,476	7,510
Number of Dwelling Units						
Residential [1]	6,660	6,693	6,726	6,760	6,794	6,828
Multifamily Residential	1,831	1,831	1,831	1,831	1,831	1,831

[1] Accounts are forecast to increase based on the assumed growth rate of 0.5% annually.

Figure 4 shows the current number of customers by classification and illustrates that single-family residential customers are the largest group served by the wastewater system.

Water Sales Volumes of Wastewater Customers

Table 22 provides the historical and projected water sales volumes of wastewater customers by classification. Water sales volumes were projected by recognizing the growth in the number of accounts and the FY 2015-16 use per customer. Residential and Multifamily account for more than 86 percent of the water sales volumes of wastewater customers.

The water sales volumes of wastewater customers are used to calculate projected wastewater revenue and estimate wastewater discharge volumes. The wastewater discharge volumes are used for cost allocation purposes to assign cost responsibility based on wastewater flow and strength of each class when establishing wastewater rates.

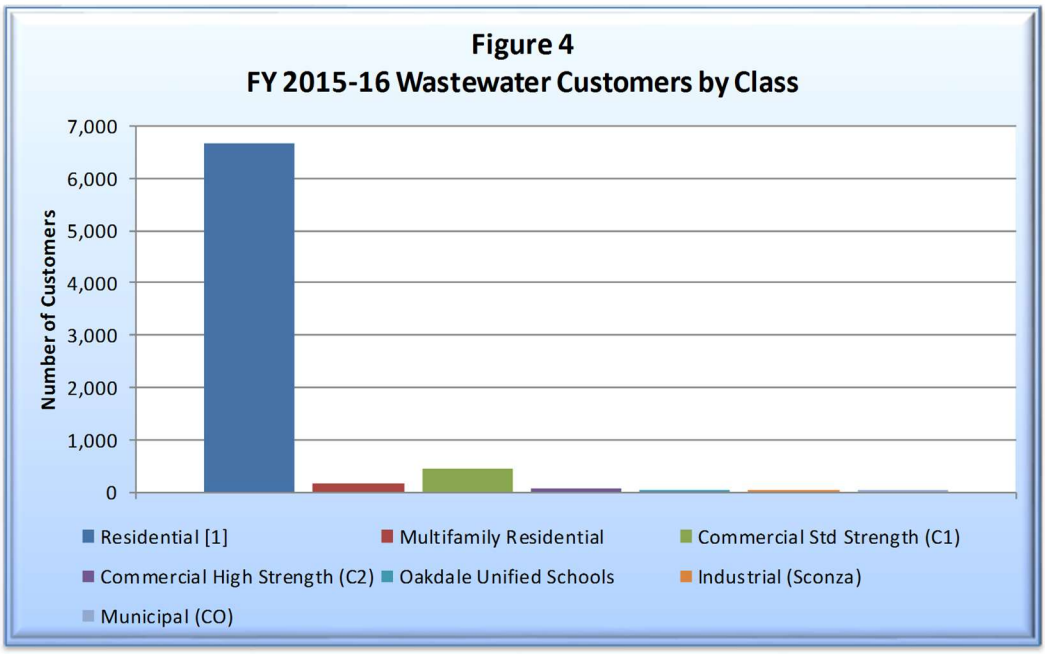


Table 22
Projected Water Consumption of Wastewater Customers (in Ccf)

Description	Actual	Projected [1]				
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Residential	989,111	994,012	998,913	1,003,963	1,009,013	1,014,062
Multifamily Residential	128,547	128,547	128,547	128,547	128,547	128,547
Commercial Std Strength (C1)	120,872	120,872	120,872	120,872	120,872	120,872
Commercial High Strength (C2)	27,136	27,136	27,136	27,136	27,136	27,136
Oakdale Unified Schools	6,641	6,641	6,641	6,641	6,641	6,641
Municipal (CO)	320	320	320	320	320	320
Total Projected Consumption	1,272,628	1,277,528	1,282,429	1,287,479	1,292,529	1,297,578

[1] Forecast assumes that the use per customer from FY 15-16 and applied to the number of customers.

Wastewater Financial Plan

The financial plan provides the means of analyzing the revenue and revenue requirements of the wastewater system and its impact on reserves as well as the ability to fund on-going operation and maintenance expense and capital infrastructure requirements. This section of the Report discusses the projection of revenue, operation and maintenance expenses, capital improvement needs of the wastewater system and its financing, debt and debt service requirements, and revenue adjustments needed to maintain a sustainable wastewater enterprise.

Revenues

The City receives operating and capital revenue from several sources. Operating revenue is received from rates and charges for wastewater service. Other revenue includes interest income and miscellaneous sources. Capital revenue sources include wastewater capacity charges.

Table 23 presents the projected fixed and variable rate revenue from current wastewater rates of the wastewater system. The revenue is projected by applying the current wastewater rates from Table 20 to the projected number of accounts and consumption volume.

Table 23
Projected Rate-based Wastewater Revenue Using Existing Rates

Description	Projected				
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Water Service Revenues					
Fixed Charges [1]	$6,279,504	$6,279,504	$6,279,504	$6,279,504	$6,279,504
Variable Charges [2]	413,956	413,956	413,956	413,956	413,956
Subtotal Revenues From Current Rates	$6,693,460	$6,693,460	$6,693,460	$6,693,460	$6,693,460
Extra Strength Charges	117,940	117,940	117,940	117,940	117,940
Total Revenues From Current Rates	$6,811,399	$6,811,399	$6,811,399	$6,811,399	$6,811,399

[1] FY 16-17 and forecast years' revenue calculated by multiplying current wastewater service rate by the number of customers.
[2] FY 16-17 and forecast years' revenue calculated by multiplying projected water volumes by the current varible rates.

Revenue Requirements

Revenue requirements of the wastewater system include operation and maintenance expense, annual replacement transfer, existing debt service payments, SRF loan reserve payment, and additional CIP funding. Each of these items are discussed below.

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 system, lift stations, and treatment and disposal facilities. Costs also include technical services and other general and administrative expenses.

O&M has been projected recognizing the major expense categories of personnel services, electric power expense, capital outlay, and all other expenses. Personnel costs consist of salaries and benefits expense of those personnel directly involved with providing wastewater service. Future personnel costs are projected to increase by 3.5 percent annually beginning in FY 2016-17. Electric power expense is projected to increase annually at 4 percent while chemicals expense increases by 2 percent. All other O&M expense is projected to increase by 2 percent annually. Capital outlay is projected to increase by 3 percent annually. Table 24 provides a summary of the wastewater O&M expenses for the Study period.

Table 24
Projected Wastewater Operation and Maintenance Expenses

Description	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Storm Drains					
Electricity	$8,000	$8,320	$8,653	$8,999	$9,359
Other O&M	46,000	43,860	44,737	45,631	46,544
Total Maint Expense	$54,000	$52,180	$53,390	$54,630	$55,903
WW Control Plant					
Salaries and Benefits	$553,333	$572,050	$592,071	$612,793	$634,241
Electricity	330,000	343,200	356,928	371,205	386,053
Other O&M	462,545	460,576	469,786	479,179	488,763
Total Maint Expense	$1,345,878	$1,375,826	$1,418,785	$1,463,177	$1,509,057
Sewer Line Maintenance					
Salaries and Benefits	$767,322	$794,178	$821,976	$850,745	$880,521
Electricity	6,000	6,240	6,490	6,750	7,020
Other O&M	361,650	356,541	363,671	370,944	378,361
Total Admin Expense	$1,134,972	$1,156,959	$1,192,137	$1,228,439	$1,265,902
Administration					
Salaries and Benefits	$303,250	$313,865	$324,850	$336,219	$347,987
Electricity	13,000	13,260	13,525	13,796	14,072
Other O&M	269,905	260,003	265,202	270,507	275,916
Capital Outlay	6,300	6,489	6,684	6,884	7,091
Total Admin Expense	$592,455	$593,617	$610,261	$627,406	$645,066
Total O&M Expense	$3,127,305	$3,178,582	$3,274,573	$3,373,652	$3,475,928

Annual Replacement Transfer

The City plans for replacements in the wastewater system that occur from time to time during the fiscal year. An annual amount is transferred from the operating fund to the capital fund to aid in funding these replacements. The annual amount is approximately equal to projected depreciation expense of $1,500,000.

Existing Debt Service

The City currently has outstanding debt on the wastewater system from a 2002 Revenue Bond issue (2002 Bonds) and a State Revolving Fund (SRF) loan administered by the State Water Resources Control Board. The 2002 Bonds have annual debt service of about $208,000. The SRF loan was re-negotiated several years ago and has escalating annual debt service payments that reaches about $1,050,000 in FY 2018-19. The 2002 Sewer Bonds will be retired in FY 2022 while the SRF loan will be retired in FY 2032.

SRF Loan Reserve Payment

As part of the original agreement for the SRF loan, the City is required to build a loan reserve over a 10-year period equal to 1/10th of the annual sum of the SFR loan payments. This payment totals $116,500 annually.

Additional CIP Funding

Additional funding is provided to the capital fund from the operating fund when such funds are available on an annual basis. These transfers are made to the capital fund for use towards meeting the capital improvement expenditures.

Wastewater Capital Improvement Program

The City has developed a capital improvement program (CIP) listing capital expenditures for FY 2016-17 through FY 2020-21, presented in Table 25. Major projects include the River Crossing Replacement, Pump Station Electrical Improvements, Kimball Trunk Rehabilitation, and Emergency Storage Ponds.

Table 25
Wastewater Capital Improvement Program With Sources and Uses of Funds

	Budget	Projected			
Description	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Current Capital Improvement Projects (CIP) [1]					
Update Sewer Maps	$15,000	$0	$0	$0	$0
River Crossing Replacement	177,000	1,518,200	1,563,800	-	-
Assess - Lower Kimball Trunk	40,000	-	-	-	-
Assess - Lower Oak Trunk	-	77,300	-	-	-
Assess - Maple Trunk	-	-	31,800	-	-
Assess - Kimball Trunk (Sierra Avenue)	-	-	-	27,300	-
Assess - Kimball Trunk (Yosemite)	-	-	-	54,600	-
Kimball Trunk Rehabilitation	-	-	-	-	2,518,300
Assess - Oak Trunk (H Street)	-	-	-	-	56,300
Sierra & D Pump Station Upgrade	1,375,000	-	-	-	-
PS Electrical Improvements	-	1,946,700	-	-	168,800
PS Access Hatch Improvements	-	-	-	-	28,700
S. Willowood PS Replacement	-	370,800	-	-	-
Sludge Drying Bed Liner - 1	169,000	-	-	-	-
Secondary Clarifier 1 Mechanism	375,000	-	-	-	-
Standby Power (Aeration Basins)	500,000	-	-	-	-
Addition of Dewatering Press	375,000	-	-	-	-
Sludge Drying Bed Liner - 2	-	-	-	-	190,200
Hydrants at Aeration Basins	-	-	119,400	-	-
Aeration Basin Air Piping	-	-	145,900	-	-
Emergency Storage Ponds	-	-	-	1,429,300	-
Sludge Drying Bed Liner - 3	-	-	-	184,700	-
Filter Structure Safety Improvement	-	-	-	-	135,100
UV Disinfection System Improvements	-	418,400	-	-	-
2nd Street C to E	74,018	-	-	-	-
Total Water CIP	**$3,100,018**	**$4,331,400**	**$1,860,900**	**$1,695,900**	**$3,097,400**
Sources and Uses of Capital Funds					
Beginning Year Balance [2]	$6,820,800	$6,605,782	$5,005,411	$5,606,086	$6,272,766
Capacity Charge Revenue	66,300	66,300	68,300	68,300	68,300
Replacement Transfer from Operations	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Additional Funding from Net Operating Revenues	1,318,700	1,164,729	893,275	794,280	690,092
Capital Improvement Projects (CIP)	(3,100,018)	(4,331,400)	(1,860,900)	(1,695,900)	(3,097,400)
Ending Balance	**$6,605,782**	**$5,005,411**	**$5,606,086**	**$6,272,766**	**$5,433,757**
Target Capital Reserve Level [3]	$2,200,000	$2,200,000	$2,200,000	$2,200,000	$2,200,000

[1] CIP Source: FY 16-17 City CIP document.
[2] The available cash balance includes Capital Replacement and Capital Facility Fund reserves. Information for FY 16-17 from Budget.
[3] The Target Capital Reserve includes Capital Replacement and Emergency Capital reserves.

The CIP is funded through use of capital reserves, capacity charge revenue, annual replacement transfer, and additional funding from operating revenue as shown near the bottom of Table 25.

Wastewater Financial Plan

A financial plan has been prepared for the wastewater utility that includes the revenues and revenue requirements that were identified for the wastewater system and is presented in Table 26. The plan incorporates specific financial planning criteria to provide guidance to maintain the health of the wastewater utility on an on-going basis. The criteria included the following.

- Generate positive levels of income in each year of the Study period
- Maintain the operating and capital reserves at or greater than target levels
- Maintain debt service coverage ratios at or greater than the minimum required
- Meet annual capital replacement spending from the annual replacement transfer and capital reserves

Proposed Revenue Adjustments

Analysis of the revenues and revenue requirements of the wastewater financial plan indicate that no revenue adjustments are necessary. The current revenues are adequate to meet all obligations and financial planning criteria. Additional CIP funding (transfers to the capital fund) is possible as indicated in Table 26 at amounts that equal the surplus of the Operating Reserve level over the Target Reserve level on an annual basis.

Table 26
Wastewater Financial Plan

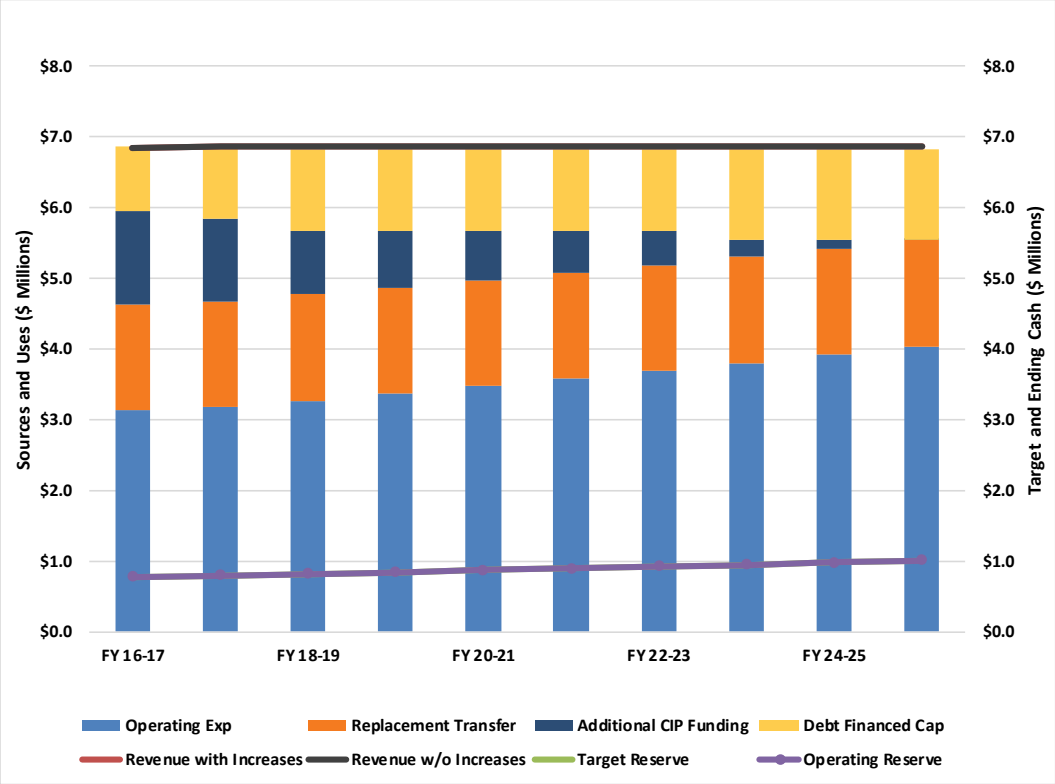
	Projected				
Description	**FY 16-17**	**FY 17-18**	**FY 18-19**	**FY 19-20**	**FY 20-21**
Proposed Revenue Increase (April 1)	**0.0%**				
Proposed Revenue Increase (January 1)		**0.0%**	**0.0%**	**0.0%**	**0.0%**
Sources of Funds					
Rate-based Revenues, Existing Rates [1]	$6,811,399	$6,811,399	$6,811,399	$6,811,399	$6,811,399
Miscellaneous Income	42,700	42,700	42,700	42,700	42,700
Interest Income	2,737	2,760	2,825	2,909	2,996
Total Sources of Funds	$6,856,836	$6,856,859	$6,856,924	$6,857,008	$6,857,095
Uses of Funds					
O&M and Capital Outlay	$3,127,305	$3,178,582	$3,274,573	$3,373,652	$3,475,928
Replacement Transfer	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Current Debt Service	794,332	884,048	1,048,576	1,048,576	1,048,576
SRF Loan Reserve Fund Payment	116,500	116,500	116,500	116,500	116,500
Additional CIP Funding	1,318,700	1,164,729	893,275	794,280	690,092
Total Uses of Funds	$6,856,836	$6,843,859	$6,832,924	$6,833,008	$6,831,095
Net Funds Available	**$0**	**$13,000**	**$24,000**	**$24,000**	**$26,000**
Available Reserves					
Beginning available reserves [2]	$782,000	$782,000	$795,000	$819,000	$843,000
Additions (reductions)	0	13,000	24,000	24,000	26,000
Ending available reserves	**$782,000**	**$795,000**	**$819,000**	**$843,000**	**$869,000**
Target Reserves [3]	$782,000	$795,000	$819,000	$843,000	$869,000
Above (below) Target	$0	$0	$0	$0	$0
Debt Service Coverage					
Net Revenues	$3,729,531	$3,678,277	$3,582,351	$3,483,356	$3,381,167
Annual Debt Service	$794,332	$884,048	$1,048,576	$1,048,576	$1,048,576
Coverage	470%	416%	342%	332%	322%

[1] Projected using the existing rates.
[2] The available FY 16-17 cash balance provided by the City.
[3] Target reserve estimated at 25% of operation and maintenance expense.

A graphical depiction of the revenue and revenue requirements from Table 26 are presented in Figure 5. The revenue requirements consist of O&M (blue column), annual replacement transfer (orange column), additional CIP funding (dark blue column), and debt service payments (yellow column). Revenue using the current rates is shown as the black line. The purple line represents the cash reserve balance at the end of year while the dark green line indicates the Target Reserve level.

The figure shows that the revenue received from the current rates are sufficient to meet the annual obligations over the Study period. The revenue received meets annual fund obligations, minimum debt service coverage ratios required by debt covenants, and the operating reserve. The figure shows that the operating fund balance (purple line) overlays the Target Reserve (green line) and the target level and the financial planning criteria is met in all years of the Study.

Figure 5
Wastewater Financial Plan
Comparison of Revenue with Annual Obligations



Wastewater Rates

The wastewater financial plan from Table 26 indicated that no revenue adjustments are required during the Study period. Therefore, it is proposed that the current rate structure and rates be kept in place.

Proposed Wastewater Rates

The proposed fixed charges and variable charges for wastewater service are provided in Table 27. The proposed wastewater rates are the same as the current rates stated in Table 20. Fixed charges generate about 92 percent of the revenue from wastewater rates.

Table 27

Proposed Wastewater Fixed Charges and Variable Charges

Effective July 1, 2016

Classification	Fixed Charges	Variable Charges [2]
	$/month	$/Ccf
Residential	$58.35	NA
Commercial Standard Strength (C1)	36.29	2.52
Commercial High Strength (C2)	36.29	4.03
Oakdale Unified Schools (each 20 ADA)	36.29	NA
Industrial	$27.28	NA

Industrial [2]		Strength
BOD Range in mg/l		$/Ccf
From	To	
200	300	$1.77
301	700	1.88
701	1000	3.15
1001	1500	3.35
1501	2000	3.64
2001	2500	4.25
2501	3000	4.62
Over	3000	$6.13

[1] Residential customers are charged a flat rate per month.
Non-residential customers are charged on water consumption.

[2] Sconza Candy Co. is the only Industrial customer.

Wastewater Bills

Since the single-family residential wastewater charge is a fixed charge per month, and because the proposed wastewater rates are the same as the current rates, there is no impact to the current SFR wastewater bill of $58.35 per month. There is no impact to the other customer classifications as well.

Wastewater Rate Survey

A wastewater rate survey was conducted for neighboring communities to the City of Oakdale. Chart 1 compares the Oakdale single-family residential monthly wastewater bill with those of neighboring communities. All of the bills are fixed charges per month and have no volume component.

The rate survey includes rate schedules in effect October 2016. Wastewater bills for Oakdale are shown using the proposed rates which are the same as the current rates.

Chart 2
Single-family Residential Monthly Wastewater Bills
For Rates in Effect October 2016

Note: Above table uses wastewater rates in effect October 2016. Oakdale April 2017 bill is based on the rate structure and rates in Table 26.

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Proposition 218 Notification

NOTICE TO PROPERTY OWNERS OF PUBLIC HEARING ON PROPOSED INCREASE TO WATER RATES

Hearing Date:	**March 6, 2017**
Time:	**At or after 7:00 PM**
Location:	**City of Oakdale Council Chambers** **277 N. 2nd Ave, Oakdale, CA 95361**

Why are you receiving this notice? This notice is being furnished to you by the City of Oakdale pursuant to the California Constitution Article XIIID (also known as "Proposition 218"). Under Proposition 218, the City is required to notify property owners of proposed changes to property-related fees such as water and sewer service. This letter serves as notice that the City will hold a public hearing on March 20, 2016, to consider changes to its current water rates.

What do water rates fund? The City provides water service to over 7,700 customers (residential and commercial) within the city limits. The water system must be financially self-sufficient. Monthly rates paid by users of the system are the primary source of revenue. All revenue generated from your water bill is used to maintain and operate the water system; it is not used for other general government purposes. These revenues must meet costs such as purchasing raw water, electricity, chemicals, maintenance, and salaries and benefits for utility staff. Additionally, revenue generated from these rates is used to pay off debt incurred in the process of building capital improvements to rebuild aging components of the system.

Why is the rate change required? The City recently completed an analysis of the capital project requirements of the water system. The utility requires extensive investment, primarily in the replacement and repair of aging pipes and other equipment, in order to maintain a safe and reliable system. These replacements will be funded primarily with rate revenues, and also by loans, and fees paid by new development connecting to the system.

Impact on your bill For a typical single family home that uses 12,700 gallons of water per month, the water portion of your bill would increase from $26.43 per month currently to $38.00 per month under the new rates. Low users of water and users who conserve water from their current levels will see smaller increases.

You can be heard Water rates are subject to majority protest, which means if a majority of impacted property owners or tenants of a parcel submit ***written protests*** against the increase, the City cannot institute the new rates. For your protest to be counted, please include the following:

1. Your name;
2. The address of the impacted property (or APN number); and,
3. Your signature.

Written protests are accepted by mail or personal delivery to the *City Clerk, City of Oakdale, 280 N. 3rd Ave, Oakdale, CA 95361* or in person at the public hearing on the date and time specified above, until the close of the public hearing. Protests submitted by email <u>will not be accepted</u>.

Questions? Please call the City Clerk's Office at (209) 845-3571.

CURRENT AND PROPOSED WATER RATES

	Current Rate	April 1, FY 16-17	January 1, FY 17-18	January 1, FY 18-19	January 1, FY 19-20	January 1, FY 20-21
Meter Size	Fixed Charge ($ per month)					
5/8 & 3/4 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1 inch	$16.97	$11.48	$13.19	$15.14	$15.41	$15.69
1-1/2 inch	$33.95	$12.18	$13.99	$16.06	$16.35	$16.65
2 inch	$54.60	$14.09	$16.20	$18.60	$18.94	$19.28
3 inch	$108.66	$28.21	$32.46	$37.29	$37.97	$38.66
4 inch	$169.77	$33.44	$38.48	$44.21	$45.02	$45.84
	Variable Charge ($ per HCF)					
Example Meter Size (1-inch and less)						
Tier 1 - 0 to 6 units	$0.00					
Tier 2 - 7 to 17 units	$0.86					
Tier 3 - 18 to 27 units	$1.28					
Tier 4 - Over 27	$1.70					
All Consumption		$1.56	$1.80	$2.07	$2.11	$2.15