

COMPREHENSIVE WATER, NON-POTABLE WATER AND SEWER RATE STUDY REPORT



City of San Juan Capistrano

April 22, 2014 FINAL REPORT

Prepared by:





201 S. Lake Avenue
Suite 301
Pasadena, CA 91101

Phone 626 . 583 . 1894
Fax 626 . 583 . 1411

www.raftelis.com

April 22, 2014

Mr. Keith Van Der Maaten
Public Works and Utilities Director
City of San Juan Capistrano
32400 Paseo Adelanto
San Juan Capistrano, CA 92675

Subject: Water, Non-Potable Water and Sewer Rate Study Report

Dear Mr. Van Der Maaten,

Raftelis Financial Consultants, Inc. (RFC) is pleased to provide this Water, Non-Potable and Sewer Rate Study Report (Report) for the City of San Juan Capistrano (City) to address current financial challenges the City is facing and to establish utility rates that are equitable and in compliance with Proposition 218.

The major objectives of the study include the following:

1. Develop financial plans for the Water, Non-Potable and Sewer Utilities to ensure financial sufficiency, meet operation and maintenance costs, ensure sufficient funding for capital repair and replacement needs, and improve the financial health of the Utilities;
2. Develop sound and sufficient reserve fund targets for Water, Non-Potable and Sewer Utilities;
3. Revise current rate structures for the Water, Non-Potable and Sewer Utilities to address the pricing objectives identified by the Utilities Commission and City's elected officials;
4. Develop cost-of-service analyses for the Water, Non-Potable and Sewer Utilities; and
5. Develop equitable and defensible water, non-potable and sewer rates that meet the Proposition 218 requirements.

The Report summarizes the key findings and results related to the development of the financial plans and associated rates for the Water, Non-Potable and Sewer Utilities.

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It has been a pleasure working with you, and we thank you and the City staff for the support provided during the course of this study.

Sincerely,

Raftelis Financial Consultants, Inc.

Sanjay Gaur
Senior Manager

Khanh Phan
Senior Consultant



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GLOSSARY

AF – Acre Feet
AG - Agricultural
AWWA – American Water Works Association
BMP – Best Management Practice
BOD – Biochemical-Oxygen Demand
CCF – Hundred Cubic Feet
CIMIS – California Irrigation Management Information System
CIP – Capital Improvement Plan
COP – Certificates of Participation
COS – Cost of Service
CPI – Consumer Price Index
CUWCC – California Urban Water Conservation Council
ENR CCI – Engineering News Record Construction Cost Index
ET – EvapoTranspiration
ETAF – EvapoTranspiration Adjustment Factor
FY – Fiscal Year
G&A – General and Administration
GPD – Gallons per Day
GPCD – Gallons per Capita per Day
GWRP – Groundwater Recovery Plant
I&I – Inflow and Infiltration
K_c – Crop Coefficient
MFR – Multi-Family Residential
MGD – Million Gallons per Day
MWD – Metropolitan Water District of Southern California
MWDOC – Municipal Water District of Orange County
O&M – Operations and Maintenance
OWB – Outdoor Water Budget
R&R – Repair and Replacement
RFC – Raftelis Financial Consultants
RW – Recycled Water
SFR – Single-Family Residential
SJBA – San Juan Basin Authority
SOCWA – South Orange County Wastewater Authority
SQ FT – Square Feet
TSS – Total Suspended Solids



NOTES

1. Due to rounding, some items may not foot properly.
2. Due to construction inflation, the values in CIP charts will not match the City-provided CIP schedules exactly.
3. The data in this study is based on information available to RFC as of February 10, 2014.
4. The City will seek five years of approved rates (through FY 2019) from City Council. Note that six years of rates are shown in the report to reflect the study period which goes through FY 2020.



1 Executive Summary

1.1 Background of the Study

In 2013, the City of San Juan Capistrano engaged Raftelis Financial Consultants (RFC) to conduct a Water, Non-Potable Water and Sewer Rate Study (Study) to develop and document water, non-potable and sewer rates that are equitable and defensible based on a sustainable financial plan and cost-of-service analysis. In addition, RFC developed reserve fund targets for the City's utilities. Below, are the objectives of the Study:

1. Develop financial plans for the Water, Non-Potable and Sewer Utilities to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital repair and replacement (R&R) needs, and improve the financial health of the Utilities;
2. Develop sound and sufficient reserve fund targets for Water, Non-Potable and Sewer Utilities;
3. Revise current rate structures for the Water, Non-Potable and Sewer Utilities to address the pricing objectives identified by the Utility Commission and City Council;
4. Develop cost-of-service analyses for the Water, Non-Potable and Sewer Utilities; and
5. Develop equitable and defensible water, non-potable and sewer rates that meet the Proposition 218 requirements.

This executive summary provides an overview of the study and includes findings and recommendations for the financial plan, rates, and reserves for the Water, Non-Potable Water and Sewer Utilities.

1.2 Reserve Policies

Reserve policies provide the City a basis for coping with fiscal emergencies such as revenue shortfalls, asset failure, natural disaster, etc. They also provide guidelines for sound financial management with an overall long-range perspective to maintain financial solvency and to mitigate financial risks associated with revenue instability, volatile capital costs, and emergencies.

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RFC recommends that the City maintain four types of reserves for its Water, Non-Potable and Sewer utilities:

- 1) Operations & Maintenance (O&M) Reserve – to provide working capital to support the operation, maintenance, and administration of the utility;
- 2) Rate Stabilization Reserve – to smooth rate adjustments and mitigate impacts to ratepayers;
- 3) Repair and Replacement (R&R) Capital Reserve – used to fund future obligations that are necessary for maintaining reliable infrastructure; and
- 4) Emergency Reserve – to allow the utility to provide uninterrupted service in the event of a physical emergency.

Below, in Table 1-1, are the recommended reserve policies for the City's utilities.

Table 1-1: Proposed Reserve Policies for Water, Sewer and Non-Potable Utilities Funds

Reserve Fund	Water	Sewer	Non-potable
Operations & Maintenance (25% operating budget)	\$3.5M	\$801K	\$113K
Rate Stabilization	\$3.1M	N/A	\$100K
Total Operational Reserves	\$6.6M	\$801K	\$213K
% of Operational Expenses	47%	25%	47%
Repair & Replacement Capital (Annual depreciation)	\$3.2M	\$400K	\$380K
Emergency	\$1.7M	\$1.5M	\$200K
Total	\$11.5M	\$2.7M	\$793K

In order to maintain a stable revenue structure and provide reliable services to the community, the City maintains reserve fund balances for contingencies. Resolution No. 11-06-30-04 provides the following guidelines:

1. Water and Sewer Enterprise Funds – approximately 25 to 100 percent of current operating expenditures;
2. Water and Sewer Replacement Funds – approximately one year's average capital costs.

The recommended operational reserve (O&M and rate stabilization) policies in Table 1-1 are well within the guidelines provided in the Resolution. R&R capital reserves are recommended to maintain level equal to annual depreciation, i.e. one year average capital costs as stated in the Resolution No. 11-06-30-04.



1.3 Sewer Utility – Financial Plan and Rates

1.3.1 Sewer Revenue Adjustments and Financial Plan

Sewer Utility Funds are currently in a healthy position with positive net income and healthy reserves; thus revenue adjustments are not necessary for several years. However, due to increasing operations and maintenance (O&M) costs and capital expenditures, net operating income is projected to be reduced and to become negative starting Fiscal Year (FY) 2018, and total reserves are drawn down beginning in FY 2017. To ensure that the sewer utility will have adequate revenues to fund operating expenses and capital expenditures and to maintain recommended reserve levels, the sewer revenue adjustments of 5 percent for FY 2019 and FY 2020 (Table 1-2) are proposed.

With these adjustments, it is estimated that revenues will meet operating costs by FY 2020 (Figure 1-1). Reserve balances are estimated to meet or exceed target reserve levels through FY 2020 as well (Figure 1-2).

Table 1-2: Proposed Sewer Revenue Adjustments¹

Fiscal Year	Effective Date	Proposed Sewer Revenue Adjustments
2015	July 1, 2014	0 percent
2016	July 1, 2015	0 percent
2017	July 1, 2016	0 percent
2018	July 1, 2017	0 percent
2019	July 1, 2018	5 percent
2020	July 1, 2019	5 percent

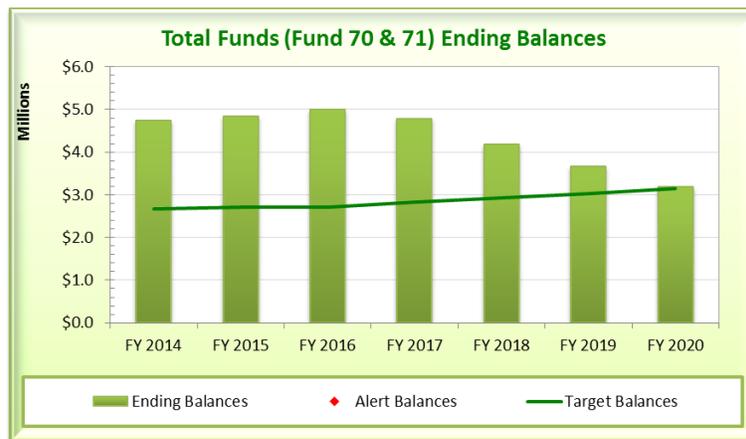
¹ Six years of revenue adjustments are shown to reflect the study period which goes through FY 2020. The City will seek five years of adjustments (through FY 2019) from City Council.



Figure 1-1: Sewer Operating Financial Plan



Figure 1-2: Projected Ending Balances for Sewer Utility Funds (Funds 70 & 71)



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1.3.2 Sewer Rates

Table 1-3 shows the proposed sewer rates for FY 2015. Table 1-4 shows the proposed six-year sewer rates. Please refer to Section 5.3 for a detailed discussion of the cost of service analysis on which the proposed rates are based. Please refer to Appendix 10 for customer classifications and rate code descriptions.

Table 1-3: FY 2015 Proposed Sewer Rates

	Projected	Current	\$ Change	Difference
Residential				
Single-Family Residential	\$24.34 / month	\$27.64	-\$3.30	-12%
Multi-Family Residential	\$18.88 / month	\$17.15	\$1.73	10%
Mobile Homes	\$13.42 / month	\$14.74	-\$1.32	-9%
Non-Residential				
Commercial Fixed	\$10.82 / month	\$7.88	\$2.94	37%
Commercial Flow	\$2.40 / ccf	\$1.17 – \$1.64		
Pool-Small (Fixed)	\$41.61 / month	\$21.30	\$20.31	95%
Pool-Large (Fixed)	\$103.25 / month	\$49.14	\$54.11	110%

Table 1-4: Proposed Sewer Rates²

	Effective	FY 2015 7/1/14	FY 2016 7/1/15	FY 2017 7/1/16	FY 2018 7/1/17	FY 2019 7/1/18	FY 2020 7/1/19
Revenue Adjustments		0%	0%	0%	0%	5%	5%
Residential							
Single-Family Residential	\$/month	\$24.34	\$24.34	\$24.34	\$24.34	\$25.56	\$26.84
Multi-Family Residential	\$/month	\$18.88	\$18.88	\$18.88	\$18.88	\$19.83	\$20.83
Mobile Homes	\$/month	\$13.42	\$13.42	\$13.42	\$13.42	\$14.10	\$14.81
Non-Residential							
Commercial Fixed	\$/month	\$10.82	\$10.82	\$10.82	\$10.82	\$11.37	\$11.94
Commercial Flow*	\$/ccf	\$2.40	\$2.40	\$2.40	\$2.40	\$2.52	\$2.65
Pool-Small	\$/month	\$41.61	\$41.61	\$41.61	\$41.61	\$43.70	\$45.89
Pool-Large	\$/month	\$103.25	\$103.25	\$103.25	\$103.25	\$108.42	\$113.85
*Based on prior-year Winter Usage (bills issued for meter reads in Jan – March of prior year)							

² Six years of rates are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved rates (through FY 2019) from City Council.



1.4 Water Utility – Financial Plan and Rates

1.4.1 Water Revenue Adjustments and Financial Plan

The water operations fund balance is currently negative, and without any revenue adjustments, the fund is forecasted to operate at a deficit each year, with the utility unable to meet debt coverage requirements by FY 2019. Based on input from the March 6, 2014, City Council meeting and follow up direction received from the March 18, 2014, City Council meeting, RFC moved forward with forecasting revenue adjustments of 5 percent for FY 2015 through FY 2020, as shown in Table 1-5. With the forecasted financial plan using these adjustments (Figure 1-3), it is estimated that the water fund would meet 50 percent of its reserve target by FY 2020 (Figure 1-4) and is projected to meet the full reserve target by FY 2025, assuming no substantive changes to the financial plan.

Table 1-5: Forecasted Water Revenue Adjustments³

Fiscal Year	Effective Date	Forecasted Water Revenue Adjustments
2015	July 1, 2014	5 percent
2016	July 1, 2015	5 percent
2017	July 1, 2016	5 percent
2018	July 1, 2017	5 percent
2019	July 1, 2018	5 percent
2020	July 1, 2019	5 percent

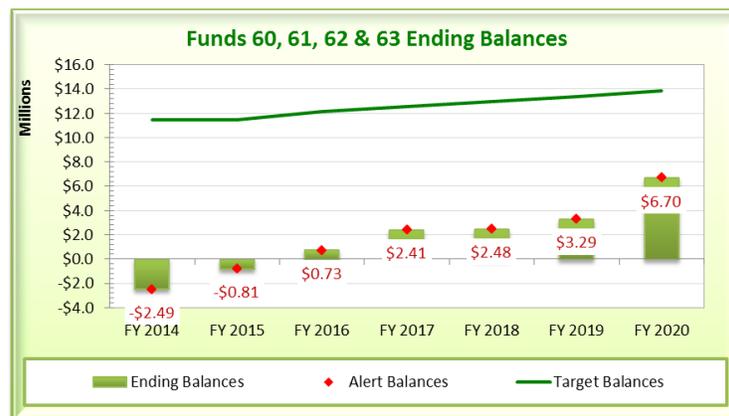
³ Six years of revenue adjustments are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved adjustments (through FY 2019) from City Council.



Figure 1-3: Water Operating Financial Plan⁴



Figure 1-4: Forecasted Water Funds Ending Balances (Funds 60, 61, 62 and 63)⁵



1.4.2 Pricing Objectives and Evaluated Water Rate Design

In order to determine which water rate structure to evaluate, RFC collaborated with City staff and identified a list of 18 pricing objectives according to level of priority and relevance based on the City’s unique characteristics and needs. RFC and City staff requested that the Utilities Commission and City Council rank these pricing objectives based on policy priorities for the purpose of driving the rate design process. Based on these rankings, RFC evaluated the following four rate structures – 1) Revised Water

⁴ Starting FY 2015, recycled water and non-potable revenues and expenses are separated from Water Utility Fund 60, creating a new non-potable operations fund and combining this new fund with the existing capital fund (65) for RW. Please refer to Section 3.3 for Fund Restructuring details.

⁵ Alert balance is shown when the projected ending balance is lower than the target balance for the fiscal year.

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Budget with 25 percent fixed costs on fixed charges (Revised Water Budget), 2) Water Budget with 100 percent fixed costs on fixed charges (Water Budget with 100 percent Fixed), 3) Uniform with 25 percent fixed costs on fixed charges (Uniform), and 4) Uniform with 100 percent fixed costs on fixed charges (Uniform with 100% Fixed) – and presented these rate structures to City Council on March 6, 2014. The selected rate structure “Revised Water Budget” in this Report is based on the Council’s direction that was provided on March 18, 2014. The other three evaluated rate structures are included in Appendix 2.

Based on the responses from the Utilities Commission and City Council members, RFC calculated the average score for each pricing objective. RFC then assessed the ability of each rate structure in meeting each of the most important pricing objectives identified by elected officials. The total score of each rate structure (sum of the product of average score of each pricing objective and score of each rate structure in meeting the corresponding pricing objective) are summarized in Table 1-6, for the top eight objectives

where the 17.95 score⁶ for **Revised Water Budget** represents the highest-ranked rate structure.

Table 1-6: Pricing Objectives Results and Evaluated Water Rate Design Options

Pricing Objectives	Average Score	Revised Water Budget	Water Budget with 100% Fixed	Uniform	Uniform with 100% Fixed
Revenue Stability	1.29	3	1	2	1
Perceived to be Fair to the Public	1.29	1	2	3	4
Affordability for Essential Use	1.57	1	3	2	4
Rate Stability	1.71	2	1	2	1
Equitable in Allocating Water Resource Cost	1.80	1	1	4	4
Customer Understanding	1.86	1	3	1	2
Promotes Conservation	2.00	1	4	3	4
Promotes Efficiency	2.14	1	2	3	4
Total		17.95	29.95	34.49	41.92

1.4.3 Water Rates

The City’s current water budget-based four-tiered rate structure consists of an indoor and outdoor allocation for all customer classes, except for landscape, commercial classes and City Farm. The current structure includes the following elements: landscape does not have an indoor allocation, and commercial is based on a four-tiered inclining rate structure. City Farm is a uniform rate for all usage at

⁶ The ranking values range from 1 to 4, with 1 representing the highest ranking.



current Tier I rate. The outdoor allocation changes monthly based on weather conditions, and it is based on irrigable area.

Upon reviewing the current rate structure, conducting a usage analysis, conducting a pricing objectives exercise and receiving comments from the Utilities Commission and City Council, RFC recommended the following changes for outdoor water budget factors:

- The current standard landscape area of 3,636 square feet (sq. ft.) is more than 50 percent of a lot size of 7,000 sq. ft. Empirical analyses conducted by other agencies have concluded that irrigable landscape area is approximately 30 to 35 percent of lot size only. An analysis⁷ of actual irrigated area for single family lots 7,000 sq. ft. and smaller has determined that the irrigated area is smaller than what was previously assumed before computer analysis was available, and the standard landscape area for regular lots (rate code WCA) will be reduced from 3,636 sq. ft. to 2,700 sq. ft. for the purpose of calculating monthly allocations. This 936 sq. ft. difference will result in a slightly smaller outdoor allocation in the warmest months, ranging from no difference in the winter up to an estimated 4 CCF⁸ in the hottest summer months, depending on the actual weather.
- Large lots (rate code WCB) – those over 7,000 sq. ft. with irrigated area defined as lot size minus 2 times the building area – will receive the same outdoor allocation as described above for the first 2,700 sq. ft., with the allocation calculation currently in place remaining unchanged for the balance of the acreage (see Section 6.5).
- Multi-family accounts with irrigation (rate code WCD) will have 500 sq. ft. of irrigated area per dwelling unit assigned to each account, which more accurately reflects the actual site characteristics.
- Multi-family accounts without irrigation (rate codes WCE and WCN) will have 100 sq. ft. of irrigated area per dwelling unit assigned to each account to meet watering need for potential balcony plantings.

Other recommendations:

- Commercial accounts will have a water budget allocation based on the previous winter's use (bills with meter reads from January to March) to establish a new efficiency benchmark for this customer classification.
- The City has two sources of water – local water treated at the Groundwater Recovery Plant (GWRP) and more expensive treated water imported from Municipal Water District of Orange County (MWDOC). As directed by the City's attorney and City staff, all customer classes except firelines and construction are allocated 220 gallons per day (an average of 9 ccf per 30 days

⁷ Analysis was conducted by the City's GIS and water conservation staff.

⁸ 1 ccf = 100 cubic feet = 748 gallons

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billing month) of lowest cost water from the GWRP for essential use. The first tier will also include revenue offsets from property tax revenues. Based on guidelines provided in the Senate Bill x7-7 for efficient indoor use of 55 gallons per capita per day, 220 gallons per day is sufficient indoor water use for a family of four.

Table 1-7 summarizes the revised outdoor water budget factors discussed above, and Table 1-8 summarizes the revised tier definitions. Please refer to Section 6.5 for detailed descriptions of outdoor water budget factors.

Table 1-7: Revised Outdoor Water Budget Factors

	SFR	MFR	Irrigation
Rate codes	WCA, WCB	WCC, WCD, WCE & WCN	WCF, WCG & WCM
Outdoor Water Budget Factors			
Landscape Area	WCA: 2,700 sq ft WCB: Lot size – 2*building size	WCC: as measured WCD: 500 sq ft / unit WCE: 100 sq ft /unit WCN: 100 sq ft / unit	As measured
EvapoTranspiration Adjustment Factors (ETAF)	0 – 2,700 sq ft: 70% 2,701 – 21,780: 50% Above 21,780 sq ft: 30%	70%	70%

Table 1-8: Revision of Tier Definitions

Tiers	Current Definitions	Proposed Tiers	Proposed Definitions	
Base Rate	Essential Use Portion of Indoor Use	Tier 1 – Essential Use	9 ccf (1 ccf = 748 gallons)	
Tier I	Within 100% Allocation Remaining Indoor + Outdoor Use	Tier 2 – Efficient Use	Non-Commercial: Outdoor Use Commercial: Winter Average Use	
Tier II	Up to 200% of Allocation	Tier 3 – Inefficient Use	Tier 1 + Tier 2	
Tier III	Above 200% of Allocation	Tier 4 – Excessive Use	Above Tier 3	
Proposed Tiers	SFR	MFR	Irrigation	Commercial
Tier 1 – Essential Use	9 ccf / month	9 ccf / month	9 ccf / month	9 ccf / month
Tier 2 – Efficient Use	Outdoor use	Outdoor use	Outdoor use	Winter average
Tier 3 – Inefficient Use	100% of Tiers 1 & 2	100% of Tiers 1 & 2	100% of Tiers 1 & 2	100% of Tiers 1 & 2
Tier 4 – Excessive Use	Above Tier 3	Above Tier 3	Above Tier 3	Above Tier 3

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As previously mentioned, based on direction from City Council during the March 18, 2014, workshop, the **Revised Water Budget** was selected. Based on the forecasted financial plan and cost of service analysis, the corresponding proposed rates are shown in Table 1-9 and Table 1-10. The proposed monthly service charges (Table 1-9) and water volumetric (Table 1-10) rates were evaluated based on a cost of service analysis and American Water Works Association (AWWA) standards. The monthly service charges are built up from the costs related to customer service, meter service, and capacity, and cover 25 percent of the City’s fixed costs for water service. The volumetric rates are built up from the costs related to water supply and delivery, net of revenue offsets. Please see Section 6.5 for a detailed discussion of the cost of service analysis on which the proposed rates are based and Appendix 2 for the other rate structures.

Table 1-9: Proposed Monthly Service Charges

	Customer Service	Meter Service	Capacity	Proposed	Current
5/8"	\$4.64	\$14.29	\$3.12	\$22.05	\$19.66
1"	\$4.64	\$18.30	\$7.80	\$30.74	\$29.50
1 1/2"	\$4.64	\$23.44	\$15.60	\$43.68	\$44.24
2"	\$4.64	\$37.73	\$24.96	\$67.33	\$61.87
3"	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22
4"	\$4.64	\$181.92	\$98.28	\$284.84	\$164.19
6"	\$4.64	\$272.94	\$218.40	\$495.98	\$314.62
8"	\$4.64	\$467.90	\$374.40	\$846.94	\$496.50
Fireline 6"			\$65.19	\$65.19	\$88.49
Fireline 8"			\$138.92	\$138.92	\$88.49
Construction	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22

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Table 1-10: Proposed Water Volumetric Rates (\$/ccf)

Water Rates	Water Supply	Delivery	Revenue Offsets	Proposed	Current
Tier 1 - Essential Use	\$1.35	\$2.85	-\$0.79	\$3.41	\$3.18
Tier 2 - Efficient Use	\$1.90	\$2.85	\$0.00	\$4.75	\$4.24
Tier 3 - Inefficient Use	\$2.30	\$2.85	\$0.00	\$5.15	\$6.37
Tier 4 - Excessive Use	\$2.30	\$2.85	\$0.00	\$5.15	\$11.67

Tables 1-11 and 1-12 summarize the projected six-year monthly service charges and water volumetric rates.

Table 1-11: Proposed Monthly Service Charges⁹

Effective Date	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19
5/8"	\$22.05	\$23.16	\$24.32	\$25.54	\$26.82	\$28.17
1"	\$30.74	\$32.28	\$33.90	\$35.60	\$37.38	\$39.25
1 1/2"	\$43.68	\$45.87	\$48.17	\$50.58	\$53.11	\$55.77
2"	\$67.33	\$70.70	\$74.24	\$77.96	\$81.86	\$85.96
3"	\$202.14	\$212.25	\$222.87	\$234.02	\$245.73	\$258.02
4"	\$284.84	\$299.09	\$314.05	\$329.76	\$346.25	\$363.57
6"	\$495.98	\$520.78	\$546.82	\$574.17	\$602.88	\$633.03
8"	\$846.94	\$889.29	\$933.76	\$980.45	\$1,029.48	\$1,080.96
Fireline 6"	\$65.19	\$68.45	\$71.88	\$75.48	\$79.26	\$83.23
Fireline 8"	\$138.92	\$145.87	\$153.17	\$160.83	\$168.88	\$177.33
Construction	\$202.14	\$212.25	\$222.87	\$234.02	\$245.73	\$258.02

⁹ Six years of rates are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved rates (through FY 2019) from City Council.



Table 1-12: Proposed Water Volumetric Rates (\$/ccf)¹⁰

Effective Date	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19
Tier 1 – Essential Use	\$3.41	\$3.59	\$3.77	\$3.96	\$4.16	\$4.37
Tier 2 – Efficient Use	\$4.75	\$4.99	\$5.24	\$5.51	\$5.79	\$6.08
Tier 3 – Inefficient Use	\$5.15	\$5.41	\$5.69	\$5.98	\$6.28	\$6.60
Tier 4 – Excessive Use	\$5.15	\$5.41	\$5.69	\$5.98	\$6.28	\$6.60

1.5 Non-Potable Water Utility – Financial Plan and Rates

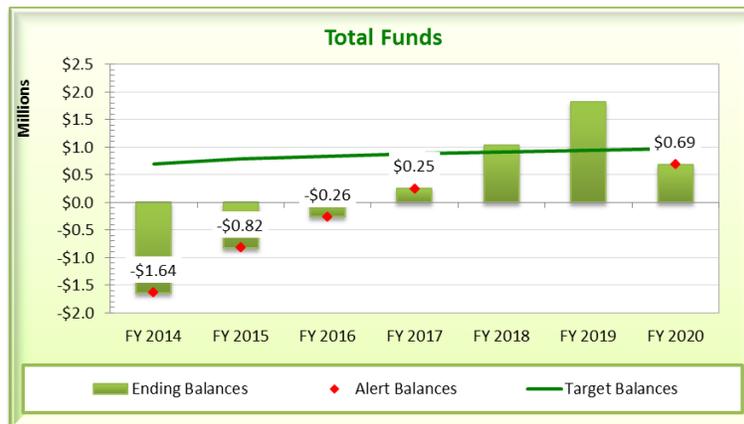
Currently, the non-potable and recycled water (RW) utilities are housed collectively under the Water Utility. RFC recommended that the revenues and expenses related to non-potable and RW activities be tracked through a separate fund (e.g. the “Non-Potable Fund”) beginning FY 2015. This includes separating the non-potable and recycled water elements of operations from Fund 60, creating a new RW/non-potable operations fund, and combining this new fund with the existing capital fund (65) for RW. Based on direction from City staff, RFC based its evaluation of the non-potable water utility on an assumption that the City will convert 345 AF of non-potable demand that is currently augmented by imported water from MWDOC in FY 2014, to RW upon separation of the funds starting FY 2015. Based on the fund being projected to reach its target balance by FY 2018 (Figure 1-5), no revenue adjustments are required for the Non-Potable Utility Fund. The proposed monthly service charges are the same as monthly service charges for potable water accounts (Table 1-13) and volumetric (Table 1-14) rates were evaluated based on a cost of service analysis and AWWA standards. Please see Section 3.3 for further detail on the separation of the utility funds and Section 7.2 for a detailed discussion of the cost of service analysis on which the proposed rates are based.

¹⁰ See Note 8.



1.5.1 Non-Potable Water Financial Plan

Figure 1-5: Non-Potable Water Operating and Capital Fund Balances



1.5.2 Non-Potable Water Rates

Currently, the RW service charge is flat at \$19.66 per month regardless of meter size, and non-potable meters are assessed at the same monthly service charges as potable meters. RFC recommends that the meter charges for all non-potable and recycled water meters be the same as those of potable water meters.¹¹

Table 1-13: Proposed Monthly Service Charges

	Customer Service	Meter Service	Capacity	Proposed FY 2015 7/1/14	Current
5/8"	\$4.64	\$14.29	\$3.12	\$22.05	\$19.66
1"	\$4.64	\$18.30	\$7.80	\$30.74	\$29.50
1 1/2"	\$4.64	\$23.44	\$15.60	\$43.68	\$44.24
2"	\$4.64	\$37.73	\$24.96	\$67.33	\$61.87
3"	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22
4"	\$4.64	\$181.92	\$98.28	\$284.84	\$164.19
6"	\$4.64	\$272.94	\$218.40	\$495.98	\$314.62
8"	\$4.64	\$467.90	\$374.40	\$846.94	\$496.50
Fireline 6"			\$65.19	\$65.19	\$88.49
Fireline 8"			\$138.92	\$138.92	\$88.49
Construction	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22

¹¹ As the non-potable meter charges are based on those for potable water which are proposed to increase, a minor increase in revenue is anticipated for the non-potable financial plan.



Non-potable water tier definitions are the same as potable water tiers, as shown in Table 1-8. The non-potable volumetric rates are built up based on the costs of water supply and delivery cost (to recover remaining revenue requirement). Please see Section 7.2 for further details.

Table 1-14: Proposed Non-Potable Water Volumetric Rates

Water Rates	Current	Water Supply	Delivery	Proposed (FY 2015 to FY 2020)
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.67	\$3.53 / ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.67	\$3.53 / ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.67	\$4.20 / ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.67	\$4.20 / ccf

1.6 Residential Bill Comparison

Figure 1-6 shows the water & sewer residential bill comparison conducted by RFC as of April 21, 2014. Rate surveys can provide insights into a utility’s pricing policies related to service. However, care should be taken in drawing conclusions from such comparisons as some factors including property tax, varying rate implementation dates, geographic location, demand, customer constituency, level of treatment, level of grant funding, age of system, sources of water costs, and rate-setting methodology can affect the cost of providing services and rates. The rate surveys incorporate the latest rates adopted by each agency; they vary from FY 2013 to FY 2015 (depending on the particular agency). For all surveys completed, billing on a monthly cycle was considered, and a regular residential customer with a 5/8” meter (or ¾” meter as the smallest meter size available) and an average monthly consumption of 20 hundred cubic feet (ccf) were assumed. It should be noted that Moulton Niguel Water District and Santa Margarita Water District receive significant amount of property tax, which keeps water rates lower by offsetting the cost of providing water service.

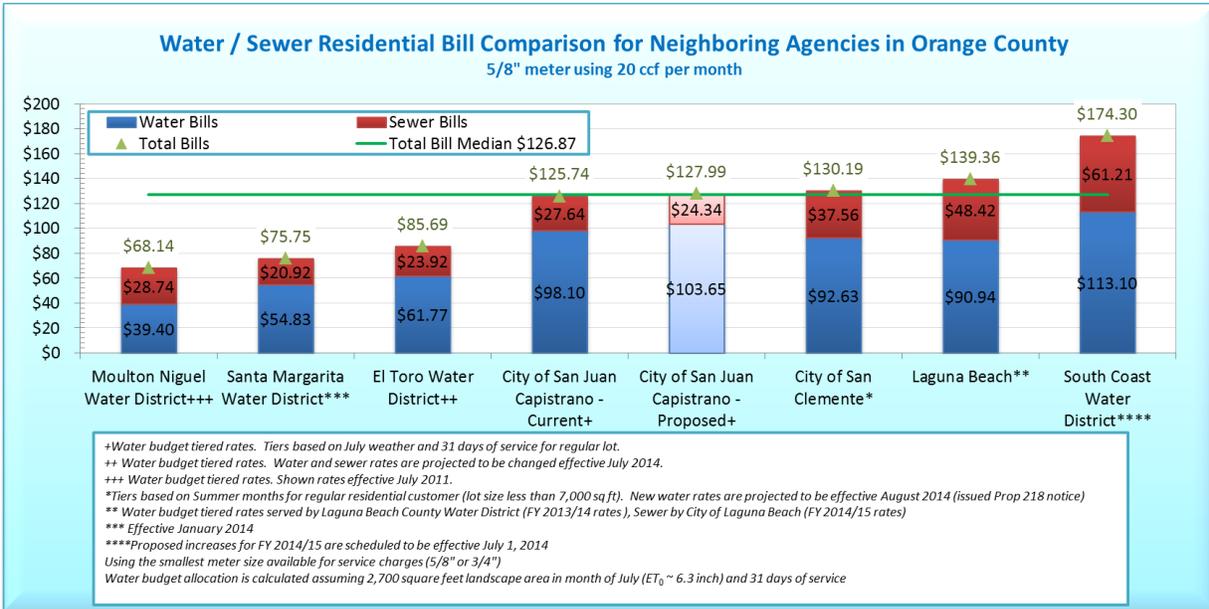
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Figure 1-6: Water / Sewer Residential Bill Comparison for Neighboring Agencies in Orange County





2 Background of the Study

2.1 Overview of the City's Water, Non-Potable Water and Sewer Utilities

The City of San Juan Capistrano (City) is located in southern Orange County, approximately 60 miles southwest of Los Angeles. The City encompasses approximately 14.4 square miles and is home to a population of roughly 36,500. The City owns and operates two self-supporting utilities: Sewer and Water.

The Sewer Utility serves its customers by providing sewer collection and treatment services. The City has a sewer collection system which is composed of pipeline, manholes, and other structures. The City is a member agency of the South Orange County Wastewater Authority (SOCWA), a regional sewer treatment facility located in Dana Point. The treatment facility serves ten member agencies by handling sanitary waste.

The Water Utility serves residential, commercial, landscape and agricultural customers by providing potable and non-potable water. To serve its potable water customers, the City obtains water from two sources: local water via the Groundwater Recovery Plant (GWRP) and imported water from the Metropolitan Water District of Southern California (MWD) via Municipal Water District of Orange County (MWDOC). The non-potable water service is supplied by local non-potable well water and recycled water imported from Santa Margarita Water District (SMWD) and Moulton Niguel Water District (MNWD). The water is transported through a complex system of storage facilities, booster pumping stations, and pipelines. Currently, the Water Utility is in the process of restoring its negative fund balances while funding its necessary operations and maintenance (O&M) expenses and necessary capital projects.

The City developed a water-budget tiered-rate structure back in 1991 as part of an effort to promote water efficiency and conservation in response to the severe drought at the time. Over the years, the City has enhanced its methodology in establishing more scientific water budget allocations for each customer class to better define water-use efficiency benchmarks. In November 2009, the City completed a Water and Wastewater Rate Study; however, the current water rate structure was recently challenged in Court on the grounds of non-compliance with Proposition 218. At the time this report is being prepared, this case is on appeal.

2.2 Objectives of the Study

To address the City's recent legal challenges along with the current financial issues, the City engaged Raftelis Financial Consultants, Inc. (RFC) to conduct the Comprehensive Water, Non-Potable Water and Sewer Utilities Rate Study (Study). The major objectives of the study include the following:

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1. Develop financial plans for the Water, Non-Potable and Sewer Utilities to ensure financial sufficiency, meet operation and maintenance (O&M) costs, ensure sufficient funding for capital repair and replacement (R&R) needs, and improve the financial health of the Utilities;
2. Develop sound and sufficient reserve fund targets;
3. Revise current rate structures for the Water, Non-Potable and Sewer Utilities to address the pricing objectives identified by the City's elected officials;
4. Develop cost-of-service analyses for the Water, Non-Potable and Sewer Utilities; and
5. Develop equitable and defensible water, non-potable water and sewer rates that meet the Proposition 218 requirements.

The Report summarizes the key findings and results related to the development of the financial plans for the Water, Non-Potable and Sewer Utilities and the development of the water, non-potable and sewer rates for the Water, Non-Potable and Sewer Utilities.



3 General Assumptions

The study period for the Study is from Fiscal Year (FY) 2014 to 2020. Various types of assumptions and inputs were incorporated into the Study, based on discussion with and/or direction from City staff. These include projected number of accounts and annual growth rates in consumption for different customer classes, inflation factors and other assumptions. These assumptions are presented in Table 3-1, below.

3.1 Inflation

Table 3-1: Inflation Factor Assumptions

KEY FACTORS	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
General (CPI)	3%	3%	3%	3%	3%	3%
Salary	2%	2%	2%	2%	2%	2%
Benefits	5%	5%	5%	5%	5%	5%
Utilities	5%	5%	5%	5%	5%	5%
ENR CCI	4%	4%	4%	4%	4%	4%

The general inflation rate of 3 percent is based on a historical Consumer Price Index (CPI) range of 3-3.5 percent. A salary inflation rate of 2 percent is based on a conservative interpretation of the 10-year average of the national average wage index of 3 percent and the 10-year average automatic cost of living adjustments (COLA) of 2.5 percent released by the Social Security Administration (SSA). A benefits inflation rate of 5 percent is based on health insurance costs; 62 percent increases occurred from 2003 to 2011 (approximately 7-8 percent per year) with expected increases at around 4–5 percent per year in incoming years.¹² A utilities inflation rate of 5 percent is based on the 10-year average increase of electricity retail prices (published by the US Energy Information Administration, EIA). A construction rate of 4 percent (applied to capital projects) is based on the estimated Engineering News Records Construction Cost Indices (ENR CCI) 10-year average 4 percent.

3.2 Demand and Growth

Since growth has been unpredictable and volatile in recent years, to be conservative, the Study assumed that no growth will occur for the study period FY 2014 to FY 2020. Table 3-2 shows an account summary over the study period, and Table 3-3 shows projected water sales over the study period. It should be noted that an estimated 345 AF of non-potable water demand that is currently augmented by imported water from Municipal Water District of Orange County, will be converted to recycled water for a total of

¹² Source: C. Schoen, J. Lippa, S. Collins and D. Radley. State Trends in Premiums and Deductibles, 2003–2011: Eroding Protection and Rising Costs Underscore Need for Action, The Commonwealth Fund, Dec 2012

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440 acre feet (AF) per year including 10 percent water loss starting FY 2015. The portion of non-potable water demand is assumed to be met through 380 AF from non-potable well production through the Study period and the remaining demand will be met through RW imported from Santa Margarita Water District (20 percent) and Moulton Niguel Water District (80 percent)¹³. Drought conditions could impact the level of water well supply available to meet this demand.

Table 3-2: Account Summary

Account Summary	FY 2014 to FY 2020
Potable Water	11,299
Non-Potable / Recycled Water	77
Sewer	11,662

Table 3-3: Estimated Water Sales

Water Sales (AF)	FY 2014 to FY 2020
Potable Water	6,652
Non-Potable / Recycled Water ¹⁴	742
Total	7,394

3.3 Restructure of Utility Funds

Currently, potable, non-potable and recycled water (RW) revenues and expenses are included in Water Utility Funds (Funds 60, 61, 62, 63, 64 and 65¹⁵). Due to recent legal challenges regarding the comingling of Recycled Water program costs with that of potable water cost of service, RFC recommends that the City group all revenues and expenses associated with non-potable and recycled water in independent Non-Potable Utility Funds in FY 2015 as shown in Figure 3-1. In the figure on the following page, Funds 60, 61, and 62 represent water operations for potable and non-potable. Fund 63 is the capital fund for water, Fund 64 is the developer impact fees (DIF) fund, and Fund 65 is the capital fund for RW and non-potable systems. The above recommendation to restructure funds would separate the non-potable and recycled water elements of operations from Fund 60, creating a new non-potable operations fund and combining this new fund with the existing capital fund (Fund 65) for non-potable capital R&R.

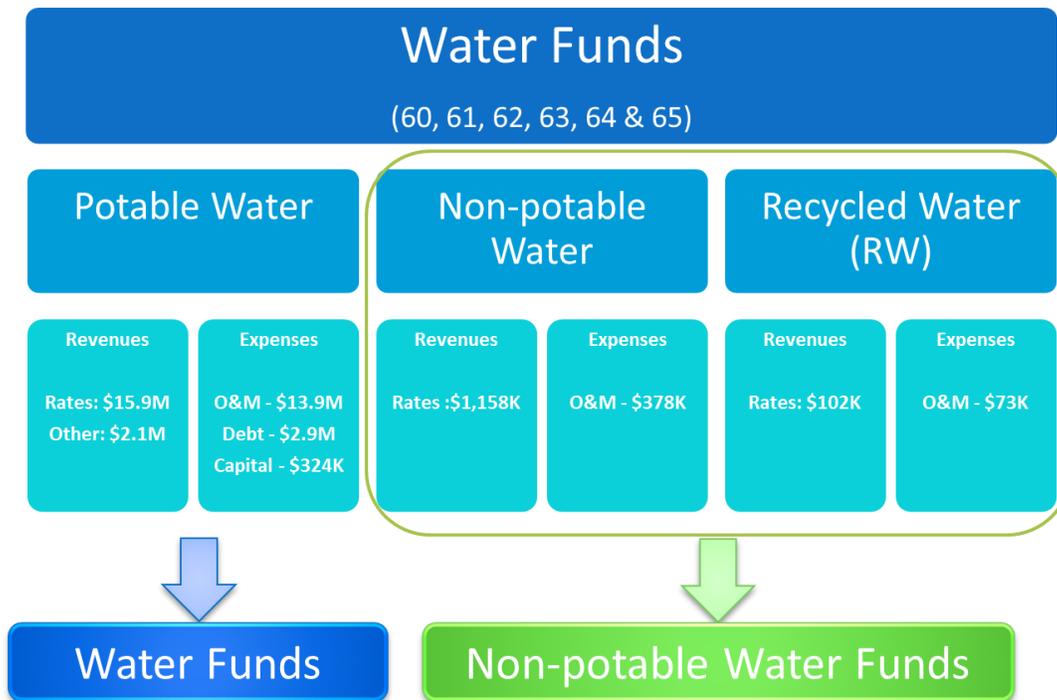
¹³ Based on discussion with City staff on February 10, 2014

¹⁴ It is assumed that starting FY 2015, all 816 AF non-potable water demand (742 AF sales with 10% water loss) are met through non-potable well production (380AF) and imported recycled water sales from MNWD and SMWD.

¹⁵ Refer to Appendix 7 for Enterprise Fund Descriptions.



Figure 3-1: Structure of Water Utility Funds (FY 2015 Forecast Budget)



3.4 Revised Allocations of General & Administrative and Customer Service Costs

Currently, all administrative and customer service costs are budgeted as part of the Water Fund (Fund 60), and the Sewer Fund pays 5 percent of its sewer revenues (about \$177K in FY 2014) to Water Fund for general and administrative costs (G&A) and customer service costs. To enhance the equity and fairness of allocating G&A and customer service costs, RFC recommends the following changes:

1. Customer service costs are allocated to three utilities (Water, Sewer and Non-Potable Water) based on number of service accounts, shared revenues and costs incurred.
2. Administrative service costs are allocated based on total O&M expenses excluding third-party costs (South Orange County Wastewater Authority (SOCWA) and Municipal Water District of Orange County (MWDOC)).

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Table 3-4 summarizes the revised allocations projected for the FY 2015 forecasted budget.

Table 3-4: Administrative & Customer Service Cost Allocations for FY 2015 Forecast Budget

FY 2015 (estimated)	Water	Sewer	Non-potable	Total
Customer Service Costs <i>(staff time; meter reading; billing; postage; credit card charges; and related costs)</i>	\$474,461	\$222,564	\$10,587	\$707,612
Less Fund 60 Misc. Revenues ¹⁶	(\$139,998)	(\$51,745)	(\$467)	(\$192,210)
Administrative Service Costs <i>(insurance and legal services)</i>	\$424,694	\$48,856	\$6,094	\$479,644
Total Admin & Customer Service Costs	\$759,157	\$219,675	\$16,214	\$995,046
Current Allocation	\$818,096	\$176,950	\$0	\$995,046
Δ	(\$58,939)	\$42,725	\$16,214	\$0

3.5 Key Financial Information

The Study utilized the following key financial documents and figures:

1. FY 2014 Amended Budget as of December 31, 2013, and FY 2015 expenses forecast by City staff¹⁷.
2. FY 2013 – FY 2020 Seven-Year Capital Improvement Program¹⁸
3. Water supply cost projections from Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC) as of April 17, 2013
4. Beginning fund balances as of July 1, 2013
 - Sewer Operations (Fund 70) and Capital R&R (Fund 71) = \$5,286,674
 - Water Operations (Funds 60-62) and Capital R&R (Fund 63) = (\$3,352,577)
 - Non-Potable Water Operations (Fund 60) and Capital R&R (Fund 65) = (1,667,146)
5. Billing data extracts for all water, non-potable water and sewer accounts in FY 2013 (July 2012 to June 2013)

¹⁶ Miscellaneous revenues for Fund 60 include other operating revenues such as inspection, plan check, turn off/on charge, late payment charges and other miscellaneous revenues.

¹⁷ RFC worked closely with City staff to identify non-recurring costs and other anticipated expenses for the Study period.

¹⁸ The CIP plan was updated to reflect actual results and project carryovers from FY 2013 and to exclude water and sewer capital improvement projects funded from developer impact fees (Funds 64 and 72). CIP Funds 64 and 72 are not included in the rate portion of the study.



4 Reserve Policies

A reserve policy is a written document that provides a basis for the City to cope with fiscal emergencies such as revenue shortfalls, asset failure, natural disaster, etc. It also provides guidelines for sound financial management with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs and emergencies. Additionally, adopting and adhering to a sustainable reserve policy enhances financial management transparency and helps achieve or maintain a certain credit rating for future debt issues.

The appropriate amount of reserve and reserve types are determined by a variety of factors such as the size of the operating budget, the amount of debt, the type of rate structure, frequency of customer billing, and risk of natural disaster. With this being said, most reserves tend to fall into the following categories: operations & maintenance (O&M) cash flow, rate stabilization, capital repair and replacement (R&R), and emergency. RFC recommends that the City maintain these four types of reserves for its water utility.

O&M Cash Flow – The purpose of an O&M reserve is to provide working capital to support the operation, maintenance and administration of the utility. From a risk management perspective, the O&M reserve supports the City’s cash flow needs during normal operations and ensures that operations can continue should there be significant events that impact cash flow. As it is unlikely for a utility to predict perfectly the revenues and revenue requirements for each billing period, a reserve set aside to hedge the risk of monthly negative cash positions is prudent in financial planning. Another factor to take into consideration when creating a cash flow reserve is the frequency of billing. A utility that bills once a month would require less minimum reserves than a utility that bills semi-annually. The City of San Juan Capistrano bills monthly; therefore, a reserve with a minimum target of 90 days of daily operating expenses is considered sufficient.

Rate Stabilization – While it is not typical for utilities to have substantial rate increases in a short period of time, factors such as declining water sales and rapidly increasing water supply costs may result in large rate increases. In order to minimize rate shocks, a rate stabilization reserve could be set up in order to smooth rate increases through gradual increases in rates as opposed to abrupt and large rate increases. A rate stabilization reserve acts as a buffer to protect customers from experiencing large shifts in their bills.

Emergency – The purpose of an emergency fund is to allow the utility to provide uninterrupted service in the event of a fiscal emergency, natural disaster or facility failure. An emergency reserve decreases risk by recognizing the high capital cost of the utilities and setting aside adequate funds to restart the system after an event or replace an essential facility. Critical asset analysis completed by staff provides the basis for the target level of emergency reserve.



Capital R&R – Capital R&R reserves are used to fund future obligations that are necessary for maintaining a reliable infrastructure. Because water and wastewater utilities are highly capital-intensive enterprises, it is important to accurately estimate long-term R&R costs and develop a reserve to fund the eventual replacement of the system. The City’s utilities have two options in funding R&R projects: the issuance of debt or pay-as-you-go (PAYGO).

4.1 Proposed Reserve Policies for the Sewer Utility

4.1.1 Sewer Operations Fund (Fund 70)

Since the City bills its customers on a monthly basis, RFC recommends that the target level for the Sewer Operations Fund equal 90 days of daily operating expenses (\$801K based on forecast FY 2015 expenses). Given that the majority of the revenue is fixed and cost increases from SOCWA have not been volatile, no rate stabilization fund is needed for the Sewer Utility.

4.1.2 Sewer Capital R&R Fund (Fund 71)

City staff estimates that the emergency target level should be equal to \$1.5 million for pipeline repair in the event of emergency. In addition to an emergency fund, RFC recommends that the target level for the capital fund be set at the annual depreciation value of the Sewer Utility. The total recommended forecast reserve level for Sewer Utility is \$2.7M for FY 2015.

4.2 Proposed Reserve Policies for the Water Utility

4.2.1 Water Operations Funds (Fund 60, 61 and 62)

Currently (as of July 1, 2013), the City’s Water Operations Funds (Fund 60, 61 and 62) are in a deficit of more than \$3.8 million. Restoring the operations funds to healthy levels is essential for the Water Utility’s financial health. RFC recommends that the target level for Water operation funds (Fund 60, 61 and 62) include two components: O&M and rate stabilization.

1. **O&M:** Maintaining an O&M reserve represents prudent financial management practice. RFC recommends that the City maintain 90 days cash (25 percent of annual operating budget) for the Water Fund to ensure adequate working capital to support the operation, maintenance and administration of the utility. The total recommended O&M reserve is \$3.5M based on the FY 2015 forecasted budget.



2. **Rate Stabilization:** This reserve is used to smooth rate increases caused by decreasing sales or unexpected increases in operation cost. RFC conducted historical demand and water supply cost volatility analyses for the City's water system to identify the appropriate target level for rate stabilization purpose. Based on the analyses, RFC recommends that the City maintain \$3.1 million for rate stabilization to weather the City's Water Utility through water sales reduction of approximately \$1.1 million (approximately 8 percent of current commodity revenues) and \$2 million for unexpected increases in imported water supply costs for FY 2015.

4.2.2 Water Capital R&R Fund (Fund 63)

Based on the Water Utility's Seven-Year CIP, the annual capital projects for the Water Utility range from \$300K to \$3.5M. However, the current capital fund balance (as of July 1, 2013 – the beginning of FY 2014) is less than \$500K, which is far below its annual depreciation of \$3.2M¹⁹ and represents insufficient working capital for annual R&R projects. In case of emergency, the Water Utility will not have adequate funds to repair and restore water services. RFC recommends a target level for the Capital R&R Fund that includes two components: emergency and annual R&R.

1. **Emergency:** City staff performed a critical-asset analysis and determined that \$1.7 million would be needed to repair the Motor Control Center for the Groundwater Recovery Plant (GWRP) and to purchase extra interim imported water from MWDOC. RFC recommends that \$1.7 million target level be set for emergency use.
2. **Annual Capital R&R:** RFC recommends that the target level equal the minimum annual depreciation value in addition to the emergency fund in order to ensure adequate working capital and to fund eventual replacement of the water system. The recommended annual R&R reserve is \$3.2M for FY 2015.

4.3 Proposed Reserve Policies for the Non-Potable Utility

4.3.1 Non-Potable Operations Fund (Fund 60)

Similar to the recommendation for the Water Utility, RFC recommends that the target level for the Non-Potable Operations Fund equal 90 days of daily operating expenses plus \$100K of rate stabilization for decreased sales.

¹⁹ Based on FY 2013 Depreciation Amortization from 2013 Comprehensive Annual Financial Report (CAFR) and excluding Depreciation for Non-potable system



4.3.2 Non-Potable Capital R&R Fund (Fund 65)

City staff estimates that the emergency target level should equal \$200K for recycled water pipeline repair in the event of emergency. Similar to the recommendations for the Water and Sewer Utilities, RFC recommends the target level for the capital fund to be set at the annual depreciation value of the Non-Potable Utility in addition to the emergency fund.

Table 4-1 summarizes the recommended target levels for FY 2015 forecast budget for each Utility based on the discussions in Sections 4.1 to 4.3.

Table 4-1: Summary for Recommended Reserve Levels for FY 2015 Forecast Budget

Reserve Fund	Water	Sewer	Non-Potable
Operations & Maintenance (25% operating budget)	\$3.5M	\$801K	\$113K
Rate Stabilization	\$3.1M	N/A	\$100K
Total Operational Reserves	\$6.6M	\$801K	\$213K
% of Operational Expenses	47%	25%	47%
Repair & Replacement Capital (Annual depreciation)	\$3.2M	\$400K	\$380K
Emergency	\$1.7M	\$1,500K	\$200K
Total	\$11.5M	\$2,701K	\$793K

In order to maintain a stable revenue structure and provide reliable services to the community, the City reserves fund balance for contingencies. Resolution No. 11-06-30-04 provides the following guidelines:

1. Water and Sewer Enterprise Funds – approximately 25 to 100 percent of current operating expenditures;
2. Water and Sewer Replacement Funds – approximately one year’s average capital costs.

The recommended operational reserve (O&M and rate stabilization) policies in Table 4-1 are well within the guidelines provided in the Resolution. R&R capital reserves are recommended to maintain level equal to annual depreciation, i.e. one year average capital costs as stated in the Resolution No. 11-06-30-04.



5 Sewer Utility – Financial Plan and Rates

5.1 Sewer Revenue Requirements

A review of a utility’s revenue requirements is a key first step in the rate study process. The review involves an analysis of annual operating revenues under the status quo, operation and maintenance (O&M) expenses, capital expenditures, transfers between funds, and reserve requirements. This section of the report provides a discussion of the projected revenues, O&M and capital expenditures, capital improvement financing plan, debt service requirements, and revenue adjustments estimated as required to ensure the fiscal sustainability and solvency of the Sewer Utility.

5.1.1 Revenues from Current Sewer Rates

Currently, residential customers are charged a flat monthly service fee. Commercial customers pay a flat monthly service fee plus an additional rate per hundred cubic feet (ccf) of metered water flow per month. Table 5-1 displays the City’s current sewer rates.

Table 5-1: Current Sewer Rates (effective July 1, 2013)

Customer Class	Rate Code	FY 2014
Single Family Home	SCC	\$27.64 per unit per month
Multi-Family Home	SCD	\$17.15 per unit per month
Mobile Home	SCQ	\$14.74 per unit per month
Pool – Small	SCF	\$21.30 per month
Pool – Large	SCG	\$49.14 per month
Commercial Fixed Charges	SCE	\$7.88 per month
Commercial Commodity Charges²⁰		
Tier 1 (0-30 ccf)		\$1.17 per ccf
Tier 2 (31-100 ccf)		\$1.39 per ccf
Tier 3 (101+ccf)		\$1.64 per ccf

Table 5-2 provides a summary of current accounts for the sewer utility as of June 30, 2013. Note that projections hold constant for the study period based on the assumption of no account growth. Table 5-3 provides a summary of commercial flows for the sewer utility. Table 5-4 provides a summary of projected service and flow-based revenues for the sewer utility. Note that projections hold constant for the study period based on the assumption of no growth in flows.

²⁰ Based on total water consumption

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Table 5-2: Accounts Summary as of June 30, 2013

	No. of Accts
Residential	
SFR	5,788
MFR	4,272
Mobile Homes	1,214
Non-Residential	
Commercial	345
Pool-Small	17
Pool-Large	26
Total	11,662

Table 5-3: Projected Commercial Billed Sewer Flows²¹

Commercial	Billed Flows (ccf)
Tier 1 (0-30 ccf)	79,070
Tier 2 (31-100 ccf)	76,073
Tier 3 (101+ccf)	87,884
Total	243,027

Table 5-4: Projected Sewer Revenues from Current Rates for FY 2014

	Annual Revenues
Sewer Service Revenues	
Single family home	\$1,919,819
Multi-family home	\$879,123
Commercial	\$32,592
Pool-small	\$4,430
Pool-large	\$15,528
Mobile homes	\$214,732
TOTAL SEWER SERVICE REVENUES:	\$3,066,225
Commercial Flow Revenues	
Tier 1 (0-30ccf)	\$92,512
Tier 2 (31-100ccf)	\$105,741
Tier 3 (101+ccf)	\$144,130
TOTAL COMMERCIAL FLOW REVENUE:	\$342,383
TOTAL SEWER REVENUES:	\$3,408,608

²¹Based on total monthly water consumption



5.1.2 Sewer O&M Expenses

Operations & maintenance (O&M) expenses include the costs of operating and maintaining the sewer utility’s collection, treatment, and disposal facilities, as well as the costs of providing technical services such as laboratory services and other administrative costs of the sewer system, such as customer service and billing. The City’s FY 2014 budget values and the assumed inflation factors for the study period were used as the basis for projecting O&M costs²². Table 5-5 summarizes budgeted and projected O&M expenses for the Sewer Fund. The sewer O&M expenses are projected to increase, on average, at approximately 3 percent per year. The variation in year-on-year percentage change is due to various inflation factors (listed in Section 3.1, Table 3.1) that figure into the O&M projections. See Appendix 5 for detailed sewer O&M expenses.

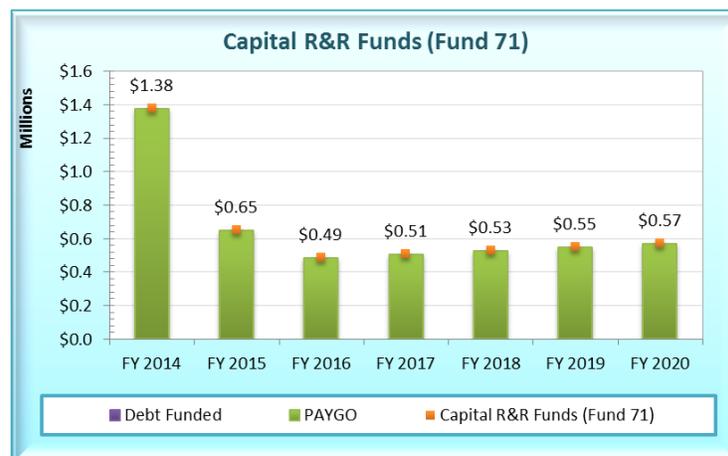
Table 5-5: Projected Sewer Operations & Maintenance Expenses

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Fund 70	\$3,090,478	\$3,205,056	\$3,278,017	\$3,405,171	\$3,524,758	\$3,585,995	\$3,696,939
% Change		3.7%	2.3%	3.9%	3.5%	1.7%	3.1%

5.1.3 Sewer Capital R&R Expenditures

The City has adopted a seven-year CIP through FY 2020 to address future utility needs. The CIP and R&R in Figure 5-1 are expected to be funded on a pay-as-you-go (PAYGO) basis, and represent the costs of CIP adjusted for construction inflation.²³

Figure 5-1: Projected Sewer Capital Repair & Replacement Capital Improvement Plan



²² RFC worked closely with City staff to identify non-recurring costs and other anticipated expenses.

²³ Based on construction inflation, the figures in Figure 5-1 will not match the City-provided CIP exactly.

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5.1.4 Status Quo Sewer Financial Plan

Table 5-6 displays the pro forma of the City’s sewer funds under current rates over the study period. All projections shown in the table are based upon the current rate structure and do not include any rate adjustments or proceeds from additional debt issuances.

Table 5-6: Status Quo Sewer Financial Plan Pro-forma

	FY 2014 <i>Budgeted</i>	FY 2015 <i>Projected</i>	FY 2016 <i>Projected</i>	FY 2017 <i>Projected</i>	FY 2018 <i>Projected</i>	FY 2019 <i>Projected</i>	FY 2020 <i>Projected</i>
REVENUES							
Sewer Revenues from Current Rates	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608
Sewer Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Misc Sewer Revenues	0	0	0	0	0	0	0
TOTAL REVENUES	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608
O&M EXPENSES							
	\$3,090,478	\$3,205,056	\$3,278,017	\$3,405,171	\$3,524,758	\$3,585,995	\$3,696,939
DEBT SERVICE							
	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET INCOME	\$318,130	\$203,552	\$130,591	\$3,436	-\$116,151	-\$177,387	-\$288,332
Sewer Operations Fund (Fund 70)							
Beginning Balance	\$2,717,125	\$2,770,733	\$2,751,664	\$2,658,710	\$2,436,389	\$1,838,532	\$1,172,815
NET INCOME	\$318,130	\$203,552	\$130,591	\$3,436	-\$116,151	-\$177,387	-\$288,332
Transfers from / (to) other Funds							
Capital R&R Fund (Fund 71)	-\$524,522	-\$500,000	-\$500,000	-\$500,000	-\$500,000	-\$500,000	-\$500,000
Capital Growth Fund (Fund 72)	\$250,000	\$250,000	\$250,000	\$250,000	\$0	\$0	\$0
Interest Income	\$10,000	\$27,380	\$26,455	\$24,243	\$18,294	\$11,670	\$3,864
Ending Balance	\$2,770,733	\$2,751,664	\$2,658,710	\$2,436,389	\$1,838,532	\$1,172,815	\$388,348
Target Balance	\$772,620	\$801,264	\$819,504	\$851,293	\$881,190	\$896,499	\$924,235
Capital R&R Funds (Fund 71)							
Beginning Balance	\$2,569,546	\$1,977,643	\$2,097,133	\$2,333,633	\$2,350,836	\$2,347,760	\$2,323,385
Revenues							
71-0-46320 (INVESTMENT INTEREST)	\$12,400	\$20,867	\$23,220	\$23,391	\$23,361	\$23,118	\$22,653
71-0-46321 (OTHER INTEREST)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from / (to) Other Funds							
From Sewer Operations (Fund 70)	\$524,522	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
From Sewer Capital Growth Fund (Fund 72)	\$250,000	\$250,000	\$200,000	\$0	\$0	\$0	\$0
CIP Expenditures	-\$1,378,825	-\$651,377	-\$486,720	-\$506,189	-\$526,436	-\$547,494	-\$569,394
Ending Balance	\$1,977,643	\$2,097,133	\$2,333,633	\$2,350,836	\$2,347,760	\$2,323,385	\$2,276,644
Target Balance	\$1,900,000	\$1,900,000	\$1,900,000	\$1,976,000	\$2,055,040	\$2,137,242	\$2,222,731
Sewer Funds (Fund 70 & 71)							
Beginning Balance	\$5,286,671	\$4,748,376	\$4,848,797	\$4,992,343	\$4,787,225	\$4,186,293	\$3,496,200
Ending Balance	\$4,748,376	\$4,848,797	\$4,992,343	\$4,787,225	\$4,186,293	\$3,496,200	\$2,664,992
Target Balance	\$2,672,620	\$2,701,264	\$2,719,504	\$2,827,293	\$2,936,230	\$3,033,740	\$3,146,966

Under the ‘status-quo’ scenario, revenues generated from rates are adequate to sufficiently recover the operating expenses of the sewer utility for several years. However, due to increasing O&M costs, the revenues are inadequate to recover operating costs (negative net operating income starting FY 2018). The combined effect of increasing operating costs and projected capital expenditures causes reserves to



be drawn down beginning FY 2017. Sewer Funds (Funds 70 & 71) remain positive but dip under the target balance by FY 2020. Note that transfers from the Capital Growth Fund (Fund 72) to both Fund 70 and 71 are occurring. The transfers repay an internal loan within Sewer Utility Funds²⁴.

5.2 Proposed Sewer Financial Plan

5.2.1 Proposed Sewer Revenue Adjustments

To ensure that the sewer utility will have adequate revenues to fund operating expenses and capital expenditures, the sewer revenue adjustments of 5 percent for FY 2019 and FY 2020 (Table 5-7) are needed.

Table 5-7: Proposed Sewer Revenue Adjustments²⁵

Fiscal Year	Effective Date	Proposed Sewer Revenue Adjustments
2015	July 1, 2014	0 percent
2016	July 1, 2015	0 percent
2017	July 1, 2016	0 percent
2018	July 1, 2017	0 percent
2019	July 1, 2018	5 percent
2020	July 1, 2019	5 percent

5.2.2 Proposed Financial Plan

A pro forma of the proposed financial plan through FY 2020 is shown in Table 5-8.

The proposed financial plan successfully meets the City’s financial needs in that the sewer utility reaches positive net income (with the exception of FY 2018 and FY 2019) while addressing the City’s O&M and CIP needs. The proposed revenue adjustments would enable the utility to fund operating expenses sufficiently and to complete the planned capital projects for the Study period.

With these adjustments, it is estimated that reserves (Funds 70, 71) will begin rebuilding by FY 2020 and that reserve balances are estimated to meet target reserve levels through FY 2020.

²⁴ The Internal Loans were from the Sewer Operations and Sewer Capital Replacement funds to the Sewer Improvement funds for cash flow purposes in the past (all within the Sewer Enterprise fund). These loans are repaid annually, and are projected to be repaid by FY 2017.

²⁵ Six years of revenue adjustments are shown to reflect the study period which goes through FY 2020. The City will seek five years of revenue adjustments (through FY 2019) from City Council.

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Table 5-8: Proposed Sewer Financial Plan Pro-forma

	FY 2014 <i>Budgeted</i>	FY 2015 <i>Projected</i>	FY 2016 <i>Projected</i>	FY 2017 <i>Projected</i>	FY 2018 <i>Projected</i>	FY 2019 <i>Projected</i>	FY 2020 <i>Projected</i>
REVENUES							
Sewer Revenues from Current Rates	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608
Sewer Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$170,430	\$349,382
Misc Sewer Revenues	0	0	0	0	0	0	0
TOTAL REVENUES	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,408,608	\$3,579,038	\$3,757,990
O&M EXPENSES							
	\$3,090,478	\$3,205,056	\$3,278,017	\$3,405,171	\$3,524,758	\$3,585,995	\$3,696,939
DEBT SERVICE							
	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET INCOME	\$318,130	\$203,552	\$130,591	\$3,436	-\$116,151	-\$6,957	\$61,051
Sewer Operations Fund (Fund 70)							
Beginning Balance	\$2,717,125	\$2,770,733	\$2,751,664	\$2,658,710	\$2,436,389	\$1,838,532	\$1,344,958
NET INCOME	\$318,130	\$203,552	\$130,591	\$3,436	-\$116,151	-\$6,957	\$61,051
Transfers from / (to) other Funds							
Capital R&R Fund (Fund 71)	-\$524,522	-\$500,000	-\$500,000	-\$500,000	-\$500,000	-\$500,000	-\$500,000
Capital Growth Fund (Fund 72)	\$250,000	\$250,000	\$250,000	\$250,000	\$0	\$0	\$0
Interest Income	\$10,000	\$27,380	\$26,455	\$24,243	\$18,294	\$13,383	\$9,106
Ending Balance	\$2,770,733	\$2,751,664	\$2,658,710	\$2,436,389	\$1,838,532	\$1,344,958	\$915,115
Target Balance	\$772,620	\$801,264	\$819,504	\$851,293	\$881,190	\$896,499	\$924,235
Capital R&R Funds (Fund 71)							
Beginning Balance	\$2,569,546	\$1,977,643	\$2,097,133	\$2,333,633	\$2,350,836	\$2,347,760	\$2,323,385
Revenues							
71-0-46320 (INVESTMENT INTEREST)	\$12,400	\$20,867	\$23,220	\$23,391	\$23,361	\$23,118	\$22,653
71-0-46321 (OTHER INTEREST)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from / (to) Other Funds							
From Sewer Operations (Fund 70)	\$524,522	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
From Sewer Capital Growth Fund (Fund 72)	\$250,000	\$250,000	\$200,000	\$0	\$0	\$0	\$0
CIP Expenditures	-\$1,378,825	-\$651,377	-\$486,720	-\$506,189	-\$526,436	-\$547,494	-\$569,394
Ending Balance	\$1,977,643	\$2,097,133	\$2,333,633	\$2,350,836	\$2,347,760	\$2,323,385	\$2,276,644
Target Balance	\$1,900,000	\$1,900,000	\$1,900,000	\$1,976,000	\$2,055,040	\$2,137,242	\$2,222,731
Sewer Funds (Fund 70 & 71)							
Beginning Balance	\$5,286,671	\$4,748,376	\$4,848,797	\$4,992,343	\$4,787,225	\$4,186,293	\$3,668,343
Ending Balance	\$4,748,376	\$4,848,797	\$4,992,343	\$4,787,225	\$4,186,293	\$3,668,343	\$3,191,759
Target Balance	\$2,672,620	\$2,701,264	\$2,719,504	\$2,827,293	\$2,936,230	\$3,033,740	\$3,146,966

Figures 5-2, 5-3, and 5-4 illustrate the proposed financial plan for the sewer utility. Figure 5-2 displays the proposed revenue adjustments until FY 2020. Figure 5-3 illustrates the operating position of the sewer utility, where the expenses and reserve funding are shown by stacked bars and total revenues at current rates and at proposed rates are shown by green and dotted green lines, respectively. The ending fund balance for the sewer utility is proposed and shown in Figure 5-4, where the green line indicates the target reserve balance as recommended by the reserve policy discussed in Section 4.



Figure 5-2: Proposed Sewer Revenue Adjustments

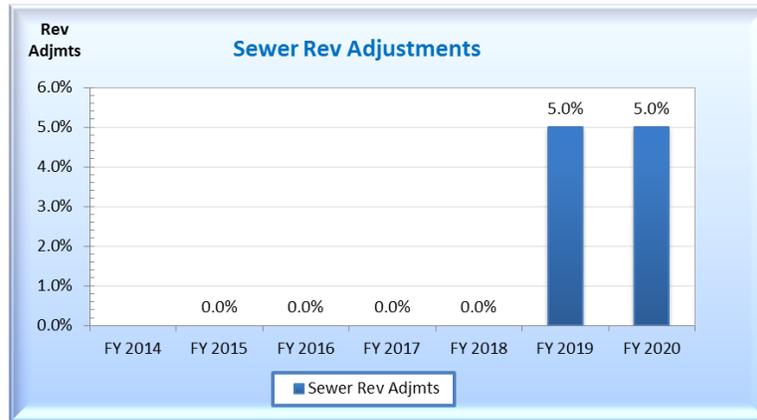
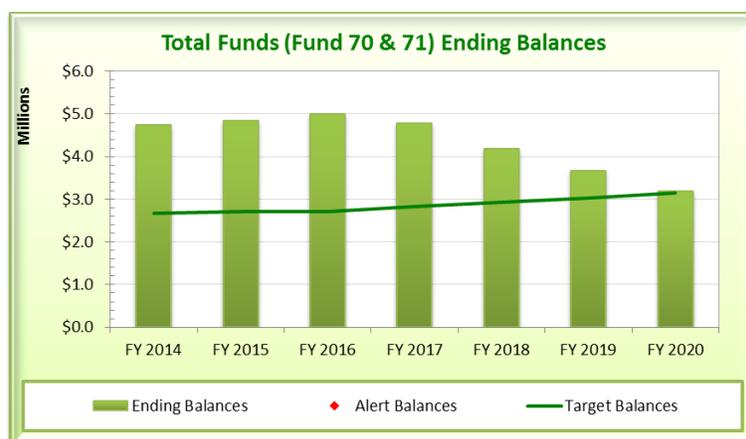


Figure 5-3: Sewer Operating Financial Plan



Figure 5-4: Projected Ending Balances for Sewer Utility Funds (Funds 70 & 71)





5.3 Cost of Service Analysis and Sewer Rates

Government Code Section 54999 requires agencies to perform a cost of service analysis at least once every ten years. A cost of service analysis ensures that rates properly reflect the cost of providing service to the customer, and are thus fair to customers.

The City had completed a cost of service analysis for its sewer services in November 2009. As part of this study, RFC performed a cost of service analysis for the City's Sewer Utility. The cost of service analysis for the sewer utility was based on loading factors as well as the revenue requirements developed through the operating and cash flow analysis. The following section describes the methodology used to allocate operating and capital costs to Sewer Flow, Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) parameters and the calculation of resulting rates.

The net cost of providing service is determined by the total revenue requirement of the utility. In a cost of service analysis, the total cost of service is proportionally allocated to customer classes based on services rendered, which takes into account the flow (Flow parameter) and strengths of such sewer discharge (BOD and TSS parameters).

For the analysis, a "test" year was established in which revenue requirements for that year were evaluated and the resulting rates for that year were calculated. The following analysis uses FY 2015 as the test year.

5.3.1 Recommendations

After reviewing the current sewer rate structure, RFC recommends the following:

1. Commercial Flow is determined by prior year Winter Average Flow (bills with meter reads from prior year January to March)
2. Assumed household sizes for residential classes
 1. Single Family Residential = 4
 2. Multi-Family Residential = 3
 3. Mobile Home = 2
3. RFC retained the City's current sewer customer classifications. Commercial customers could be split into separate classes based on strength factors published by the State Water Resources Control Board (SWRCB); however, doing so requires collecting additional data about the type of business to determine appropriate groupings of non-residential customers based on these strength loading factors. Once this data is available, RFC recommends that the City evaluate this alternative rate structure.



5.3.2 Mass Balance Analysis

The mass balance analysis is used to estimate and validate the wastewater loadings (flow and strength) generated by each customer group. While wastewater discharged into sewers for most users is not metered when it enters the wastewater system, the total amount of flow and strength entering the treatment plant and treated every day is a known quantity. Additionally, non-residential and industrial customer flows can be estimated based on their water usage. Non-residential and industrial customer strengths are estimated according to industry accepted standards. The remaining loadings, net of the total less infiltration and inflow, and non-residential and industrial, are assigned to residential users.

Table 5-9 shows the total flow and loadings of each customer class in the system, calculated using strength factors for each customer class (with commercial customers as one collective group with average strength loadings of 500 mg /L).

Table 5-9: Mass Balance Analysis²⁶

FY 13 Data	Flow (MGD)	BOD¹ (lbs/day)	TSS² (lbs/day)	Flow (ccf)	BOD (mg/L)	TSS (mg/L)
Total Plant	3.07	6,734	9,345	1,498,061	263	365
Less: I&I ³	5.00%	0.15	128	74,903	100	100
Net Plant	2.92	6,606	9,217	1,423,158	271	379
Non-Residential						
Commercial	0.40	1,672	1,672	195,576	500	500
Pool-Small	0.01	8	8	4,939	100	100
Pool-Large	0.04	33	33	19,332	100	100
Total Non-Residential	0.45	1,714	1,714	219,847	456	456
Residential						
SFR	1.49	2,950	4,524	725,595	238	365
MFR	0.82	1,633	2,504	401,623	238	365
Mobile Homes	0.16	309	474	76,093	238	365

Plant flow data was based on the City's 'Sewer SOCWA FY12-13 final use audit.pdf' file. Current household size was assumed at four per household for single-family, three for multi-family, and two for mobile home customers, with an estimated 64 gallons per capita per day (GPCD) for the residential class based on the mass balance above. Commercial flows were based on average winter flow (prior year bills with reading dates from January to March bills), and flow for the two pool classes were based on 90

²⁶ BOD – Biochemical oxygen demand of organism to break down organic material / TSS – Total suspended solids / I&I – Inflow & infiltration of water – e.g. irrigation-related runoff or rain that enters the system



percent of three-year historical average annual water consumption. Please refer to Appendix 10 for detailed descriptions of sewer customer classifications.

5.3.3 Sewer Revenue Requirements

Table 5-10 shows the test year operating and capital revenue requirements to be recovered through the cost of service, net of adjustments.

Table 5-10: Sewer Revenue Requirements

	FY 2015		
	Operating	Capital	Total
Revenue Requirements			
O&M Expenses	\$3,205,056		\$3,205,056
Current Debt Service		\$0	\$0
Proposed Debt Service		\$0	\$0
Rate Funded CIP		\$651,377	\$651,377
Total Revenue Requirements	\$3,205,056	\$651,377	\$3,856,433
Less: Miscellaneous Revenues	\$0		\$0
Adjustments			
Adjustments for Use of Reserve	\$447,825		\$447,825
Total Adjustments	\$447,825	\$0	\$447,825
Net Revenue Requirements from Rates	\$2,757,231	\$651,377	\$3,408,608

5.3.4 Unit Cost of Service Development

Tables 5-11 and 5-12 show the total units of service and the development of the FY 2015 unit costs for each parameter – Flow, BOD (biochemical-oxygen demand), and TSS(total suspended solids) – respectively. Total cost per flow or strength component for each customer class is based on combining the flows and strengths for each customer class and the unit costs of service from the calculation in Table 5-12.

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Table 5-11: Unit Cost of Service Development

	Flow	BOD	TSS	Billing	General	Total
Operating Expenses	\$1,255,340	\$386,415	\$386,415	\$188,981	\$540,081	\$2,757,231
Capital Expenses	\$510,831	\$56,451	\$56,451	\$0	\$27,644	\$651,377
Total Cost of Service	\$1,766,171	\$442,865	\$442,865	\$188,981	\$567,725	\$3,408,608
Allocation of General Costs	\$352,953	\$88,503	\$88,503	\$37,766	-\$567,725	
Net Cost of Service	\$2,119,125	\$531,368	\$531,368	\$226,747	\$0	\$3,408,608
Unit of Service with I&I	1,498,061	6,734	9,345	139,947		
Unit	ccf/yr	lbs/day	lbs/day	billings/yr		
Unit Cost before I&I	\$1.41	\$78.91	\$56.86	\$1.62		
I&I Flows	74,903	128	128			
	hcf/yr	lbs/day	lbs/day			
Allocation of I&I Costs	-\$105,956	-\$10,108	-\$7,284	\$123,349		
I&I Unit Cost per bill				\$0.88		
Unit Cost	\$1.41	\$78.91	\$56.86	\$2.50		
Unit of Service w/o I&I	1,423,158	6,606	9,217	139,947		
Unit	hcf/yr	lbs/day	lbs/day	billings/yr		
Total Cost of Service from Rates	\$2,013,168	\$521,260	\$524,084	\$350,096		

These unit costs represent the cost allocable to each customer class, and they effectively redistribute the cost responsibilities amongst customer classes to equitably reflect each class' proportionate share of total costs (Table 5-12). Thus, the cost of service (COS) based rates will shift among customer classes. In the City's case, for example, the cost of service showed that single-family customers' share of total system costs should decrease (Table 5-13). Please refer to Appendix 3 for further detail on cost allocation for capital and operating expenses.

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Table 5-12: Cost of Service Allocation to Customer Classes

		Flow	BOD	TSS	Billing	Total
Residential						
SFR	Unit	725,595	2,950	4,524	69,458	
	Cost	\$1,026,411	\$232,768	\$257,257	\$173,759	\$1,690,195
MFR						
MFR	Unit	401,623	1,633	2,504	51,261	
	Cost	\$568,128	\$128,839	\$142,394	\$128,236	\$967,596
Mobile Homes						
Mobile Homes	Unit	76,093	309	474	14,568	
	Cost	\$107,639	\$24,410	\$26,978	\$36,444	\$195,471
Non-Residential						
Commercial						
Commercial	Unit	195,576	1,672	1,672	4,136	
	Cost	\$276,657	\$131,967	\$95,095	\$10,347	\$514,066
Pool-Small						
Pool-Small	Unit	4,939	8	8	208	
	Cost	\$6,987	\$667	\$480	\$520	\$8,654
Pool-Large						
Pool-Large	Unit	19,332	33	33	316	
	Cost	\$27,347	\$2,609	\$1,880	\$791	\$32,626
TOTAL		\$2,013,168	\$521,260	\$524,084	\$350,096	\$3,408,608

5.3.5 Proposed Sewer Rates

Table 5-13 shows the proposed FY 2015 fixed and flow-based rates effective July 1, 2014, and Table 5-14 shows the proposed six-year rates.

Table 5-13: Proposed Sewer Rates for FY 2015 (effective July 1, 2014)

	Proposed	Current	\$ Change	Difference
Residential				
SFR	\$24.34	\$27.64	-\$3.30	-12%
MFR	\$18.88	\$17.15	\$1.73	10%
Mobile Homes	\$13.42	\$14.74	-\$1.32	-9%
Non-Residential				
Commercial – Fixed	\$10.82	\$7.88	\$2.94	37%
Commercial – Flow	\$2.40 / ccf	\$1.17 – \$1.64		
Pool-Small	\$41.61	\$21.30	\$20.31	95%
Pool-Large	\$103.25	\$49.14	\$54.11	110%

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Table 5-14: Proposed Sewer Rates²⁷

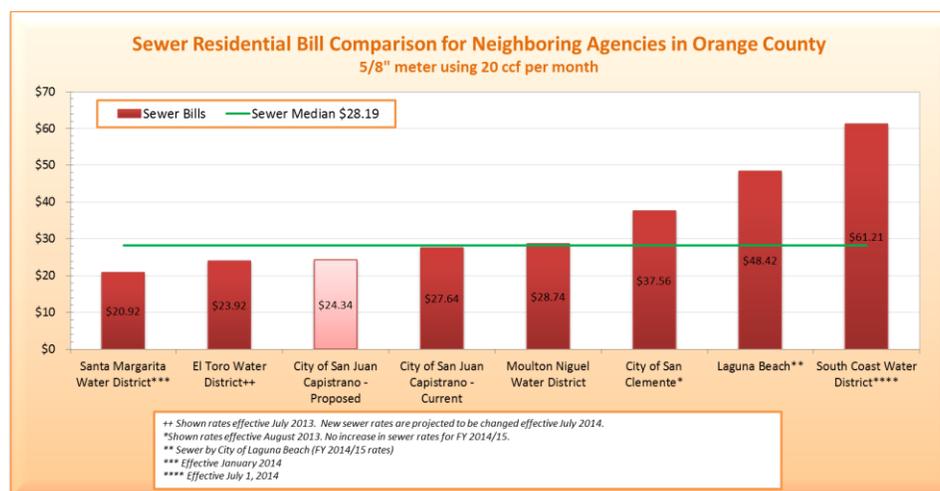
	Effective	FY 2015 7/1/14	FY 2016 7/1/15	FY 2017 7/1/16	FY 2018 7/1/17	FY 2019 7/1/18	FY 2020 7/1/19
Revenue Adjustments		0%	0%	0%	0%	5%	5%
Residential							
SFR	\$/month	\$24.34	\$24.34	\$24.34	\$24.34	\$25.56	\$26.84
MFR	\$/month	\$18.88	\$18.88	\$18.88	\$18.88	\$19.83	\$20.83
Mobile Homes	\$/month	\$13.42	\$13.42	\$13.42	\$13.42	\$14.10	\$14.81
Non-Residential							
Commercial Fixed	\$/month	\$10.82	\$10.82	\$10.82	\$10.82	\$11.37	\$11.94
Commercial Flow*	\$/ccf	\$2.40	\$2.40	\$2.40	\$2.40	\$2.52	\$2.65
Pool-Small	\$/month	\$41.61	\$41.61	\$41.61	\$41.61	\$43.70	\$45.89
Pool-Large	\$/month	\$103.25	\$103.25	\$103.25	\$103.25	\$108.42	\$113.85

*Based on Winter Usage

5.3.6 Residential Sewer Bill Comparison for Neighboring Communities in Orange County

RFC conducted a rate survey for six neighboring communities. The estimated monthly sewer bills are shown in Figure 5-5. The City’s sewer bill under proposed rates, marked in light red.

Figure 5-5: Sewer Residential Bill Comparison



²⁷ Six years of rates are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved rates (through FY 2019) from City Council.



6 Water Utility – Financial Plan and Rates

6.1 Revenue Requirements

As with the sewer and non-potable utilities, this section of the report provides a discussion of the projected revenues, O&M and capital expenditures, capital improvement financing plan, debt service requirements, and revenue adjustments required to ensure the fiscal sustainability and solvency of the water utility.

6.1.1 Revenues from Current Rates

The City's current water budget-based four-tiered rate structure consists of an indoor and outdoor allocation for all customer classes, except for landscape (rate code WCF), agriculture (AG – rate code WCG), commercial classes (rate codes WCH and WCI) and City Farm (rate code WCM). The current structure includes the following elements: landscape does not have an indoor allocation, and commercial is based on a four-tiered inclining rate structure. City Farm is a uniform rate for all usage at the current Tier I rate. The outdoor allocation changes monthly based on weather conditions, and it is based on irrigable area. Additionally, there is a meter-based monthly charge for all accounts. Table 6-1 shows the current water rate structure. Please see Appendix 9 for detailed descriptions of customer classifications.

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Table 6-1: Current Water Rate Structure

USAGE RATE CODES - per ccf		100% TWB					
CODE	CUSTOMER TYPE	Base Rate	TIER I	TIER II	TIER III	ALLOCATION TYPE (Alloc. in ccf)	Landscape Area
WCA	REGULAR LOT	\$3.18	\$4.24	\$6.37	\$11.67	Indoor @ [6+3] + Standard Outdoor (3,636 Sq Ft)	3,636
WCB	LARGE LOT	\$3.18	\$4.24	\$6.37	\$11.67	Indoor @ [6+3] (x # Units) + Outdoor by SQ FT	Lot Size - 2 * Bld
WCC	MASTER METERED RESIDENTIAL	\$3.96	\$5.27	\$7.92	\$14.51	Indoor @ [4+2] (x # units) + Outdoor by SQ FT	Lot Size
WCD	MULTI WITH Own Irrigation	\$3.52	\$4.69	\$7.04	\$12.91	Indoor @ [6+3] (x # Units)+ Standard Outdoor	3,636
WCE	MULTI W/O Irr -Regular	\$3.52	\$4.69	\$7.04	\$12.91	Indoor only @ [6+3] (x # Units)	
WCN	MULTI W/O Irr- High Density	\$3.52	\$4.69	\$7.04	\$12.91	Indoor only @ [8+4] (x # Units)	
WCF	LANDSCAPE		\$3.65	\$5.48	\$10.03	Outdoor only by SQ FT	Lot Size
WCG	AG	\$2.81	\$3.74	\$5.61	\$10.29	Indoor @ [6+3] (# Units) + Outdoor by SQ FT	Lot Size - 2 * Bld
WCH	COMMERCIAL	\$3.07	\$4.09	\$6.14	\$11.24	Indoor only @ 6 (x # Units)	
WCI	CONSTRUCTION	\$6.37	\$6.37	\$6.37	\$6.37	No Allocations - All at Tier II	
WCJ	NON-POTABLE	\$2.68	\$3.57	\$5.36	\$9.83	Outdoor only; by SQ FT	
WCK	NO CHARGE - USE	\$0.00	N/A	N/A	N/A		
WCL	FIRELINES	\$6.37	\$6.37	\$6.37	\$6.37	No Allocations - All at Tier I	
WCM	CITY FARM (AG rate, one tier)	\$3.09	\$4.13	\$6.19	\$11.35	No Allocations - All at Tier I	
WCO	RECYCLED	\$2.68	\$3.57	\$5.36	\$9.83	Outdoor only; by SQ FT	

SERVICE CHARGE RATE CODES per month			
CODE	SERVICE SIZE	CHARGE	
WSA	5/8"	\$19.66	
WSB	1"	\$29.50	
WSC	1.5"	\$44.24	
WSD	2"	\$61.87	
WSE	3"	\$104.22	
WSF	4"	\$164.19	
WSG	6"	\$314.62	
WSH	8"	\$496.50	
WSI	MISC. FLAT RATE USE	\$49.36	
WSJ	MOBILE HOMES	\$1.97	Per Space
WSK	TEMP SERVICE - JUMPER	\$19.66	
WSL	FIRELINE 6"	\$88.49	
WSL	FIRELINE 8"	\$88.49	
WSS	CONSTRUCTION	\$104.22	(i.e. \$3.3286 [\$3.33] / day)
WST	NO CHARGE- SERV.	\$0.00	No charge, i.e. Compound meter
WSU	RECYCLED	\$19.66	



Table 6-2 shows a summary of the current number of potable water accounts by meter size.

Table 6-2: Potable Water Accounts Summary as of June 30, 2013

Total Potable Accounts	FY 2013 ²⁸
5/8 in.	6,784
1 in.	2,993
1½ in.	567
2 in.	698
3 in.	9
4 in.	19
6 in.	2
8 in.	1
Misc. Flat Rate Use	1
Mobile Homes (per space)	8
Temp-Service Jumper	0
Fireline 6" ²⁹	87
Fireline 8"	87
Construction	39
TOTAL	11,295

Table 6-3 shows projected sales according to the current base commodity rate and the additional three tiers. For purposes of this Rate Study, projected potable water sales are assumed to remain constant through the study period at 6,652 AF based on no assumed account growth.

Table 6-3: Projected Water Sales at Current Rates

	FY 2014
Base Rate	808,075
Tier 1	1,780,207
Tier 2	274,649
Tier 3	34,812
Total (ccf)	2,897,743
Total (AF)	6,652 AF

²⁸ Potable accounts for FY 2013 projected to remain constant through the study period based on no assumed growth.

²⁹ Currently, the City does not charge fireline services by size. An analysis conducted by City staff indicates that about 50% of fireline services are 6-inch and the remaining are 8-inch.

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Table 6-4 shows projected service and commodity-based revenues for the water utility based on current rates and current rate structure. For purposes of this Rate Study, projected revenues are assumed to remain constant through the study period at \$15.9M per year based on no assumed account or usage growth.

Table 6-4: Projected Water Revenues from Current Rates

	FY 2014
Service Charges	\$3,777,752
Commodity Charges	\$12,114,320
Total Revenues from Current Rates	\$15,892,072

6.1.2 Miscellaneous Water Revenues

In addition to revenues from rates, water funds have miscellaneous revenues from property tax (Fund 61), Metropolitan Water District of Southern California (MWD) grant (Fund 62 for local Groundwater Recovery Plant (GWRP), \$250/AF for 4187.48 AF), and revenues for other services such as late payment, plan check, inspection, meter installation fees and other miscellaneous revenues. Table 6-5 summarizes the projected miscellaneous water revenues for the Study period.

Table 6-5: Projected Miscellaneous Water Revenues

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Other Operating Revenues (Fund 60)	\$471,560	\$192,210	\$192,210	\$192,210	\$192,210	\$192,210	\$192,210
Property Tax (Fund 61)	\$886,000	\$894,860	\$903,809	\$912,847	\$921,975	\$931,195	\$940,507
MWD Grant (Fund 62)	\$960,750	\$1,046,870	\$1,046,870	\$1,046,870	\$1,046,870	\$1,046,870	\$1,046,870
Total	\$2,318,310	\$2,133,940	\$2,142,889	\$2,151,927	\$2,161,055	\$2,170,275	\$2,179,587

6.1.3 Operations & Maintenance Expenses

The City has two sources of water supply to meet the annual water demand for its customers: local water treated at GWRP and treated water imported from MWD via Municipal Water District of Orange County (MWDOC). The City's projected water usage was used as the basis for determining the appropriate amount of water supply necessary and the associated water supply costs. A water loss factor of 10 percent was also assumed in determining the required water supply. Imported water cost estimates were provided by City Staff, which were based on rate projections for MWD and MWDOC as of April 17, 2013 (see Appendix 11). GWRP expenses are accounted in the operations and maintenance

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(O&M) expenses for Fund 62. Water supply costs are shown in Table 6-6 (see Appendix 12 for water supply cost details).

Table 6-6: Projected Water Supply Costs

Water Supply Costs	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
GWRP	3,843 AF	4,187 AF					
MWDOC	3,475 AF	3,130 AF					
Total³⁰	7,318 AF	7,317 AF					
GWRP O&M (Fund 62)	\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274
MWD Grant	-\$960,750	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870
Net GWRP Production Cost	\$1,562,855	\$2,234,329	\$2,165,446	\$2,278,878	\$2,401,089	\$2,528,194	\$2,660,404
Unit GWRP Cost	\$406.68	\$533.63	\$517.18	\$544.27	\$573.46	\$603.82	\$635.40
MWDOC Fixed Costs³¹							
Readiness to Serve (RTS)	\$327,700	\$337,531	\$347,657	\$358,087	\$368,829	\$379,894	\$391,291
MWD Capacity Charge	\$97,769	\$100,702	\$103,723	\$106,835	\$110,040	\$113,341	\$116,741
MWDOC Operating Charge (Per Meter)	\$95,474	\$99,996	\$111,860	\$112,425	\$114,120	\$114,685	\$115,815
SCP Operation Surcharge	\$15,273	\$15,731	\$16,203	\$16,689	\$17,190	\$17,706	\$18,237
Total MWDOC Fixed Costs	\$536,217	\$553,961	\$579,443	\$594,036	\$610,179	\$625,626	\$642,084
MWDOC Variable							
Cost per Acre Foot (July - December) ³²	\$847.00	\$890.00	\$920.00	\$966.00	\$1,014.00	\$1,065.00	\$1,118.00
Cost per Acre Foot (January - June)	\$890.00	\$920.00	\$966.00	\$1,014.00	\$1,065.00	\$1,118.00	\$1,174.00
Average cost Per Acre Foot	\$868.50	\$905.00	\$943.00	\$990.00	\$1,039.50	\$1,091.50	\$1,146.00
MWDOC rate/AF	\$3.25	\$2.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Average Cost + MWDOC	\$871.75	\$907.55	\$943.00	\$990.00	\$1,039.50	\$1,091.50	\$1,146.00
MWDOC Variable Cost	\$3,028,924	\$2,840,680	\$2,951,640	\$3,098,753	\$3,253,690	\$3,416,453	\$3,587,041

³⁰ Includes a 10% water loss

³¹ Based on actual acre feet of water billed by MWDOC through FY 2013. FY 2014 is based on the FY 2014 amended budget. FY 2015 through FY 2020 is based on FY 2015 projected imported water and MWD/MWDOC rate projections as of April 17, 2013.

³² Based on Metropolitan Water District and MWDOC projected water rates as of April 17, 2013

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The City’s FY 2014 budget values and the assumed inflation factors for the study period as detailed in Section 3.1 were used as the basis for projecting O&M costs. RFC worked closely with City staff to identify non-recurring costs and other anticipated expenses for the Study period. Table 6-7 summarizes budgeted and projected O&M expenses for the water utility according to each of its three funds. Note that the San Juan Basin Authority (SJBA) operating lease is included in the Fund 61 O&M expenses, and that FY 2015 Fund 60 is impacted by the moving of non-potable to a new fund. See Appendix 5 for detailed water O&M expenses.

Table 6-7: Projected Water Operations & Maintenance Expenses

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Fund 60 (Operating)	\$9,083,666	\$8,408,501	\$8,669,135	\$8,949,600	\$9,345,494	\$9,606,478	\$9,970,626
Fund 61 (Debt Service)	\$2,239,062	\$2,239,168	\$2,237,226	\$2,236,293	\$2,232,477	\$2,230,645	\$2,230,545
Fund 62 (GWRP)	\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274
Total Operating Expenses	\$13,846,333	\$13,928,867	\$14,118,676	\$14,511,641	\$15,025,930	\$15,412,187	\$15,908,445
Percentage Change		0.6%	1.4%	2.8%	3.5%	2.6%	3.2%

6.1.4 Current Debt Service

The City has three debt issuances outstanding – the 2002, 2004, and 2009 Certificates of Participation (COP) – which obligate the City to approximately \$2.8 million in annual debt expense, as shown in Table 6-8. See Appendix 8 for descriptions of existing COPs and Appendix 5 for details about the associated debt service in coming years. No new debt is projected. SJBA operating lease considered as O&M expenses is included in the Fund 61 O&M expenses shown in Table 6-7 above.

Table 6-8: Current Water Debt Service Schedule

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
2009 COP ³³	\$792,544	\$795,844	\$793,644	\$791,044	\$792,944	\$794,244	\$790,044
2004 COP	\$1,421,894	\$1,420,869	\$1,384,394	\$1,382,084	\$1,383,156	\$1,387,431	\$1,384,931
2002 COP	\$664,076	\$664,936	\$664,461	\$662,493	\$663,733	\$663,383	\$661,133
Total	\$2,878,514	\$2,881,649	\$2,842,499	\$2,835,621	\$2,839,833	\$2,845,058	\$2,836,108

³³ Certificates of Participation



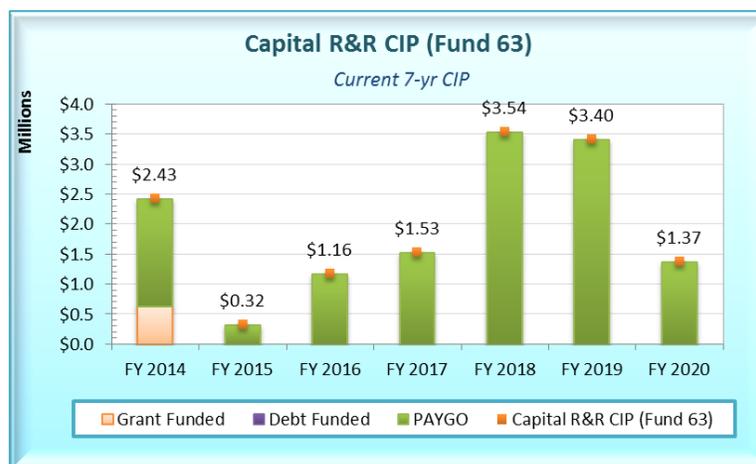
6.1.5 Capital Repair and Replacement Expenditures

The City has adopted a seven-year Capital Improvement Plan (CIP) through FY 2020 to address future water utility needs. The Repair and Replacement (R&R) CIP items represented in Figure 6-1 are inclusive of construction inflation costs over the study period, and are projected to be funded through a combination of pay-as-you-go (PAYGO) and grant funding (\$632K of FY 2014 funding). RFC evaluated four different CIP scenarios (See Appendix 5 for detailed Water CIP scenarios). See Appendices 1 and 5 for further information.

1. **Comprehensive CIP** (adds back the previously removed / deferred CIP)
2. **Updated Current 7-year CIP** (with updated financial information)
3. **Reduced CIP** (removes some 7-year CIP projects)
4. **Minimal CIP** (removes all CIP except those that are obligated by contract or regulation)

Figure 6-1 displays the recommended CIP from City Council based on the outcome of the March 18, 2014, rate workshop (see Appendix 2).

Figure 6-1: Projected Water Capital Repair & Replacement



6.1.6 Status Quo Financial Plan

Table 6-9 on the following page displays the pro forma of the City’s Water Funds 60, 61, 62, and 63 under current rates over the forecast period. All projections shown in the table are based upon current rate structure and do not include any rate adjustments or proceeds from additional debt issuances.

Under the ‘status-quo’ scenario, the water utility will face negative net income – revenues generated from rates and other miscellaneous revenues are inadequate to sufficiently recover operating expenses of the water utility in FY 2019. Additionally, the positive net income that is sustained through FY 2018 is

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not sufficient to restore the water utility's fund balances to a positive position. Based on increasing water supply costs and increasing projected CIP/R&R expenditures, the City is unable to maintain fiscal sustainability and solvency under current rates.

Table 6-9: Status Quo Water Financial Plan (no revenue adjustments)

	FY 2014 <i>Budgeted</i>	FY 2015 <i>Projected</i>	FY 2016 <i>Projected</i>	FY 2017 <i>Projected</i>	FY 2018 <i>Projected</i>	FY 2019 <i>Projected</i>	FY 2020 <i>Projected</i>
REVENUES							
Revenues from Current Rates	\$17,050,207	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072
Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Misc Revenues	\$2,318,310	\$2,133,940	\$2,142,889	\$2,151,927	\$2,161,055	\$2,170,275	\$2,179,587
TOTAL REVENUES	\$19,368,517	\$18,026,012	\$18,034,961	\$18,043,999	\$18,053,127	\$18,062,347	\$18,071,659
OPERATING EXPENSES							
O&M EXPENSES							
Fund 60 O&M	\$9,083,666	\$8,408,501	\$8,669,135	\$8,949,600	\$9,345,494	\$9,606,478	\$9,970,626
Fund 61 O&M	\$2,239,062	\$2,239,168	\$2,237,226	\$2,236,293	\$2,232,477	\$2,230,645	\$2,230,545
Fund 62 O&M	\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274
SUBTOTAL O&M EXPENSES	\$13,846,333	\$13,928,867	\$14,118,676	\$14,511,641	\$15,025,930	\$15,412,187	\$15,908,445
WATER DEBT SERVICE							
Existing Debt Service	\$2,878,514	\$2,881,649	\$2,842,499	\$2,835,621	\$2,839,833	\$2,845,058	\$2,836,108
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUBTOTAL WATER DEBT SERVICE	\$2,878,514	\$2,881,649	\$2,842,499	\$2,835,621	\$2,839,833	\$2,845,058	\$2,836,108
TOTAL EXPENSES	\$16,724,847	\$16,810,516	\$16,961,175	\$17,347,261	\$17,865,763	\$18,257,244	\$18,744,553
NET INCOME	\$2,643,671	\$1,215,497	\$1,073,786	\$696,738	\$187,365	-\$194,897	-\$672,894
Fund 60, 61 & 62							
Beginning Operating Fund Balance	-\$3,781,759	-\$2,498,216	-\$4,482,720	-\$5,408,934	-\$6,712,196	-\$8,524,831	-\$10,719,728
Transfers from /(to) Other Funds							
Capital R&R Fund (Fund 63)	-\$1,370,128	-\$3,200,000	-\$2,000,000	-\$2,000,000	-\$2,000,000	-\$2,000,000	-\$2,000,000
Interest Income	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0
Net Income	\$2,643,671	\$1,215,497	\$1,073,786	\$696,738	\$187,365	-\$194,897	-\$672,894
Ending Operating Fund Balance	-\$2,498,216	-\$4,482,720	-\$5,408,934	-\$6,712,196	-\$8,524,831	-\$10,719,728	-\$13,392,622
Target Balance	\$6,561,583	\$6,582,217	\$6,818,459	\$7,015,364	\$7,245,560	\$7,446,796	\$7,678,673
Capital R&R Funds (Fund 63)							
Beginning Balance	\$429,182	\$6,073	\$2,881,629	\$3,717,990	\$4,189,043	\$2,653,731	\$1,248,928
Revenues							
63-0-46320 (GRANTS-STATE)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63-0-46320 (INVESTMENT INTEREST)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63-0-48101 (OTHER REIMBURSEMENTS)	\$632,755	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from /(to) Other Funds							
From Water Operations (Fund 60, 61 & 62)	\$1,370,128	\$3,200,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
CIP Expenditures	-\$2,425,992	-\$324,444	-\$1,163,639	-\$1,528,947	-\$3,535,313	-\$3,404,803	-\$1,370,973
Ending Balance	\$6,073	\$2,881,629	\$3,717,990	\$4,189,043	\$2,653,731	\$1,248,928	\$1,877,955
Target Balance	\$4,900,000	\$4,900,000	\$5,299,840	\$5,511,834	\$5,732,307	\$5,961,599	\$6,200,063
Water Funds (60, 61, 62 & 63)							
Beginning Balance	-\$3,352,577	-\$2,492,143	-\$1,601,090	-\$1,690,944	-\$2,523,153	-\$5,871,100	-\$9,470,801
Ending Balance	-\$2,492,143	-\$1,601,090	-\$1,690,944	-\$2,523,153	-\$5,871,100	-\$9,470,801	-\$11,514,668
Target Balance	\$11,461,583	\$11,482,217	\$12,118,299	\$12,527,197	\$12,977,867	\$13,408,396	\$13,878,737



6.2 Forecasted Financial Plan

6.2.1 Forecasted Revenue Adjustments

RFC presented five financial plan options to City Council on February 10, 2014.³⁴ The City Council provided input on the selected financial plan during the March 6, 2014, City Council meeting and definitive direction on revenue adjustments during the March 18, 2014, City Council meeting. RFC moved forward with the forecasted 5 percent rate adjustments through FY 2020 (Table 6-10). Please refer to Appendix 1 for other financial plan options presented during the February 10, 2014, workshop.

Table 6-10: Forecasted Water Revenue Adjustments³⁵

Fiscal Year	Effective Date	Forecasted Water Revenue Adjustments
2015	July 1, 2014	5 percent
2016	July 1, 2015	5 percent
2017	July 1, 2016	5 percent
2018	July 1, 2017	5 percent
2019	July 1, 2018	5 percent
2020	July 1, 2019	5 percent

6.2.2 Forecasted Financial Plan

The forecasted financial plan includes the revenue adjustments shown in Table 6-10. With these adjustments, it is estimated that the water fund reserves will increase and reach a positive balance by FY 2016 (see the increasing orange bars in Figure 6-2), while the fund continues to meet debt coverage requirements. The fund will continue building toward meeting target balances by FY 2020 (Figure 6-3), meeting 48 percent of the target balance by then.

³⁴ The February 10, 2014, presentation to City Council can be referenced in the Appendix 1.

³⁵ Six years of revenue adjustments are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved adjustments (through FY 2019) from City Council.

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The pro-forma in Table 6-11 summarizes the water utility funds' positions, which include forecasted revenue adjustments.

Table 6-11: Financial Plan Pro-forma for Water Funds

	FY 2014 <i>Budgeted</i>	FY 2015 <i>Projected</i>	FY 2016 <i>Projected</i>	FY 2017 <i>Projected</i>	FY 2018 <i>Projected</i>	FY 2019 <i>Projected</i>	FY 2020 <i>Projected</i>
REVENUES							
Revenues from Current Rates	\$17,050,207	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072	\$15,892,072
Revenue Adjustments	\$0	\$794,604	\$1,628,937	\$2,504,988	\$3,424,841	\$4,390,687	\$5,404,825
Misc Revenues	\$2,318,310	\$2,133,940	\$2,142,889	\$2,151,927	\$2,161,055	\$2,170,275	\$2,179,587
TOTAL REVENUES	\$19,368,517	\$18,820,616	\$19,663,898	\$20,548,987	\$21,477,968	\$22,453,034	\$23,476,484
OPERATING EXPENSES							
O&M EXPENSES							
Fund 60 O&M	\$9,083,666	\$8,408,501	\$8,669,135	\$8,949,600	\$9,345,494	\$9,606,478	\$9,970,626
Fund 61 O&M	\$2,239,062	\$2,239,168	\$2,237,226	\$2,236,293	\$2,232,477	\$2,230,645	\$2,230,545
Fund 62 O&M	\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274
SUBTOTAL O&M EXPENSES	\$13,846,333	\$13,928,867	\$14,118,676	\$14,511,641	\$15,025,930	\$15,412,187	\$15,908,445
WATER DEBT SERVICE							
Existing Debt Service	\$2,878,514	\$2,881,649	\$2,842,499	\$2,835,621	\$2,839,833	\$2,845,058	\$2,836,108
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUBTOTAL WATER DEBT SERVICE	\$2,878,514	\$2,881,649	\$2,842,499	\$2,835,621	\$2,839,833	\$2,845,058	\$2,836,108
TOTAL EXPENSES	\$16,724,847	\$16,810,516	\$16,961,175	\$17,347,261	\$17,865,763	\$18,257,244	\$18,744,553
NET INCOME	\$2,643,671	\$2,010,100	\$2,702,723	\$3,201,726	\$3,612,206	\$4,195,789	\$4,731,931
Fund 60, 61 & 62							
Beginning Operating Fund Balance	-\$3,781,759	-\$2,498,216	-\$3,688,116	-\$2,985,393	-\$1,783,667	-\$171,461	\$2,044,673
Transfers from /(to) Other Funds							
Capital R&R Fund (Fund 63)	-\$1,370,128	-\$3,200,000	-\$2,000,000	-\$2,000,000	-\$2,000,000	-\$2,000,000	-\$2,000,000
Interest Income	\$10,000	\$0	\$0	\$0	\$0	\$20,345	\$48,006
Net Income	\$2,643,671	\$2,010,100	\$2,702,723	\$3,201,726	\$3,612,206	\$4,195,789	\$4,731,931
Ending Operating Fund Balance	-\$2,498,216	-\$3,688,116	-\$2,985,393	-\$1,783,667	-\$171,461	\$2,044,673	\$4,824,610
Target Balance	\$6,561,583	\$6,582,217	\$6,818,459	\$7,015,364	\$7,245,560	\$7,446,796	\$7,678,673
Capital R&R Funds (Fund 63)							
Beginning Balance	\$429,182	\$6,073	\$2,881,629	\$3,717,990	\$4,189,043	\$2,653,731	\$1,248,928
Revenues							
63-0-46320 (GRANTS-STATE)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63-0-46320 (INVESTMENT INTEREST)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
63-0-48101 (OTHER REIMBURSEMENTS)	\$632,755	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from /(to) Other Funds							
From Water Operations (Fund 60, 61 & 62)	\$1,370,128	\$3,200,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
CIP Expenditures	-\$2,425,992	-\$324,444	-\$1,163,639	-\$1,528,947	-\$3,535,313	-\$3,404,803	-\$1,370,973
Ending Balance	\$6,073	\$2,881,629	\$3,717,990	\$4,189,043	\$2,653,731	\$1,248,928	\$1,877,955
Target Balance	\$4,900,000	\$4,900,000	\$5,299,840	\$5,511,834	\$5,732,307	\$5,961,599	\$6,200,063
Water Funds (60, 61, 62 & 63)							
Beginning Balance	-\$3,352,577	-\$2,492,143	-\$806,487	\$732,597	\$2,405,376	\$2,482,270	\$3,293,601
Ending Balance	-\$2,492,143	-\$806,487	\$732,597	\$2,405,376	\$2,482,270	\$3,293,601	\$6,702,565
Target Balance	\$11,461,583	\$11,482,217	\$12,118,299	\$12,527,197	\$12,977,867	\$13,408,396	\$13,878,737

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Figures 6-2, 6-3, and 6-4 illustrate the forecasted financial plan for the water utility. Figure 6-2 displays the projected revenue adjustments based on the forecasted financial plan through FY 2020. Figure 6-3 illustrates the operating position of the water utility, where the expenses and reserve funding are shown by stacked bars, and total revenues at current rates and at proposed rates based on the forecasted financial plan are shown by green and dotted green lines, respectively. The ending fund balance for the water utility is forecasted and shown in Figure 6-4, where the green line indicates the target reserve balance as recommended by the reserve policy discussed in Section 4.

Figure 6-2: Water Revenue Adjustments and Debt Coverage

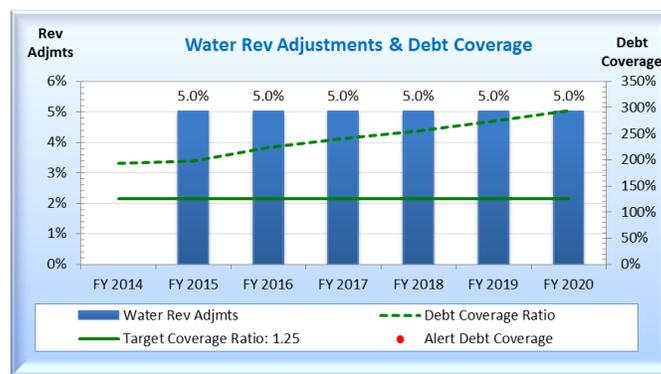
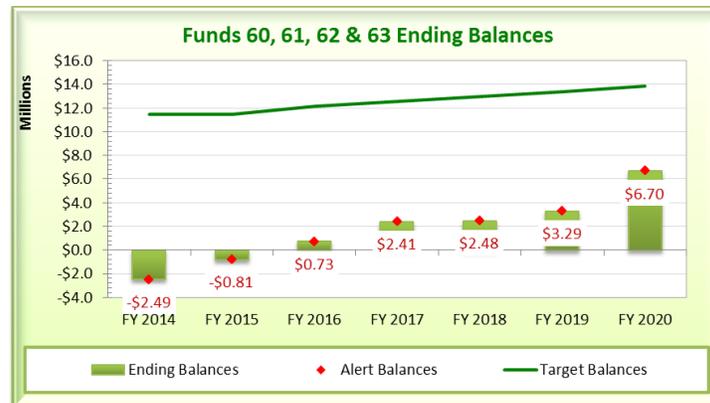


Figure 6-3: Water Operating Financial Plan, excluding RW and Non-Potable (starting FY 2015)





Figure 6-4: Forecasted Water Funds Ending Balances (Funds 60, 61, 62 and 63)



6.3 Pricing Objectives Exercise and Results

Each rate structure has its own strengths and weakness, and there is no perfect “one-size-fits-all” rate structure that addresses all pricing objectives. The key pricing objectives which are considered most important by a utility will work as a fundamental framework for the design and development of the appropriate rate structure for that utility. Currently, there are four common types of conservation rate structures: uniform, seasonal, inclining tiered and water budget-based tiered rates.

1. A uniform rate structure charges customers a uniform rate per unit of water consumed. This rate remains constant regardless of usage, and such a structure was developed as a simple means to communicate a unit-based cost structure to customers while maintaining revenue stability and ease of administration, implementation, and understanding. However, uniform rates poorly address conservation needs, and do not necessarily provide affordability for essential use.
2. Seasonal rate structures charge customers volumetric rates which differ based on the season. Normally, these rate structures provide a greater conservation incentive during the summer season, while maintaining overall simplicity. However, because seasonal rates generally derive much of the utility’s revenues during the peak season (which is often more volatile because of weather and economic conditions), revenue under seasonal rates tends to be more unstable. Also, seasonal rates may affect the affordability of water during the peak season for essential use. This type of rate structure is common in communities that are focused on reducing peak demand or summer use.
3. Inclining tiered rates also charge volumetric rates, but the charge per unit of water increases as consumption increases. Inclining tiered rates may address conservation needs, while providing simplicity and ease of administration. Also, depending on the behavior of individual customers, inclining tiered rates may provide affordability for essential usage. However, inclining tiered



rates can be disadvantageous to large water users which may have larger families or irrigation areas than the average customer.

4. Water budget-based tiered rate structures were developed as a tool for water resource management during the severe drought in the 1990s where each customer was given an allocation of water use based on an efficiency target for indoor and outdoor usage. The allocation target was then translated into an individualized tiered rate structure to promote water efficiency. Water budget rate structures can provide revenue stability, affordability for essential use, and equitability in allocating different water supply sources. Challenges with this rate structure include high administrative and implementation costs. Many of these administrative and implementation costs are incurred to conduct a successful public outreach campaign to improve customer understanding and to encourage efficient use of water. The City was the pioneer in implementing water budget tiered rates in 1991, thus there is very little to no incremental administrative and implementation costs if the City chooses to retain its water budget rate structure.

To determine which rate structures to evaluate, RFC collaborated with City staff and identified a list of 18 water pricing objectives (Table 6-12) that relate to the City's unique characteristics and needs. During the February 10, 2014, workshop, RFC discussed each pricing objective with the Utilities Commission and City Council in detail prior to the exercise. RFC and City staff requested direction from Utilities Commission and City Council on the policy priorities that would drive the rate design process. In order to inform the Commission/Council, each policy objective included a policy statement, discussion notes and several rate-design principles.



Table 6-12: Policy Objectives and Associated Pricing Objectives for Water Rate Design

Conservation	Funding	Rate Stability	Equity	Administration
<ul style="list-style-type: none"> •Promotes Conservation •Promotes Efficiency •Target Outdoor Water Use 	<ul style="list-style-type: none"> •Revenue Stability •Provide Funding Mechanism for Conservation Program 	<ul style="list-style-type: none"> •Rate Stability •Mitigate Customer Impact •Affordability for Essential Use 	<ul style="list-style-type: none"> •Equitable in Allocating Water Resource Cost •Equitable in Allocating CIP Cost •Perceived to be Fair to the Public •Consistent Residential Rates (SFR vs. MFR) •Based On Individual Needs •Single Rate for Potable Customer Class 	<ul style="list-style-type: none"> •Customer Understanding •Ease of Implementation •Ease of Administration •Scientific Method



6.3.1 Policy Objective 1 – Conservation

Policy Statement: The value of water as a limited resource should be reflected in the rates, and the City's rate structure should discourage wasteful use and encourage efficient use of water resources.

Discussion: This principle is intended to recognize the limited resources of the City and the State, as well as the environmental impact of generating new water resources. The City's rates should encourage the efficient use of water. This principle is intended not to discourage reasonable uses of these resources but to encourage efficient use of limited resources by pricing water, as a commodity, roughly equal to its true cost.

Advantages of the Policy Objective: This principle recognizes the multiple uses of our natural resources and makes a positive statement to all customers and outside parties that the City encourages the efficient use of its limited resources.

Disadvantages of the Policy Objective: Some customers may believe this principle necessarily implies adoption of aggressive conservation-based rates such as multi-tiered rates.

Supporting Pricing Objectives:

Promotes Conservation – The objective of water conservation is to reduce water usage and achieve savings over the year.

Promotes Efficiency – The objective of water efficiency includes development of benchmark standards associated with the appropriate amount of water usage for indoor and outdoor needs based on local characteristics of the City. Standards are set on an individual basis and on indoor and outdoor use parameters.

Target Outdoor Water Use – This objective targets outdoor water customers and their use by determining the appropriate amount of water to allocate for outdoor needs.

6.3.2 Policy Objective 2 – Funding

Policy Statement: The Utilities Commission/City Council recognize the advantages of increased revenue sufficiency and stability as enabled by incorporating additional funding mechanisms or cost components into the rate structure.

Discussion: This principle highlights the importance of the utility ensuring adequate revenue generation for achieving a self-sustaining utility. Revenues must be adequate to satisfy salaries, operations and



maintenance and new and existing capital needs. Revenue generation should also be predictable to maintain favorable credit ratings (borrowing terms for critical infrastructure).

Advantages of the Policy Objective: The good financial practice of ensuring revenue sufficiency and stability begets additional gains in financial health and better credit ratings which results in lower interest expense associated with borrowing to cover capital infrastructure costs.

Disadvantages of the Policy Objective: While pursuing a rate structure that promotes revenue stability and allows special-project funding is advantageous, setting rates too high may impose too great of a financial burden on users and may encourage the utility to be less fiscally responsible with operating and capital programs. In addition, the public may perceive the need as unnecessary.

Supporting Pricing Objectives:

Revenue Stability – The ability of the rate structure to generate stable and predictable revenues from year to year can be an important consideration, particularly with regard to maintaining a good credit rating for borrowing money to address infrastructure needs, when needed or desired.

Provide Funding Mechanism for Conservation Program – The rate structure should provide a funding mechanism to the conservation program of the City, and in so doing, also determine the allocation of the program’s costs among customers and their associated rates.

6.3.3 Policy Objective 3 –Rate Stability

Policy Statement: The Utilities Commission/City Council recognizes the importance of establishing rates that generate adequate revenues from year to year, regardless of weather or consumption characteristics. Large and unexpected year-to-year rate increases impose financial hardships on customers and may call into question the City's revenue management, fiscal responsibility, and rate equity.

Discussion: Rates are best when predictable over time, which requires a balance between generating sufficient revenue for utility operations, funding capital improvements, and maintaining customer support for required rate adjustments.

Advantages of the Policy Objective: The principle attempts to stabilize the cash flow of the City and improve customer support to rate adjustments through proper revenue management of the City.

Disadvantages of the Policy Objective: It is difficult to define “stable”, as this term has different meanings for different people. Certain customers may construe stable to mean no increases from year to year.



Supporting Pricing Objectives:

Rate Stability – This objective aims to minimize rate increases. Careful capital and financial planning can help ensure rate stability and avoid erratic changes in rates and charges from one year to the next. Also, a steady or consistent program of smaller annual rate adjustments is generally recognized as preferable when compared to significantly larger increases every three or four years. *Note: This objective is not to be confused with Revenue Stability, detailed under Policy Objective 2.*

Mitigate Customer Impact – Any new rate structure may result in different impacts to different customers. This objective recognizes these impacts and aim to minimize them.

Affordability for Essential Use – This objective addresses the importance of maintaining the price of water for essential use – i.e. that which is used for health and safety – at the lowest cost possible while considering the needs of the utility, industry practice, and regulatory conditions.

6.3.4 Policy Objective 4 – Equity

Policy Statement: In compliance with the State Constitution (Article XIII D, commonly referred to as Proposition 218) and governing State Law, rates should be cost-based, fairly apportioned among customers, and account for the substantive provisions of law through a sound, technically defensible methodology.

Discussion: This principle highlights the importance to the Utilities Commission and the City Council of the customer’s perception of fairness and equity, while also recognizing that equity is determined on the basis of water customer classes, rather than each individual customer, due to the unique circumstances affecting each individual customer. Rates should generally be perceived by the City’s customers as fair, reasonable, and equitable for all customers.

Advantages of the Policy Objective: An advantage of this principle is that it reinforces the Utilities Commission and the City Council’s priority of treating all customers fairly. It also underscores the importance of “City-wide” fairness and equity as opposed to appeasing one customer class or stakeholder group. Also, it acknowledges the practical reality that rates cannot be custom tailored to each individual customer.

Disadvantages of the Policy Objective: This principle ultimately does not clearly define the terms “fair and equitable” and will still require the Utilities Commission and the City Council to apply its discretion and judgment.

Supporting Pricing Objectives:



Equitable in Allocating Water Resource Cost – This objective states that a rate structure achieves equity by reflecting the makeup of the demands on the City’s water supply in terms of allocation to each customer class and the price each customer pays for it.

Equitable in allocating CIP Cost – This objective states that a rate structure achieves equity by allocating the cost of capital (infrastructure) to each customer class based on each class’ consumption patterns and peaking characteristics.

Perceived to be Fair to the Public – This objective recognizes the relevance of the public’s perception of how equitable a rate structure is and that managing that perception sometimes calls for informing/educating the public and other stakeholders.

Consistent Residential Rates (SF & MF) – This objective would strive to have similar rate structures for all residential customer types – both single-family (SF) and multi-family (MF), if administratively possible.

Based on Individual Needs – This objective would strive to have tier allocations based on individual household characteristics.

Single Rate for Potable Customer Class – This objective prioritizes creating one rate structure that applies to all potable customer classes.

6.3.5 Policy Objective 5 –Administration

Policy Statement: The Utilities Commission/City Council recognizes the advantages of providing a rate structure that is easily understood by the City’s customers and can easily be implemented and administered by staff with the current billing software, in order to maintain costs at current levels.

Discussion: This principle highlights the importance of keeping rate structures and the process of administering them as simple as practicable. Customer education and clarity of customer bills should be considered as part of this principle.

Advantages of the Policy Objective: Creating rates that are easy for customers to understand will minimize rate-related customer service issues. If customers understand the basis of their bills, they will have a greater ability to comprehend their billing, how usage will affect their bill, and conclude that it is fair.

Disadvantage of the Policy Objective: Simplifying the rate structure does not always provide a maximum degree of fairness and equity. However, from the customer perspective, rates that are simple to understand may be more important than creating a complicated rate structure that achieves a higher degree of equity.



Supporting Pricing Objectives:

Customer Understanding – The ability for the rate structure to be explained in a manner that can be understood by customers and other stakeholders can have important impacts on the ability to build acceptance of rate adjustments.

Ease-of-Implementation – Implementing a new rate structure merits careful consideration, as rate structure implementation may require upfront (one-time) costs for data gathering or billing system changes.

Ease-of-Administration – An easy-to-administer rate structure decreases the ongoing costs of administering the structure, made up predominantly of additional staffing costs.

Scientific Method – This objective would strive to have a data driven rate structure based on scientific metrics of usage allocation.

6.4 Results and Evaluated Water Rate Structure Options

Each member of the Utilities Commission and City Council was requested to rank each pricing objective with the following score criteria:

1. Most critical = 1
2. Critical = 2
3. Important = 3
4. Least Important = 4



Table 6-13 summarizes the pricing objectives by taking the average score of each objective assigned by elected officials as shown in Appendix 13 (based on 1 being the most critical and 4 being the least important) and then ranking them in order of importance.

Table 6-13: Pricing Objective Rankings

Importance Ranking	Pricing Objectives	Average Score
1	Revenue Stability	1.29
2	Perceived to be Fair to the Public	1.29
3	Affordability for Essential Use	1.57
4	Rate Stability	1.71
5	Equitable in Allocating Water Resource Cost	1.80
6	Customer Understanding	1.86
7	Promotes Conservation	2.00
8	Promotes Efficiency	2.14
9	Mitigate Customer Impact	2.43
10	Target Outdoor Water Use	2.50
11	Scientific Method	2.50
12	Equitable in Allocating CIP Cost	2.67
13	Consistent Residential Rates (SFR vs. MFR)	2.83
14	Provide Funding Mechanism for Conservation Program	3.00
15	Ease of Implementation	3.00
16	Ease of Administration	3.14
17	Based On Individual Needs	3.29
18	Single Rate for Potable Customer Class	3.33

Based on the pricing objective rankings shown in Table 6-13 and direction from City Council, RFC identified four water rate design options to be evaluated for the Study.

1. Revised Water Budget with 25% of fixed costs recovered through fixed service charges, and 75% of fixed costs recovered through volumetric rates (**Revised Water Budget**)
2. Revised Water Budget with 100% of fixed costs recovered through fixed service charges (**Water Budget with 100% Fixed**)
3. Uniform water rate with 25% of fixed costs recovered through fixed service charges , and 75% of fixed costs recovered through volumetric rates (**Uniform**)
4. Uniform water rate with 100% of fixed costs recovered through service charges (**Uniform with 100% Fixed**)



RFC then assessed ability of each rate structure in meeting each of the eight most important pricing objectives³⁶ as identified by elected officials. The total score of each rate structure (sum of the product of average score of each pricing objective and score of each rate structure in meeting the corresponding pricing objective) is shown in Table 6-14. All four water rate design options were evaluated and presented during the Rate Design Workshop on March 6, 2014, with City Council and Utilities Commission. Based on the City Council’s direction received on March 18, 2014, the City proceeded with Option 1 (Revised Water Budget with 25 percent of fixed costs recovered through service charges) for the Proposition 218 notice and report development. In Table 6-14, 17.95 for **Revised Water Budget** represents the highest ranked rate structure (based on 1 being the highest score and 4 the lowest). Please refer to Appendix 2 for all four evaluated water rate structures as presented during the March 6, 2014, Rate Design Workshop.

Table 6-14: Water Rate Structure Design Options and Pricing Objectives

Pricing Objectives	Average Score	Revised Water Budget	Water Budget with 100% fixed	Uniform	Uniform with 100% Fixed
Revenue Stability	1.29	3	1	2	1
Perceived to be Fair to the Public	1.29	1	2	3	4
Affordability for Essential Use	1.57	1	3	2	4
Rate Stability	1.71	2	1	2	1
Equitable in Allocating Water Resource Cost	1.80	1	1	4	4
Customer Understanding	1.86	1	3	1	2
Promotes Conservation	2.00	1	4	3	4
Promotes Efficiency	2.14	1	2	3	4
Total		17.95	29.95	34.49	41.92

6.5 Cost of Service Analysis and Water Rate Design

6.5.1 Revision of Current Water Rate Structure

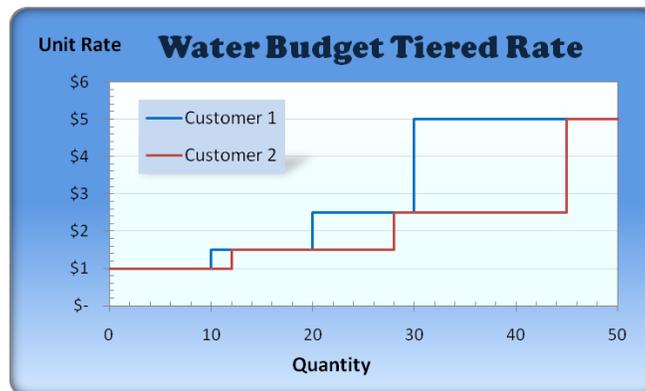
The City implemented a water budget rate structure in 1991 to incentivize conservation and efficient use of water as a tool for water resource management during the severe drought in the 1990s. The American Water Works Association Journal defines a water budget as “the quantity of water required for an efficient level of water use by that customer” (Source: American Water Works Association

³⁶ The average scores range from 1.29 to 3.33, and all pricing objectives with average scores less than 2.3 (the middle point) would be considered more significant than others.



Journal, May 2008, Volume 100, Number 5). Theoretically, each customer may have their own allocation or water budget as illustrated generically in Figure 6-5.

Figure 6-5: Water Budget Tiered Rate Illustration



6.5.1.1 Revision of Outdoor Water Budget Factors

The outdoor water budget (OWB) is determined based on three main variables: irrigable landscape area, weather data and an ET Adjustment Factor. The irrigable landscape area is measured as square footage of a customer’s property. The weather data is based on the Reference EvapoTranspiration (ET_0), which is the amount of water loss to the atmosphere over a given time period at specific atmospheric conditions. ET_0 is the amount of water (in inches of water) needed for 4”-7” tall well-watered cool season turfgrass to maintain its health and appearance. The ET Adjustment Factor (ETAF) is a coefficient that adjusts ET_0 values based on a plant factor (PF) and irrigation efficiency (IE). The following is the formula for the OWB:

$$OWB = \frac{(ET_0 * Kc - ER) * ETAF * Landscape Area * Drought Factor}{1200}$$

Where:

- ET_0 is measured in inches of water required during the billing period based on daily data, currently acquired from the California Irrigation Management Information System (“CIMIS”) Station 75, which is the closest CIMIS station to the City’s service area (the City may return to using its own weather station again when access to the data is reestablished);



- K_c, crop coefficient that relates ET₀ to turfgrass (cool season) with ET₀ based on University of California Riverside turf grass research³⁷ to set more accurate monthly adjustment factors for the seasonality of the growing cycles of plants;
- ER is the effective monthly rain – the lesser of the potential EvapoTranspiration (ET_p = ET₀*K_c) or 30 % of the measured rainfall (considered usable for irrigation);
- ETAF is a State-legislated efficiency standard in the form of a coefficient that adjusts the outdoor water budget value based on the crop types and irrigation efficiency:
 - ETAF for landscape / Ag / City Farm = 70%
 - ETAF for residential classes, except large lot = 70%
 - 3 ETAFs for large lot residential accounts
 - 0 – standard landscape area³⁸ = 70%
 - Standard area up to 21,780 square feet = 50%
 - Area above 21,780 square feet = 30%;
- Landscape Area, also referred to as Irrigated Landscape Area (in square feet, sq. ft.), is the measured irrigable landscape area served by a specific water meter. Currently, for residential customer classes, the following methods are used to estimate landscape area for each parcel:
 - Regular lot (less than 7,000 sq. ft.) (rate code WCA) is assigned standard landscape area
 - Large lot (larger than 7,000 sq. ft.) (rate code WCB): Lot Size minus 2 times the building area
 - Multi-family with own irrigation (rate code WCD) is also assigned a standard landscape area
 - Multi-family without irrigation (rate codes WCN & WCE): no assigned landscape area
 - Master metered residential: actual irrigable landscape areas are provided by corresponding customers
- Drought Factor is the percentage of outdoor water budget allotted during drought conditions. The drought factor is subject to the approval of the City Council at different drought stages. The outdoor drought factor is currently set at 100%.
- 1,200 is the factor to convert the allocation into normal water billing units, 100 cubic feet or 1 ccf which equates to 748 gallons.

After reviewing the current rate structure and conducting usage analysis, RFC recommended the following changes for outdoor water budget factors:

- ❖ The current standard landscape area of 3,636 sq. ft. is more than 50 percent of a lot size of 7,000 sq. ft. Empirical analyses conducted by other agencies have concluded that irrigable

³⁷ J. Meyer and V. Gibeault, *Turfgrass Performance Under Reduced Irrigation*, California Agriculture July-August 1986, Table 3 - K_c for cool season grasses (see Appendix 6)

³⁸ Current standard landscape area = 3,636 sq ft; proposed is 2,700 sq ft.



landscape area is approximately 30 to 35 percent of lot size only. An analysis³⁹ of actual irrigated area for single family lots 7,000 sq. ft. and smaller has determined that the irrigated area is smaller than what was previously assumed before computer analysis was available, and the standard landscape area for regular lots (rate code WCA) will be reduced from 3,636 sq. ft. to 2,700 sq. ft. for the purpose of calculating monthly allocations. This 936 sq. ft. difference will result in a slightly smaller outdoor allocation in the warmest months, ranging from no difference in the winter up to an estimated 4 ccf in the hottest summer months, depending on the actual weather.

- ❖ Large lots (rate code WCB)– those over 7,000 sq. ft. with irrigated area defined as lot size minus 2 times the building area – will receive the same outdoor allocation as described above for the first 2,700 sq. ft., with the allocation calculation currently in place remaining unchanged for the balance of the acreage.
- ❖ Multi-family accounts with irrigation (rate code WCD) will have 500 sq. ft. of irrigated area per dwelling unit assigned to each account, which more accurately reflects the actual site characteristics.
- ❖ Multi-family accounts without irrigation (rate codes WCE and WCN) will have 100 sq. ft. of irrigated area per dwelling unit assigned to each account to provide watering need for potential balcony plantings.

Other recommendations:

- ❖ Commercial accounts will have a water budget allocation based on the previous winter's use (bills with meter reads in January to March) to establish a new efficiency benchmark for this customer classification.
- ❖ The City has two sources of water, local water treated at Groundwater Recovery Plant (GWRP) and more expensive treated water imported from Municipal Water District of Orange County (MWDOC). As directed by the City's attorney and City staff, all customer classes except firelines and construction are allocated 220 gallons per day (an average of 9 ccf per 30 days billing month) of lowest cost water from the GWRP for essential use. The first tier will also include revenue offsets from property tax revenues. Based on guidelines provided in the Senate Bill x7-7 (SB x7-7) for efficient indoor use of 55 gallons per capita per day, 220 gallons per day is sufficient indoor water use for a family of four.

³⁹ Analysis was conducted by the City's GIS and water conservation staff.

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Table 6-15 summarizes the revised outdoor water budget factors discussed above

Table 6-15: Revised Outdoor Water Budget Factors

	SFR	MFR	Irrigation
Rate codes	WCA, WCB	WCC, WCD, WCE & WCN	WCF, WCG & WCM
Outdoor Water Budget Factors			
Landscape Area	WCA: 2,700 sq ft WCB: Lot size – 2*building size	WCC: as measured WCD: 500 sq ft / unit WCE: 100 sq ft / unit WCN: 100 sq ft / unit	As measured
EvapoTranspiration Adjustment Factors (ETAF)	0 – 2,700 sq ft: 70% 2,701 – 21,780: 50% Above 21,780 sq ft: 30%	70%	70%

6.5.1.2 Revision of Tier Definitions

Table 6-16 summarizes the revised tier definitions. See Appendix 9 for detailed tier definitions.

Table 6-16: Revision of Tier Definitions

Tiers	Current Definitions	Proposed Tiers	Proposed Definitions	
Base Rate	Essential Use Portion of Indoor Use	Tier 1 – Essential Use	9 ccf (1 ccf = 748 gallons)	
Tier I	Within 100% Allocation Remaining Indoor + Outdoor Use	Tier 2 – Efficient Use	Non-Commercial: Outdoor Use Commercial: Winter Average Use	
Tier II	Up to 200% of Allocation	Tier 3 – Inefficient Use	Tier 1 + Tier 2	
Tier III	Above 200% of Allocation	Tier 4 – Excessive Use	Above Tier 3	
Propose Tiers	SFR	MFR	Irrigation	Commercial
Tier 1 Essential Use	9 ccf / month	9 ccf / month	9 ccf / month	9 ccf / month
Tier 2 Efficient Use	Outdoor use	Outdoor use	Outdoor use	Winter average
Tier 3 Inefficient Use	100% of Tiers 1 & 2	100% of Tiers 1 & 2	100% of Tiers 1 & 2	100% of Tiers 1 & 2
Tier 4 Excessive Use	Above Tier 3	Above Tier 3	Above Tier 3	Above Tier 3



Figure 6-6 shows the impact of the recommended revisions to tier definitions for the residential customer class.⁴⁰ Under the current tier definitions, 88 percent (40 plus 48 percent) of usage falls under efficient use, and 40 percent of that is for “base” indoor use. With the increase of the essential-use allocation to 9 ccf, 83 percent (54 plus 29 percent) fall under efficient use, and 54 percent of that is for essential use.

Figure 6-6: Residential Usage Distribution in Tiers Comparison for Current and Proposed Structures

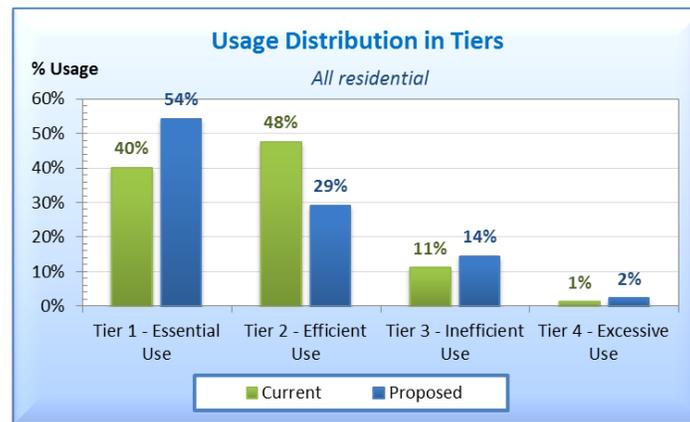


Figure 6-7 shows the impact of the recommended revisions to tier definitions for irrigation customers.⁴¹ Under the current tier definitions, 92 percent (92 plus 0 percent) of usage falls under efficient use, and 0 percent of that is for essential use⁴². With the increase of the essential-use allocation to 9 ccf, 84 percent (76 plus 8 percent) falls under efficient use, and 8 percent of that is for essential use. The shift from 92 to 84 percent is mainly due to the fact that the City Farm is currently billed a uniform rate of \$4.24 for all levels of usage and the Study recommends having the City Farm under a water budget rate structure to be consistent with other landscape accounts.

⁴⁰ Residential includes the single-family and multi-family classifications.

⁴¹ Irrigation includes landscape, agriculture, and city farm classifications.

⁴² Currently, landscape accounts do not have indoor allocations and thus no base rate use.



Figure 6-7: Landscape Usage Distribution in Tiers Comparison for Current and Proposed Structures

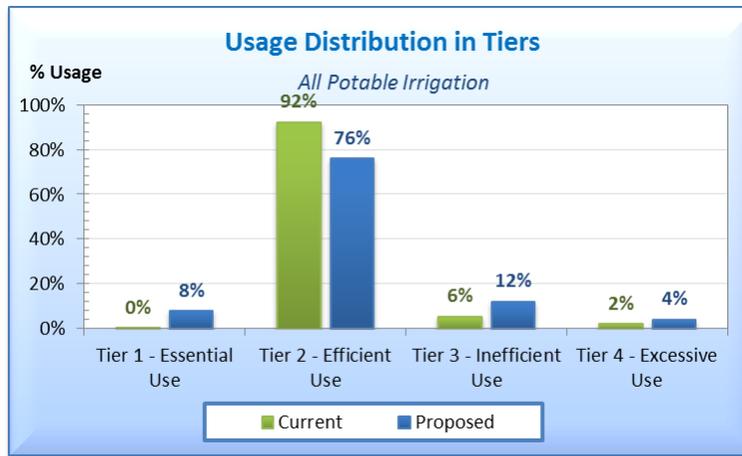
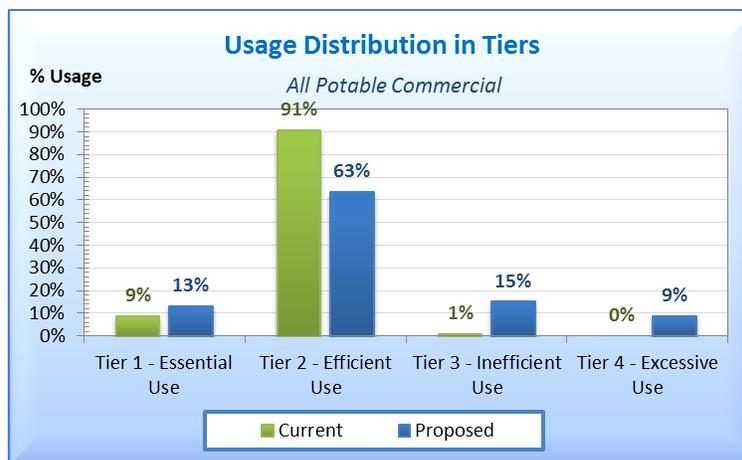


Figure 6-8 shows the impact of the recommended revisions to tier definitions for commercial customers. For the commercial class, the Tier 2 allocation changes to be based on average winter use (average water consumption of bills with meter reads in January through March of prior year). Under the current tier definitions, almost 100 percent (91 plus 9 percent) of usage falls under efficient use, and 9 percent of that is for essential use. With the increase of the base allocation to 9 ccf, 76 percent (63 plus 13 percent) falls under efficient use, 13 percent of which is for essential use.

Figure 6-8: Commercial Usage Distribution in Tiers Comparison for Current and Proposed Structures



6.5.2 Cost of Service Analysis

Proposition 218 requires a nexus between the rates charged and the costs of providing service. Based on the forecasted financial plan, the cost of service analysis translates this financial requirement into

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actual rates. The first step in the cost of service analysis is to determine how much revenue is required to be collected from rates. The methodology used is based upon the premise that the utility must generate annual revenues adequate to meet its estimated annual expenses. As part of the cost of service analysis, several adjustments are made to the appropriate cost elements to ensure adequate collection of revenue by determining the annual revenues needed from rates: revenues from sources other than water rates and charges (e.g. revenues from miscellaneous services) are deducted. Table 6-17 shows the total revenues forecasted to be required from water rates in FY 2015.

Table 6-17: Water Revenue Requirements

	FY 2015
Revenue Requirements	
O&M Expenses	\$13,928,867
Debt Service	\$2,881,649
CIP Funding	\$324,444
Reserve Funding	\$1,688,657
Total Revenue Requirements	\$18,823,617
Less Miscellaneous Revenues	
Fund 60 (Misc. Revenues)	-\$192,210
Fund 61 (Property Tax)	-\$894,860
Fund 62 (MWD Grants)	-\$1,046,870
Total Revenue Requirements from Rates	\$16,686,677

The second step in the cost of service analysis is to functionalize the revenue requirement into cost components. This analysis employs the “Base-Extra Capacity” method, under which water utility costs of service are assigned to basic functional cost components including: water supply costs; base costs (fixed costs incurred to meet average demand); extra capacity or peaking costs (fixed water system costs to meet maximum day and maximum hour, or peaking, demand); and conservation, meter service and customer-service related costs as described in the M1 Manual, Principles of Water Rates, Fees, and Charges (M1 Manual), published by the American Water Works Association (AWWA). The Base-Extra Capacity method is widely used in the water industry to serve retail customers. The revenue to be recovered from rates of \$16.7 million is allocated according to the categories in Table 6-18. For further detail please see Appendix 4, which shows the step-by-step allocations.

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Table 6-18: Water Allocated Costs

	FY 2015
Variable Water Supply Costs	\$5,074,960
Base	\$6,909,491
Peaking	\$3,714,061
Customer Service	\$627,683
Meter Service	\$755,249
Conservation	\$287,004
Private Fire	\$213,089
Revenue Offsets	-\$894,860
Total Revenue Requirements from Rates	\$16,686,677

Table 6-19 breaks out the FY 2015 \$5.1 million of variable water supply costs shown in the previous table.

Table 6-19: Variable Water Supply Cost Component

	FY 2015
Fund 62 Operations & Maintenance Expenses ⁴³	\$3,281,199
Less Metropolitan Water District Grant	-\$1,046,870
Subtotal Groundwater Recovery Plant Water Supply Cost	\$2,234,329
MWDOC Variable Cost (\$907.55 / AF * 3,130 AF)	\$2,840,631
Total Variable Water Supply Cost	\$5,074,960

⁴³ From Table 6-7

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In this Study, RFC evaluated four water rate structure options that meet the City’s pricing objectives (see Section 6-4) and presented the results for all four rate options to the City Council during the March 6, 2014, and March 18, 2014, workshops. The City Council provided definitive direction on a selected water rate structure during the March 18, 2014, City Council workshop. Presented in this Report is the rate design option that was selected by the City Council - **Revised Water Budget**. Please refer to Appendix 2 for other water rate structure options presented during the March 2014 workshops.

Table 6-20 represents the re-allocation of the \$16.7 million revenue requirement by cost category (Table 6-18) by water cost component. 25 percent of peaking cost is assigned to the capacity cost component, which ultimately applies to monthly service charges to pay for fixed water system costs. 25 percent of base cost is also applied to monthly service charges to pay for fixed water system costs along with meter service and customer service costs. The remaining water system costs, including 75 percent of peaking costs, 75 percent of base cost and conservation costs shown in Table 6-20, are recovered through the delivery cost component. California Urban Water Conservation Council (CUWCC) Best Management Practice (BMP) 1.4 provides guidelines for retail conservation pricing to encourage efficient use of water. One of the requirements of BMP 1.4 is to set the volume of water sales revenue at 70 percent or more of the total water sales revenues. The rate structure ***“Revised Water Budget 25% of fixed costs recovered through fixed service charges, and 75% of fixed costs recovered through volumetric rates”*** selected by the City Council during the March 18, 2014, workshop complies with the CUWCC BMP 1.4 requirement described above.

Table 6-20: Allocated Water Cost Components

	FY 2015
Variable Water Supply	\$5,074,960
Delivery (Remaining water system costs)	\$8,254,668
Revenue Offsets	-\$894,860
Customer Service	\$627,683
Meter Service (Meter service + 25% base cost)	\$2,482,622
Capacity (25% peaking cost)	\$928,515
Private Fire	\$213,089
Total	\$16,686,677

The water cost components are further broken into those for monthly service charges (Table 6-21) and volumetric rate components (Table 6-22) for the selected water rate structure option.



6.5.2.1 Monthly Service Charges

Costs related to meter reading, billing and collecting is distributed among customers based on the total number of bills rendered in a test year, which is FY 2015 for this Study. Meter service costs are distributed to customers in proportion to estimated costs for meters and services installed. Capacity costs are distributed in proportion to meter demand capacity as provided by AWWA M1. According to the AWWA M1 Manual, distribution of meter service costs and capacity costs by equivalent meter and service ratios recognizes that meter and service costs vary, depending on considerations such as size of service pipe, materials used, locations of meters and other local characteristics for various size meters as compared to 5/8-in meters and services.

Monthly service charge components include: customer service – uniform for all accounts; meter service – maintenance and capital costs related to meters and inclusive of a portion of delivery-related fixed costs, proportionate to meter cost ratios; and capacity – a portion of peaking cost increasing by meter capacity ratios. The unit rate for each component, including private fire, is shown below in Table 6-21.

Table 6-21: Components for Monthly Service Charges and Private Fire Service Charges

	FY 2015	Unit of Service	Unit Rate
Customer Service	\$627,683	135,540 Bills	\$4.64
Meter Service (Meter service + 25% base cost)	\$2,482,622	173,845 Equiv cost meters	\$14.29
Capacity (25% peaking cost)	\$928,515	298,218 Equiv capacity meters	\$3.12
Private Fire	\$213,089	272 Equiv 6" fireline services	\$65.19



6.5.2.2 Water Volumetric Rate Components

In meeting the Proposition 218 requirements, RFC conducted a cost of service analysis and identified three different rate components for the water volumetric rates, including Water Supply, Delivery and Revenue Offsets. Each of the rate components is described in Table 6-22, below.

Table 6-22: Descriptions of Proposed Water Volumetric Rate Components

Water Quantity Charge Components	Description
Water Supply	To recover water supply costs using the following supply allocation: <ol style="list-style-type: none"> 1. Tier 1 is supplied by Groundwater Recovery Plant (GWRP), which is the least costly water supply available to the City. 2. Tier 2 is supplied by the remaining available groundwater and the balance is supplied with imported water from Municipal Water District of Orange County (MWDOC) 3. Tier 3 is supplied by imported water from MWDOC 4. Tier 4 is supplied by imported water from MWDOC
Delivery	To recover the City’s remaining fixed costs to operate and maintain the water system
Revenue Offsets	To provide affordability for essential usage, property tax revenues are dedicated to offset Tier 1 revenue requirements

The unit water supply costs for the variable water supply cost components introduced earlier in Table 6-19 are summarized in Table 6-23 (\$1.35/ccf for GWRP expenses to supply local groundwater⁴⁴) and Table 6-24 (\$2.30/ccf for purchase of MWDOC imported water supply).⁴⁵ The usage in each tier is met by using the lowest cost water supply from GWRP for essential and efficient use before using higher cost water supply imported from MWDOC (Table 6-25). It is projected that essential use demand will be met by lowest cost water supply from GWRP and efficient-use demand will be met through a combination of GWRP and MWDOC supply, at a unit cost of \$1.90 / ccf. Inefficient use and excessive use are met 100 percent by imported water supply from MWDOC at \$2.30 / ccf (including 10% water loss).

⁴⁴ Fund 62 O&M expenses, net of the City’s MWD grant

⁴⁵ Inclusive of 10% water-loss factor

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Table 6-23: Groundwater Recovery Plant Water Supply Rate

	FY 2015
Fund 62 – GWRP Operations & Maintenance Expenses ⁴⁶	\$3,281,199
Less MWD Grant	-\$1,046,870
Subtotal GWRP Water Supply Cost	\$2,234,329
Estimated Quantity Produced	4,187 AF 1,823,857 ccf
Unit GWRP Water Supply Cost	\$533.63 / AF \$1.23 / ccf
Unit GWRP Water Supply Rate (with 10% water loss)	\$588.06 / AF \$1.35 / ccf

Table 6-24: MWDOC Water Supply Rate

	FY 2015
Average MWDOC Unit Cost for FY 2015 ⁴⁷	\$907.55 / AF
Estimated Quantity Purchased	3,130 AF
Subtotal MWDOC Variable Cost	\$2,840,631
Unit MWDOC Water Supply Cost	\$2.08 / ccf
Unit MWDOC Water Supply Rate (with 10% water loss)	\$2.30 / ccf

Table 6-25: Variable Water Rate Component

	Projected Usage	Production (with 10% loss)	GWRP (local groundwater)	MWDOC (purchased imported water)	Unit Rate \$ / ccf (w/ loss)
Tier 1 – Essential Use	1,127,348	1,240,083	1,240,083	0	\$1.35
Tier 2 – Efficient Use	1,257,592	1,383,351	583,774	799,577	\$1.90⁴⁸
Tier 3 – Inefficient Use	417,409	459,150	0	459,150	\$2.30
Tier 4 – Excessive Use	95,393	104,932	0	104,932	\$2.30
Total	2,897,742	3,187,516	1,823,857	1,363,659	

⁴⁶ From Table 6-6 and 6-7

⁴⁷ From Table 6-6

⁴⁸ Tier 2 Unit Rate = $(583,774 * \$1.35 + 799,577 * \$2.30) / 1,383,351 = \$1.90 / ccf$

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The unit costs/offsets for the remaining volumetric rate cost components – delivery costs and revenue offsets are shown in Table 6-26.

Table 6-26: Other Water Rate Components

	FY 2015	Unit of Service	Unit Rate
Delivery (Remaining water system costs)	\$8,254,668	2,897,742 Total projected usage	\$2.85 / ccf
Revenue Offsets	-\$894,860	1,127,348 Tier 1 Usage	-\$0.79 / ccf

6.5.3 Proposed Water Rates

The water utility’s proposed monthly service charges and volumetric rates are based on revenue requirements as forecasted through the financial plan selected by the City Council, detailed in Section 6.3.

6.5.3.1 Monthly Service Charges

The monthly service charges proposed for FY 2015 in Table 6-27 are built up by adding up the monthly service charge components – customer service, meter service, and capacity – in Table 6-21 above. Charges for different meters are developed according to their corresponding meter ratios. Proposed six-year monthly service charges are summarized in Table 6-28.

Table 6-27: Proposed FY 2015 Monthly Service Charges

	# of Accts	Customer Service	Meter Service	Capacity	Proposed	Current
5/8"	6,784	\$4.64	\$14.29	\$3.12	\$22.05	\$19.66
1"	2,993	\$4.64	\$18.30	\$7.80	\$30.74	\$29.50
1 1/2"	567	\$4.64	\$23.44	\$15.60	\$43.68	\$44.24
2"	699	\$4.64	\$37.73	\$24.96	\$67.33	\$61.87
3"	9	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22
4"	20	\$4.64	\$181.92	\$98.28	\$284.84	\$164.19
6"	8	\$4.64	\$272.94	\$218.40	\$495.98	\$314.62
8"	1	\$4.64	\$467.90	\$374.40	\$846.94	\$496.50
Fireline 6"	87			\$65.19	\$65.19	\$88.49
Fireline 8"	87			\$138.92	\$138.92	\$88.49
Construction	39	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22

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Table 6-28: Proposed Monthly Service Charges⁴⁹

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19
5/8"	\$22.05	\$23.16	\$24.32	\$25.54	\$26.82	\$28.17
1"	\$30.74	\$32.28	\$33.90	\$35.60	\$37.38	\$39.25
1 1/2"	\$43.68	\$45.87	\$48.17	\$50.58	\$53.11	\$55.77
2"	\$67.33	\$70.70	\$74.24	\$77.96	\$81.86	\$85.96
3"	\$202.14	\$212.25	\$222.87	\$234.02	\$245.73	\$258.02
4"	\$284.84	\$299.09	\$314.05	\$329.76	\$346.25	\$363.57
6"	\$495.98	\$520.78	\$546.82	\$574.17	\$602.88	\$633.03
8"	\$846.94	\$889.29	\$933.76	\$980.45	\$1,029.48	\$1,080.96
Fireline 6"	\$65.19	\$68.45	\$71.88	\$75.48	\$79.26	\$83.23
Fireline 8"	\$138.92	\$145.87	\$153.17	\$160.83	\$168.88	\$177.33
Construction	\$202.14	\$212.25	\$222.87	\$234.02	\$245.73	\$258.02

6.5.3.2 Water Volumetric Rates

Table 6-29 shows the water volumetric rates proposed for FY 2015, and represents a summary of Table 6-25 and Table 6-26. The volumetric rates are built up through the addition of water supply, delivery costs and revenue offsets. Table 6-30 summarizes the proposed six-year water volumetric rates. Refer to Section 6.5.1 for tier definitions and water budget allocations for each customer classification.

Table 6-29: Proposed FY 2015 Water Volumetric Rates

Water Rates	Water Supply	Delivery	Revenue Offsets	Proposed	Current
Tier 1 - Essential Use	\$1.35	\$2.85	-\$0.79	\$3.41 / ccf	\$3.18
Tier 2 - Efficient Use	\$1.90	\$2.85	\$0.00	\$4.75 / ccf	\$4.24
Tier 3 - Inefficient Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf	\$6.37
Tier 4 - Excessive Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf	\$11.67

⁴⁹ Six years of rates are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved rates (through FY 2019) from City Council.



Table 6-30: Proposed Water Volumetric Rates⁵⁰

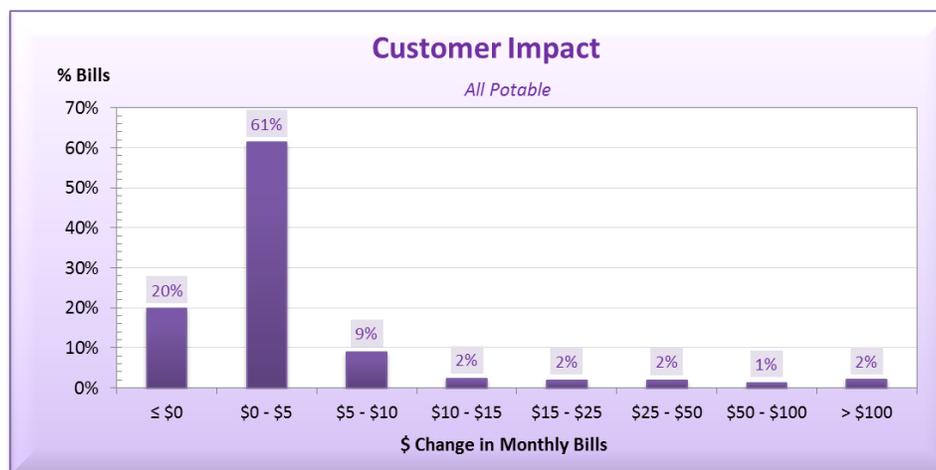
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19
Tier 1 – Essential Use	\$3.41 / ccf	\$3.59	\$3.77	\$3.96	\$4.16	\$4.37
Tier 2 – Efficient Use	\$4.75 / ccf	\$4.99	\$5.24	\$5.51	\$5.79	\$6.08
Tier 3 – Inefficient Use	\$5.15 / ccf	\$5.41	\$5.69	\$5.98	\$6.28	\$6.60
Tier 4 – Excessive Use	\$5.15 / ccf	\$5.41	\$5.69	\$5.98	\$6.28	\$6.60

6.6 Water Customer Impact Analysis

6.6.1 Customer Impact Analysis

To assist the City’s policymakers in making informed decisions, RFC has prepared an analysis to examine the impacts of the proposed rates. The following customer impacts chart shown in Figure 6-9 displays the bill impacts for all potable water customers, accounting for the forecasted revenue adjustment of 5 percent and the proposed changes to the revised water rate structure. 20 percent of the water utility’s bills have a reduction or no change, and 61 percent have increases of less than \$5 on their monthly bills. Around 5 percent (2 + 1 + 2) of the bills will see increases larger than \$25 in their monthly bills.

Figure 6-9: Customer Impact Analysis for Proposed Water Rates



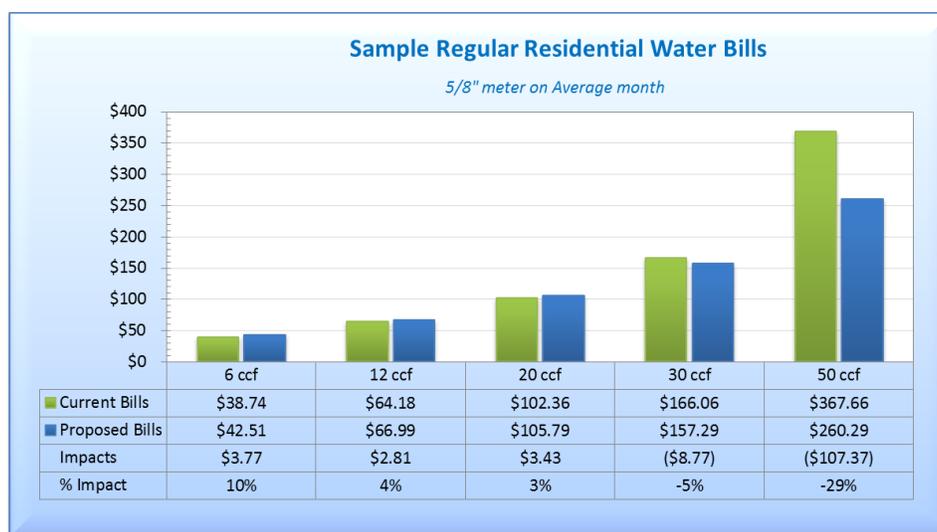
⁵⁰ Six years of rates are shown to reflect the study period which goes through FY 2020. The City will seek five years of approved rates (through FY 2019) from City Council.



6.6.2 Sample Regular Residential Bills (Water Only)

Figure 6-10 compares current versus proposed bills under different usage levels and shows that current bills (green) are outpaced by proposed bills (blue) for a typical regular lot residential customer with a 5/8 inch meter.⁵¹ Also note that 6 ccf is the current base-rate allocation, 12 ccf is the average monthly usage for the City’s residential customers, and 20 ccf represents a standard benchmark of comparison across agencies within Orange County.

Figure 6-10: Sample Water Bills for Regular Residential Customer with 5/8” Meter in Average Month



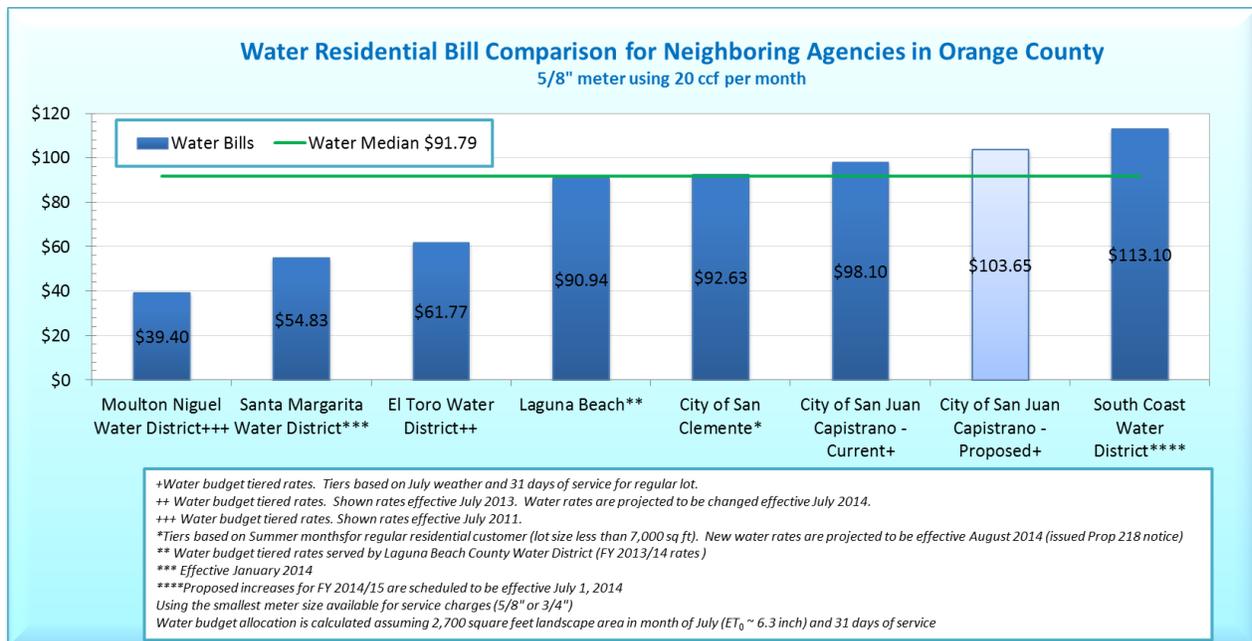
⁵¹ Note that sample water bills are shown for SFR because it is the largest class and exhibits homogenous usage that provides usage patterns for comparison. Sample bills for other classes such as commercial would be based on more varied usage that would be difficult to derive meaningful patterns from.



6.6.3 Residential Water Bill Comparison for Neighboring Communities in Orange County

RFC conducted a rate survey for six neighboring communities. The estimated monthly water bills are shown in Figure 6-11. The City’s water bill under proposed rates is marked in light blue. Rate surveys can provide insights into a utility’s pricing policies related to service. However, care should be taken in drawing conclusions from such comparisons as some factors including property tax, varying rate implementation dates, geographic location, demand, customer constituency, level of treatment, level of grant funding, age of system, sources of water costs, and rate-setting methodology can affect the cost of providing services and rates. The rate surveys incorporate the latest rates adopted by each agency; they vary from FY 2013 to FY 2015 (depending on the particular agency). For all surveys completed, billing on a monthly cycle was considered, and a regular residential customer with a 5/8” meter (or 3/4” meter as the smallest meter size available) and an average monthly consumption of 20 hundred cubic feet (ccf) were assumed. It should be noted that Moulton Niguel Water District and Santa Margarita Water District receive significant amount of property tax, which keeps water rates lower by offsetting the cost of providing water service.

Figure 6-11: Water Bill Comparison for Residential Customer with 5/8” Meter in Summer Month





7 Non-Potable Water Utility – Financial Plan and Rates

7.1 Revenue Requirements

Reviewing the revenue requirements for the non-potable water utility is similar to the review of revenue requirements for the Water and Sewer Utilities, involving an analysis of annual operating revenues under the current rates, operation and maintenance (O&M) expenses, capital expenditures, and reserve requirements. This section of the report provides a discussion of the projected revenues, O&M and capital expenditures, capital improvement financing plan and revenue adjustments estimated as required to ensure the fiscal sustainability and solvency of the non-potable utility.

Currently, potable, non-potable and recycled water revenues and expenses are included in Water Utility Funds (Funds 60, 61, 62, 63, 64 and 65). In light of recent legal challenges regarding the comingling of Recycled Water program costs with the cost of providing potable water service, RFC recommends that the City group all revenues and expenses associated with non-potable and recycled water into an independent Non-Potable Utility Fund in FY 2015.

7.1.1 Revenues from Current Rates

RW and non-potable volumetric usages are currently assessed on a three-tier budget-based system without a base rate, as shown in Table 7-1.

Table 7-1: Non-Potable Water Usage

	Current Tiers	FY 2015	FY 2014 Current Rates
Base Rate	0	0	\$2.68
Tier I	100% OWB	302,472 ccf	\$3.57
Tier II	up to 200% OWB	16,153 ccf	\$5.36
Tier III	Above Tier 2	4,709 ccf	\$9.83
Total Consumption		323,334 ccf	

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Table 7-2 provides a summary of projected service and commodity-based revenues for the non-potable utility. Note that revenue projections hold constant for the study period based on the assumption of no growth in accounts or flows.

Table 7-2: Non-Potable Water Revenues from Current Rates⁵²

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Service Charges	\$2,359	\$47,829	\$47,829	\$47,829	\$47,829	\$47,829	\$47,829
Commodity Charges	\$100,030	\$1,212,695	\$1,212,695	\$1,212,695	\$1,212,695	\$1,212,695	\$1,212,695
Total	\$102,389	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524

7.1.2 O&M Expenses

O&M expenses include the costs of operating and maintaining the non-potable utility’s wells, reservoirs, and other costs such as administrative overhead. The City’s FY 2014 budget values and the assumed inflation factors for the study period were used as the basis for projecting O&M costs⁵³. Table 7-3 summarizes budgeted and projected O&M expenses for the Non-Potable Fund. The O&M expenses are projected to increase an average of approximately 3 percent per year. See Appendix 5 O&M detail.

Table 7-3: Non-Potable Water Operations & Maintenance Expenses

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Non-Potable Water	\$73,030	\$451,048	\$439,610	\$469,793	\$469,782	\$486,059	\$502,866
% Change			-2.5%	6.9%	0.0%	3.5%	3.5%

⁵² Non-potable Revenues and Expenses are grouped with RW starting FY 2015; this includes 345AF of potable water that was used to augment the non-potable system and will be converted to RW and supplied by RW imported from the combination of supply from SMWD and MNWD.

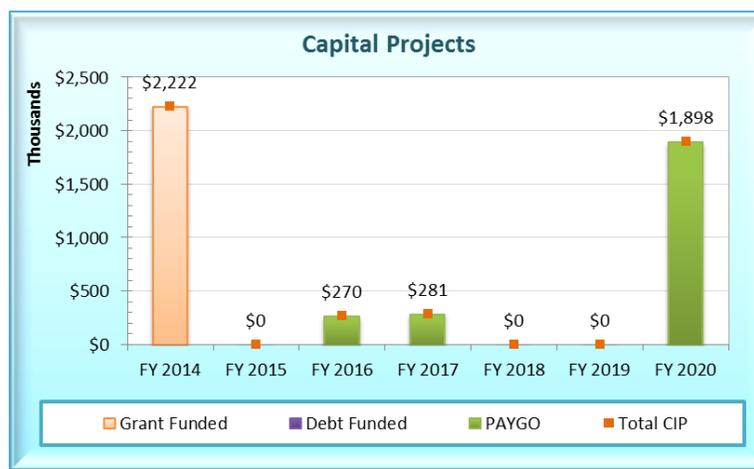
⁵³ RFC worked closely with City staff to identify non-recurring costs and other anticipated expenses



7.1.3 Capital R&R Expenditures

The City has adopted a seven-year CIP through FY 2020 to address future utility needs. The CIP and R&R in Figure 7-1 is expected to be funded both through grant funding and on a pay-as-you-go (PAYGO) basis, and represents the costs of CIP adjusted for construction inflation.⁵⁴

Figure 7-1: Projected Capital Projects for Non-Potable Water Utility



7.1.4 Non-Potable Water Financial Plan

Table 7-4 displays the non-potable utility financial plan under current rates over the study period. The projections shown in the table are based upon the current rate structure and do not include any rate adjustments or proceeds from additional debt issuances, as there are no rate adjustments or debt issuances projected for the non-potable utility.

Revenues generated from rates are estimated to be adequate to sufficiently recover the operating expenses of the non-potable utility and build back reserves toward closely meeting target reserve levels by FY 2020.

⁵⁴ Due to construction inflation, the values in Figure 7-1 will not match the City-provided CIP exactly.

Comprehensive Water, Non-Potable Water and Sewer Rate Study Report

City of San Juan Capistrano

April 2014 – FINAL REPORT



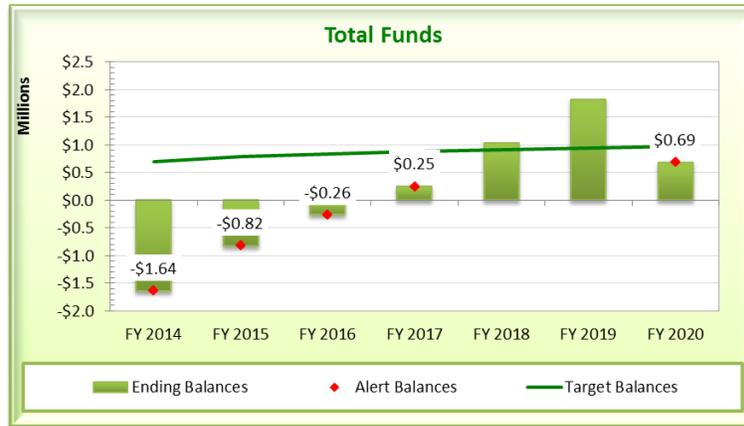
Table 7-4: Non-Potable Financial Plan

	FY 2014 <i>Budgeted</i>	FY 2015 <i>Projected</i>	FY 2016 <i>Projected</i>	FY 2017 <i>Projected</i>	FY 2018 <i>Projected</i>	FY 2019 <i>Projected</i>	FY 2020 <i>Projected</i>
REVENUES							
Revenues from Current Rates	\$102,389	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524
Revenue Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Recycled Water Misc Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL REVENUES	\$102,389	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524	\$1,260,524
O&M EXPENSES							
	\$73,030	\$451,048	\$439,610	\$469,793	\$469,782	\$486,059	\$502,866
DEBT SERVICE							
	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET INCOME	\$29,359	\$809,476	\$820,914	\$790,731	\$790,742	\$774,465	\$757,658
Non-Potable Water Operations Fund							
Beginning Balance	\$0	\$29,359	\$847,266	\$674,896	\$217,793	\$261,134	\$1,046,007
NET INCOME	\$29,359	\$809,476	\$820,914	\$790,731	\$790,742	\$774,465	\$757,658
Transfers from /(to) Other Funds							
Non-Potable Water Capital Project Fund (Fund 65)	\$0	\$0	-\$1,000,000	-\$1,250,000	-\$750,000	\$0	-\$1,800,000
Interest Income	\$0	\$8,431	\$6,715	\$2,167	\$2,598	\$10,408	\$37
Ending Balance	\$29,359	\$847,266	\$674,896	\$217,793	\$261,134	\$1,046,007	\$3,701
Target Balance	\$118,258	\$212,762	\$212,902	\$223,538	\$226,718	\$234,066	\$241,644
Non-Potable Water Capital Project Fund (Fund 65)							
Beginning Balance	-\$1,667,146	-\$1,667,146	-\$1,667,146	-\$937,546	\$31,238	\$781,238	\$781,238
Revenues							
65-0-43920 (GRANTS-STATE)	\$2,222,330	\$0	\$0	\$0	\$0	\$0	\$0
65-0-44420 (WATER CAPACITY CHARGE)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
65-0-48502 (BOND PROCEEDS)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers							
From Non-Potable Water Operations Fund	\$0	\$0	\$1,000,000	\$1,250,000	\$750,000	\$0	\$1,800,000
CIP Expenditures	-\$2,222,330	\$0	-\$270,400	-\$281,216	\$0	\$0	-\$1,897,979
Ending Balance	-\$1,667,146	-\$1,667,146	-\$937,546	\$31,238	\$781,238	\$781,238	\$683,259
Target Balance	\$580,000	\$580,000	\$627,328	\$652,421	\$678,518	\$705,659	\$733,885
Non-Potable Water Funds							
Beginning Balance	-\$1,667,146	-\$1,637,787	-\$819,880	-\$262,650	\$249,031	\$1,042,372	\$1,827,245
Ending Balance	-\$1,637,787	-\$819,880	-\$262,650	\$249,031	\$1,042,372	\$1,827,245	\$686,961
Target Balance	\$698,258	\$792,762	\$840,230	\$875,959	\$905,236	\$939,724	\$975,529

Figure 7-2 shows projected ending fund balances for the non-potable utility, where the green line indicates the target reserve balances as recommended by the reserve policy discussed in Section 4.



Figure 7-2: Non-Potable Water Operating and Capital Fund Balances



7.2 Development of Non-Potable Water Rates

7.2.1 Cost of Service Analysis

A cost of service analysis was developed for the non-potable water utility. Table 7-5 shows the FY 2015 revenue requirements projected to be recovered through the non-potable water rates.

Table 7-5: Non-Potable Water Revenue Requirements

	FY 2015
Revenue Requirements	
O&M Expenses	\$451,048
Debt Service	\$0
CIP Funding	\$0
Reserve Funding	\$809,476
Total Revenue Requirements from Rates	\$1,260,524



Table 7-6 derives the delivery rate per unit of non-potable water. The delivery revenues recover the remaining revenue requirement of the non-potable system after adjusting for monthly service charges (~\$62.8K) and water supply costs, which are recovered separately by the water supply rate component. The delivery unit rate is calculated by dividing delivery revenues by projected usage.

Table 7-6: Delivery Revenue Requirements

	FY 2015
Total Revenue Requirements from Rates	\$1,260,524
Less Water Supply Costs	
Non-Potable Well Production Costs	-\$70,660
Purchased RW Variable Costs ⁵⁵	-\$266,595
Less Monthly Service Charges⁵⁶	-\$62,764
Delivery Revenues	\$860,505
Projected Usage (ccf)	323,334
Delivery Rate	\$2.67 / ccf

7.2.2 Proposed Non-Potable Water Rates

7.2.2.1 Non-Potable Monthly Service Charges

Currently, recycled water (RW) accounts pay a uniform monthly service charge of \$19.66 regardless of meter size while non-potable accounts pay the monthly service charges varied by meter size. To keep consistency in the rate structure, RFC recommends that all non-potable water accounts, including current RW accounts, are assessed the same monthly service charges as the potable water accounts to pay for their fair share of customer service cost, meter maintenance and other service-related costs (Table 7-7). Please see Section 6 for more detail on the unit costs of service developed through the potable water cost of service analysis.

⁵⁵ Assumed 10% water loss included and blended variable costs from MNWD and SMWD to purchase 440 AF RW

⁵⁶ Same monthly service charges as potable water accounts, varied by meter sizes



Table 7-7: Proposed Monthly Service Charges for Non-Potable Accounts

	Customer Service	Meter Service	Capacity	Proposed FY 2015
5/8"	\$4.64	\$14.29	\$3.12	\$22.05
1"	\$4.64	\$18.30	\$7.80	\$30.74
1 1/2"	\$4.64	\$23.44	\$15.60	\$43.68
2"	\$4.64	\$37.73	\$24.96	\$67.33
3"	\$4.64	\$142.90	\$54.60	\$202.14
4"	\$4.64	\$181.92	\$98.28	\$284.84
6"	\$4.64	\$272.94	\$218.40	\$495.98
8"	\$4.64	\$467.90	\$374.40	\$846.94

7.2.2.2 Non-Potable Water Volumetric Rates

Table 7-8: Non-Potable Tier Definitions

Tiers	Current Definitions	Proposed Tiers	Proposed Definitions
Base Rate	No Indoor	Tier 1 – Essential Use	9 ccf (1 ccf = 748 gallons)
Tier I	Outdoor Use	Tier 2 – Efficient Use	Outdoor Use
Tier II	Up to 200% of Allocation	Tier 3 – Inefficient Use	100% of Tier 1 & Tier 2
Tier III	Above 200% of Allocation	Tier 4 – Excessive Use	Above Tier 3

Similar to potable water, non-potable water tier definitions have also been revised (Table 7-8) to be consistent with potable water tiers. Non-potable accounts will all receive a daily allocation of 220 gallons per day at the lowest tier of pricing for essential use, consistent with the other customer classifications. Outdoor use (Tier 2) allocation is based on the same methodology as described in Section 6.5.1 for potable landscape accounts. Usage above total allocation⁵⁷ is considered inefficient and excessive.

Non-potable rates have two commodity cost components from the City’s two sources of water supply. The first cost component is the non-potable well water (at \$0.47/ccf⁵⁸), and the second cost component is from the imported recycled water from two neighboring agencies, Santa Margarita Water District and

⁵⁷ Total allocation = 9 ccf (Tier 1) + outdoor use (Tier 2)

⁵⁸ Non-Potable Well production cost = \$70,660 in FY 2015 to produce 380 AF of non-potable water at \$0.47/ccf with assumed 10% water loss. Tier 1 and Tier 2 use is met first by well supply and then by the City’s imported recycled water. The weighted-average cost of the two cost components is \$0.86/ccf.



Moulton Niguel Water District (\$1.53/ccf). Essential and efficient use are projected to be met through a combination of supply from non-potable wells to the extent available, and then from purchased recycled water (blended rate of \$0.86/ccf). Inefficient and excessive use is met by imported recycled water at blended rate of \$1.53 /ccf⁵⁹. Additionally, the delivery cost recovers remaining non-potable water system costs not included in the monthly service charge. The delivery rate of \$2.67 per ccf is dedicated to recovering the remaining cost of service requirements for the non-potable utility. Tier 1 and Tier 2 are based on the delivery cost and the blended cost of water supply. Tier 3 and Tier 4 rates are higher because the water supply cost component is based only on purchased recycled water. Table 7-9 shows the proposed non-potable volumetric rates for FY 2015 through FY 2020. Note that the rates remain constant through FY 2020 based on there being no proposed rate adjustments through the study period for the non-potable utility.

Table 7-9: Non-Potable Water Volumetric Rates

Water Rates	Current	Water Supply	Delivery	Proposed (FY 2015 – FY 2020)
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.67	\$3.53 / ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.67	\$3.53 / ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.67	\$4.20 / ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.67	\$4.20 / ccf

7.3 Non-Potable Water Customer Impact Analysis

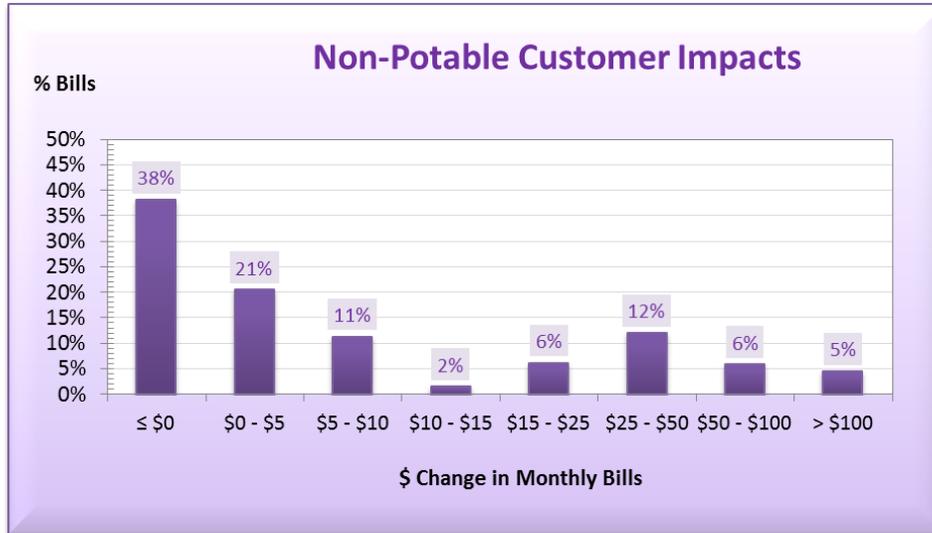
7.3.1 Customer Impact Analysis

To assist the City’s policymakers in making informed decisions, RFC has prepared an analysis to examine the impacts of the proposed rates. The following customer impacts chart shown in Figure 7-3 displays the bill impacts for all non-potable water customers. 38 percent of the bills have reduction or no change, and 21 percent have increases of less than \$5 on their monthly bills. Around 23 percent (12 + 6 + 5) of the customers will see increases larger than \$25 in their monthly bills.

⁵⁹ Assumed 80% RW imported from MNWD and 20% from SMWD



Figure 7-3: Customer Impact Analysis for Proposed Non-Potable Water Rates





8 Appendices

8.1 Appendix 1 – February 10, 2014 Rate Changes Meeting Presentation

The below presentation is as included in the agenda for the February 10, 2014, presentation, also available on the City’s website, here:

http://sjc.granicus.com/GeneratedAgendaViewer.php?view_id=3&clip_id=576

The following table summarizes the five financial plan scenarios presented for consideration during this meeting:

#	Scenario Name	Reserves Targets	CIP Scenario (Inflated FY 2015-2020)	Proposed Revenue Adjustments (FY 2015 – FY 2020)
1	Comprehensive	Achieve 100% reserve targets in FY 2020	Comprehensive CIP (\$33.3M)	15%, 15%, 9%, 9%, 6% & 6%
2	Updated Financial Plan	Achieve 100% reserve targets in FY 2020	Updated Current 7-year CIP (\$11.3M)	9.5%, 7.5%, 5%, 5%, 5%, 5%
3	Updated Financial Plan with Reduced Reserves	Achieve 50% reserve targets in FY 2020	Updated Current 7-year CIP (\$11.3M)	5% per year
4	Reduced Reserves & Reduced CIP	Achieve 50% reserve targets in FY 2020	Reduced CIP (\$7.5M)	4% per year
5	Minimal Financial Plan	Achieve 50% reserve targets in FY 2020	Minimal CIP (\$5.8M)	3.5% per year



WATER AND SEWER UTILITIES RATE STUDY

CITY COUNCIL SPECIAL MEETING

February 10, 2014



Agenda

- Pricing Objectives
 - What is the purpose of Pricing Objectives?
 - What are the different types of conservation rate structures?
 - Identified Goals and Objectives
- CIP Discussion
- Updated Financial Plan

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What is the Purpose?

- Pricing Objectives exercise
 - Helps identify at a conceptual level the type of rate structure(s) that would best meet the Agency / Utility needs
 - Helps narrow the rate structure alternatives so that we can have a more focused direction and framework to evaluate alternatives

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Balancing Competing Pricing Objectives



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Water Rate Structure Evolution

Revenue Mechanism

Flat Rate

Flat Rate

Flat Rate: \$xx / month regardless of usage

Pros: Revenue stability, easy to understand

Cons: Inequitable, no conservation signal, not affordable for essential use

Example: City of Chowchilla, City of Sacramento

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Water Rate Structure Evolution

Revenue Mechanism

Price Information

Flat Rate

Uniform Rate

Uniform Rate

Uniform Rate: \$xx / hcf

Pros: Revenue stability, administrative ease, easy to understand

Cons: Weak conservation, not affordable for essential use

Examples: City of Huntington Beach, Yorba Linda WD

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Water Rate Structure Evolution

↓
 Revenue Mechanism

↓
 Price Information

↓
 Behavior Change

Flat Rate

Uniform Rate

Seasonal Rate

Seasonal Rate: \$ xxx / hcf in Summer,
\$ x/hcf in Winter

Pros: Promotes water conservation in the summer, easy to administer

Cons: Revenue instability, not affordable for essential use

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Water Rate Structure Evolution

↓
 Revenue Mechanism

↓
 Price Information

↓
 Behavior Change

Flat Rate

Uniform Rate

Seasonal Rate

Inclining Tiered Rate

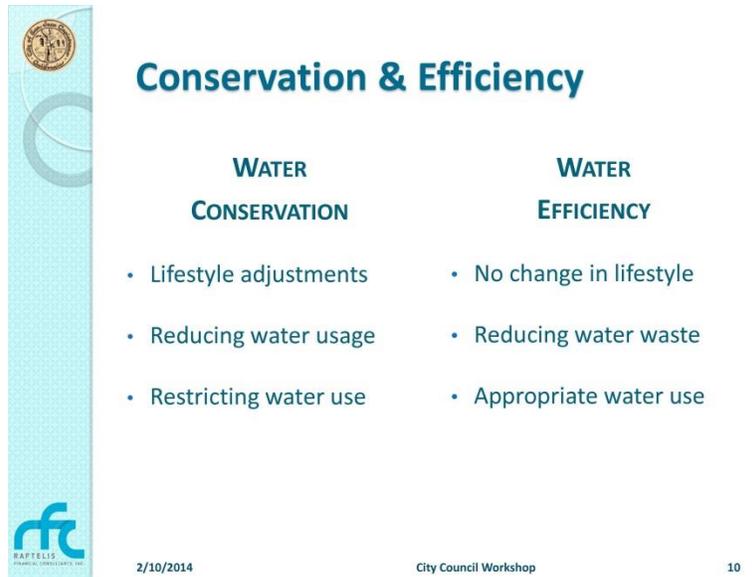
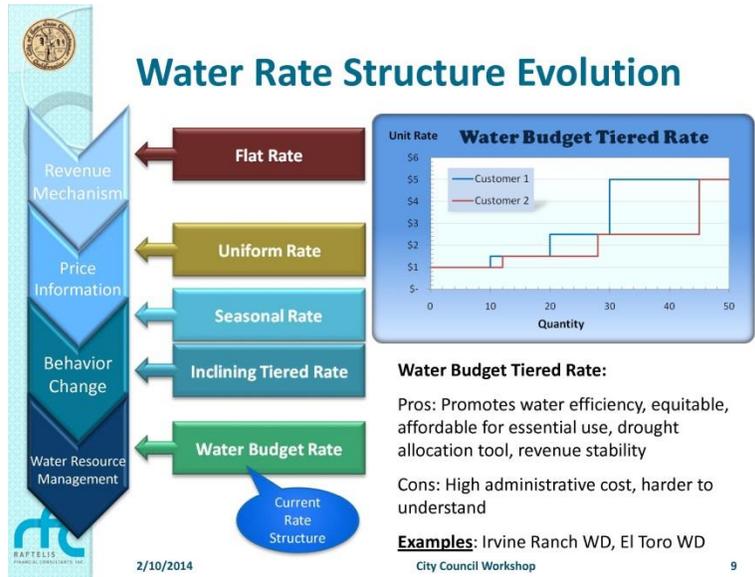
Inclining Tiered Rate:

Pros: Promotes conservation, affordable for essential use, easy to administer, easy to understand

Cons: Penalizes large users

Examples: City of Westminster, City of Brea

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WHAT ARE THE PRICING OBJECTIVES OF THE COMMISSION?

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Pricing Objectives

Conservation	Funding	Rate Stability	Equity	Administration
<ul style="list-style-type: none"> • Promotes Conservation • Promotes Efficiency • Target Outdoor Water Use • Ability to respond to Drought Conditions 	<ul style="list-style-type: none"> • Revenue Stability • Provide Funding Mechanism for Conservation Program 	<ul style="list-style-type: none"> • Rate Stability • Mitigate Customer Impact • Affordability for Essential Use 	<ul style="list-style-type: none"> • Equitable in Allocating Water Resource Cost • Equitable in Allocating CIP Cost • Perceived to be Fair to the Public • Consistent Residential Rates (SFR vs. MFR) • Based On Individual Needs • Single Rate for Potable Customer Class 	<ul style="list-style-type: none"> • Customer Understanding • Ease of Implementation • Ease of Administration • Scientific Method



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Conservation

- Promotes Conservation
- Promotes Efficiency
- Target Outdoor Water Use
- Ability to respond to Drought Conditions

Pricing Objectives

Promotes Conservation – The objective of water conservation is to reduce water usage and achieve savings over the year.

Promotes Efficiency – The objective of water efficiency includes development of benchmark standards associated with the appropriate amount of water usage for indoor and outdoor needs based on local characteristics of the City. Standards are set on an individual basis and on indoor and outdoor use parameters.

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Conservation

- Promotes Conservation
- Promotes Efficiency
- Target Outdoor Water Use
- Ability to respond to Drought Conditions

Pricing Objectives

Target Outdoor Water Use – This objective targets outdoor water customers and their use by determining the appropriate amount of water to allocate for outdoor needs.

Ability to Respond to Drought Conditions – This objective encourages the City to remain committed to a drought management plan that allows a mechanism to allocate both water and drought penalty rates during drought conditions.

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Pricing Objectives

Funding

- Revenue Stability
- Provide Funding Mechanism for Conservation Program

Revenue Stability – The ability of the rate structure to generate stable and predictable revenues from year to year can be an important consideration, particularly with regard to maintaining a good credit rating for borrowing money to address infrastructure needs, when needed or desired. It should be recognized that certain types of rate structures are more effective at maintaining revenue stability than others.

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Pricing Objectives

Funding

- Revenue Stability
- Provide Funding Mechanism for Conservation Program

Provide Funding Mechanism for Conservation Program – The rate structure should provide a funding mechanism to the conservation program of the agency, and in so doing, also determine the allocation of the program's costs among customers and their associated rates.

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Pricing Objectives

Rate Stability

- Rate Stability
- Mitigate Customer Impact
- Affordability for Essential Use

Rate Stability – This objective aims to minimize rate increases. Careful capital and financial planning can help ensure rate stability and avoid erratic changes in rates and charges from one year to the next. Also, a steady or consistent program of smaller annual rate adjustments is generally recognized as more preferable when compared to significantly larger increase once every three or four years.

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Pricing Objectives

Rate Stability

- Rate Stability
- Mitigate Customer Impact
- Affordability for Essential Use

Mitigate Customer Impact – Any new rate structure may result in different impacts to different customers. This objective recognizes these impacts and aim to minimize them.

Affordability for Essential Use – This objective addresses the importance of maintaining the price of water for essential use – i.e. that which is used for health and safety – at the lowest cost possible while considering the needs of the utility, industry practice, and regulatory conditions.

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Pricing Objectives

Equity

- Equitable in Allocating Water Resource Cost
- Equitable in Allocating CIP Cost
- Perceived to be Fair to the Public
- Consistent Residential Rates (SFR vs. MFR)
- Based On Individual Needs
- Single Rate for Potable Customer Class



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Equitable in Allocating Water

Resource Cost – This objective states that a rate structure achieves equity by reflecting the makeup of the demands on the City’s water supply in terms of allocation to each customer and the price each customer pays for it.

Equitable in Allocating CIP Cost – This objective states that a rate structure achieves equity by allocating the cost of capital (infrastructure) to each customer class based on each class’ consumption patterns and peaking characteristics.

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Pricing Objectives

Equity

- Equitable in Allocating Water Resource Cost
- Equitable in Allocating CIP Cost
- Perceived to be Fair to the Public
- Consistent Residential Rates (SFR vs. MFR)
- Based On Individual Needs
- Single Rate for Potable Customer Class



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Perceived to be Fair to the Public –

This objective recognizes the relevance of the public’s perception of how equitable a rate structure is and that managing that perception sometimes calls for informing/educating the public and other stakeholders.

Consistent Residential Rates (SFR vs. MFR) – This objective would strive to have similar rate structures for all residential customer types – both single-family (SF) and multi-family (MF), if administratively possible.

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Pricing Objectives

Equity

- Equitable in Allocating Water Resource Cost
- Equitable in Allocating CIP Cost
- Perceived to be Fair to the Public
- Consistent Residential Rates (SFR vs. MFR)
- Based On Individual Needs
- Single Rate for Potable Customer Class

Based on Individual Needs – This objective would strive to have tier allocations based on individual household characteristics.

Single Rate for Potable Customer Class – This objective prioritizes creating one rate structure that applies to all potable customer classes.



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Pricing Objectives

Administration

- Customer Understanding
- Ease of Implementation
- Ease of Administration
- Scientific Method

Customer Understanding – The ability for the rate structure to be explained in a manner that can be understood by customers and other stakeholders can have important impacts on the ability to build acceptance of rate adjustments.

Ease of Implementation – Implementing a new rate structure merits careful consideration, as rate structure implementation may require upfront (one-time) costs for data gathering or billing system changes.



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Administration

- Customer Understanding
- Ease of Implementation
- Ease of Administration
- Scientific Method

Pricing Objectives

Ease of Administration – An easy-to-administer rate structure decreases the ongoing costs of administering the structure, made up predominantly of additional staffing costs.

Scientific Method – This objective would strive to have a data driven rate structure based on scientific metrics of usage allocation.

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Based on the Commission's and Council's rankings of these objectives, RFC and City staff will evaluate which water rate structure is the most appropriate for the City

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CIP DISCUSSION

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CIP Discussion

Sewer CIPs:

Project	Reason	*Total Cost FY 2015-2020
Annual Sewer Replacement Program	Based on annual inspections, areas of the system are replaced/relined. This work keeps the sewer system maintained and functioning well; prevents breaks and sewer spills	\$2,700,000
Activa Sewer Pipeline Replacement/Relocation	An ongoing landslide is occurring on the slope where this pipe exists requiring replacement or relining to prevent a sewer line break and spill.	\$175,000
Sewer Pipeline Relocations at Ortega Hwy/Del O/I-5	Caltrans I-5 project requires moving the pipelines.	\$1,324

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.

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CIP Discussion

Recycled Water CIPs:

Project	Reason	*Total Cost FY 2015-2020
Recycled Water Service Conversions	Conversion of landscape accounts that currently use domestic water to recycled water. Recycled water is cheaper than domestic water and reduces the dependence on imported water.	\$500,000
Installation of Recycled Water Pipeline to Storage Reservoir	The current recycled water system does not have any storage capacity which makes it difficult to operate and requires augmentation of the system with domestic water when the system cannot keep up with demand or if there is a disruption. Storage can buffer the system against interruptions, reduce dependence on imported domestic water, and improves operations.	\$1,500,000

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.

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CIP Discussion

Water CIPs (Current 7-Year CIP, Obligated Projects):

Project	Reason	*Total Cost FY 2015-2020
760S Reservoir-Habitat Mitigation	Required mitigation for constructing the 760 reservoir in 2006.	\$180,000
Terminal Reservoir No. 3 - Habitat Mitigation	Required mitigation for constructing the T3 reservoir in 2006.	\$29,000
La Pata Water Pipeline Relocation	Required relocation of a City pipeline due to the County of Orange La Pata Road Extension Project.	\$1,401,000
Joint Regional Water Supply System (JRWSS) Capital Outlay	The JRWSS is a transmission pipeline that provides imported water to the City. Repairs to the flow control facility and pipeline replacement/relocation work is required.	\$286,580
Water Pipeline Relocations at Ortega Hwy/Del O/I-5	Caltrans I-5 project requires moving City pipelines.	\$50,235

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.

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CIP Discussion

Water CIPs (Current 7-Year CIP, Infrastructure Projects):

Project	Reason	*Total Cost FY 2015-2020
Pump Station Improvements	Four booster stations that are critical to system operations are in need of significant upgrades/replacement due to age and wear.	\$2,300,000
Pressure Regulating Valve (PRV) Improvements	The City has approximately 40 pressure zones. Each zone is controlled by one or many PRVs. Failure of a PRV can over-pressurize a zone causing catastrophic main breaks and water leaks. The PRVs are continually rebuilt and maintained on a routine basis but many are reaching the end of their useful life.	\$1,083,500
Greensand Filter Replacements	About every 5 years, the greensand filter vessels require rehabilitation to continue to be effective at treating the raw water the enters the groundwater recovery plant.	\$300,000
San Juan Hills Waterline Cathodic Protection	There is corrosion occurring on the ductile iron pipelines in this area due to the type of soil. Cathodic protection will slow the corrosion and extend the life of the pipelines until funds can be allocated to replace the pipelines.	\$164,000

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.

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CIP Discussion

Water CIPs (Current Financial Plan, Reliability Based Projects):

Project	Reason	*Total Cost FY 2015-2020
760S Reservoir, Additional Storage	Provides a second reservoir at the 760 site to be able to take the current reservoir off-line for maintenance as required. Also, provides additional storage capacity to improve supply reliability.	\$2,205,000
New Pipeline, Ortega Highway (E1)	The "2nd phase" of the Ortega Highway widening project provides the window of opportunity to finish installation of the pipeline that was started in the first phase of the Ortega Highway widening project.	\$761,000
New Pipelines Across San Juan Creek (E22) and Trabuco Creek (E9)	Installation of the pipeline provides redundant service to large areas of the water system that are vulnerable to the loss of water due to the failure/closure of a single line.	\$282,228
New Pipeline (E-22a) from the End of San Juan Creek Road to La Pata/Antonio	Installation of the pipeline provides redundant service to a large area of the water system that is vulnerable to the loss of water due to the failure/closure of a single line.	\$637,500

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.

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CIP Discussion

Water CIPs (Additional Projects, Not in the Current Financial Plan):

Project	Reason	*Total Cost FY 2015-2020
San Juan Hills Water Pipeline Replacements	Cathodic protection is slowing corrosion on these pipes but they need replacement.	\$5,000,000
Zone 2 Water pipeline relocation/ replacement (Krum line)	An ongoing landslide is occurring on the slope where this pipe exists requiring replacement/relocation to prevent loss of this line. This line is used to fill the 760 reservoir from the Zone 2 booster station.	\$1,000,000
Replace Pipeline under freeway that Feeds a Downtown Zone (250C zone)	The pipeline is a key feeder to the downtown area and needs to be replaced due to a history of leaks.	\$500,000
Activa Water Pipeline Replacement/ Relocation	An ongoing landslide is occurring on the slope where this waterline exists requiring replacement/relocation to prevent a waterline break.	\$250,000
Zone 3 Reservoir Replacement (Upper Hunt Club)	The pre-stressed concrete tank is reaching the end of its useful life.	\$1,000,000

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value. 2/10/2014 City Council Workshop 31



CIP Discussion

Water CIPs (Additional Projects, Not in the Current Financial Plan):

Project	Reason	*Total Cost FY 2015-2020
Replace the High West Side reservoirs	The High West Side Tanks are small tanks and minimally meet fire flow.	\$1,000,000
Distribution System Improvements	Installation of "blow off" assemblies at all dead ends is required to improve system water quality. Installation at new valves in the system is required to improve system operations/shutdown. Cast iron sections of fire hydrants have corrosion issues and need replacement.	\$1,000,000
Pump Station Improvements	Three booster stations that are critical to system operations are in need of significant upgrades/replacement due to age and wear. There are 7 total boosters stations in the system.	\$1,800,000
Install High Pressure pipeline to Bear Brand Pump Station	This important booster station is fed by one pipeline. An additional pipeline to this pumping facility improves system reliability.	\$1,000,000
Groundwater Recharge Project	Install facilities to use recycled water as recharge for the San Juan Basin.	\$1,500,000
Meter Replacement Program	Almost all of the current meters need replacement due to age. This program would replace the meters and upgrade them to an automated read system. (Note: This program is listed with the CIPs but would be budgeted for under the operating budget).	\$5,000,000

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value. 2/10/2014 City Council Workshop 32



CIP Discussion

Water CIPs (Summary):

Area	CIP Program	*Total Cost FY 2015-2020
Water	Current 7-Year CIP, Obligated Projects	\$1,946,815
	Current 7-Year CIP, Infrastructure Projects	\$3,847,500
	Current Financial Plan, Reliability Based Projects	\$3,885,728
	Total (Water), Current Financial Plan	\$9,680,043
	Additional Projects (Not in Current Financial Plan)	\$19,050,000
	Total (Water), Comprehensive CIP	\$28,730,043

Sewer	Total (Sewer), Current Financial Plan	\$2,876,324
Recycled Water	Total (Recycled Water), Current Financial Plan	\$2,000,000

*This amount is in current dollars. The numbers in the model are escalated by an assumed capital inflation value.



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Evaluated Water CIP Scenarios

- 1. Comprehensive CIP** (Add back the previously removed / deferred CIP)
- 2. Updated Current 7-year CIP** with updated financial information
- 3. Reduced CIP** (remove some 7-year CIP projects)
- 4. Minimal CIP** (Remove all CIPs except those that are contractually or regulatory obligated)



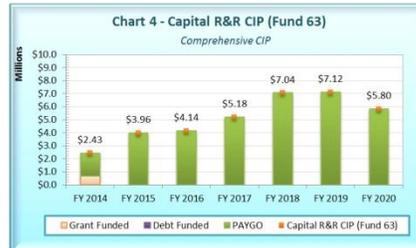
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Comprehensive CIP



Comprehensive CIP
 100% PAYGO and Grant Funded
 (Add back the previously removed / deferred CIP)

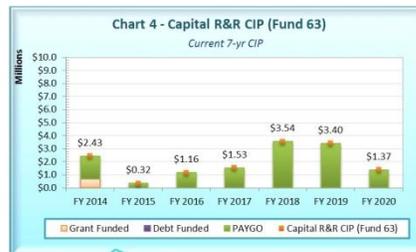
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Updated Current 7-year CIP



Updated Current 7-year CIP
 100% PAYGO and Grant Funded
 Updated for FY 2013 actual results and project carryovers

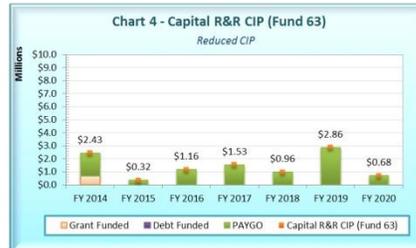
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Reduced CIP



Reduced CIP
100% PAYGO and Grant Funded
Remove some 7-year CIP projects

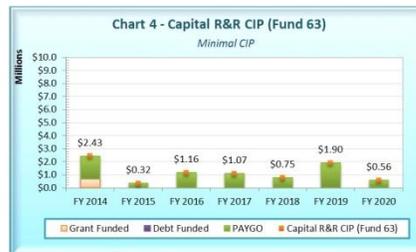
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Minimal CIP



Minimal CIP
100% PAYGO and Grant Funded
Remove all CIPs except those that are contractually or regulatory obligated

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CIP Scenarios Summary



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° UPDATED FINANCIAL PLAN

- Sewer
- Non-Potable Water
- Water

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SEWER FINANCIAL PLAN

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Proposed Sewer Financial Plan



Revenue Adjustments

Proposed: 5% per year revenue increases in FY 2019 and FY 2020

- **Blue bar** – proposed revenue adjustments necessary to cover all O&M and capital replacement (100% PAYGO) costs; and maintain recommended reserve levels through FY 2020

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Proposed Sewer Financial Plan



Operating Financial Plan

- Lines – revenues
 - Green solid line – current revenues
 - Green broken line – proposed revenues
- Stacked bars – expenses: O&M, debt service and reserve funding

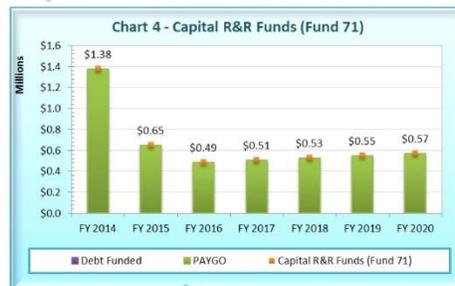
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Proposed Sewer Financial Plan



CIP & Funding Sources
Proposed: 100% PAYGO

- Green bar – Funded by PAYGO
- Purple bar – Funded by New Debt

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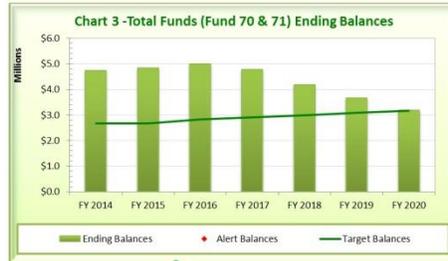
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Proposed Sewer Financial Plan



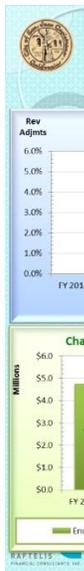
Ending Balances

- Green bar – Ending balances
- Green line – Target balances according to proposed reserve policies
- Red dot – Alert balances below targets

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Summary: Proposed Sewer Financial Plan



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NON-POTABLE FINANCIAL PLAN

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Non-Potable Financial Plan

Fiscal Year	Revenue Adjustments (%)
FY 2014	0.0%
FY 2015	0.0%
FY 2016	0.0%
FY 2017	0.0%
FY 2018	0.0%
FY 2019	0.0%
FY 2020	0.0%

Revenue Adjustments
No revenue increase

➤ Blue bar – revenue adjustments

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Non-Potable Financial Plan



Operating Financial Plan
 Non-potable Revenues and Expenses are grouped with RW starting FY 2015
 Includes 345AF of potable water that was used to augment the non potable system will be converted to RW

- > Lines – revenues
 - > Green solid line – current revenues
 - > Green broken line – proposed revenues
- > Stacked bars – expenses: O&M, debt service and reserve funding

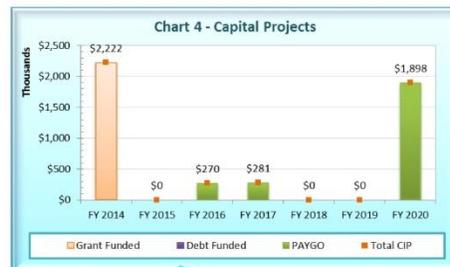
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Non-Potable Financial Plan



CIP & Funding Sources
 100% PAYGO and Grant Funded

- > Orange bar – Funded by Grant
- > Green bar – Funded by PAYGO
- > Purple bar – Funded by New Debt

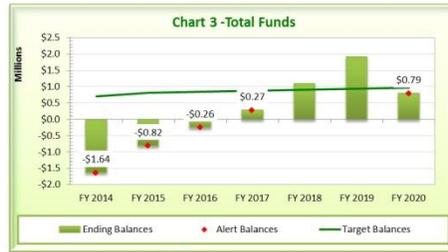
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Non-Potable Financial Plan



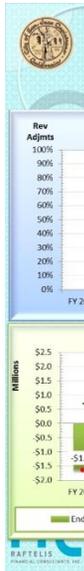
Ending Balances

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Summary: Non-Potable Financial Plan



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WATER FINANCIAL PLAN

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Revised O&M Expense Projections

- Water Supply
 - GWRP Production: 4,187 AF starting FY 2015 (increased from 3,843 AF in FY 2014)
 - Increase MWD Grant Revenues
 - Increase Fund 62 expenses
 - Decrease Commodity Charges MWD
- Others
 - Legal Costs, Meter Replacement & Repair Regional Pipeline and miscellaneous items
- Net income change ranges from \$170K to \$410K annually



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Evaluated Water Financial Plan Scenarios Summary

#	Scenario Name	Reserves Targets	CIP Scenario (Inflated FY 2015-2020)	Proposed Revenue Adjustments (FY 2015 – FY 2020)
1	Comprehensive	Achieve 100% reserve targets in FY 2020	Comprehensive CIP (\$33.6M)	15%, 15%, 9%, 9%, 6%, 6%
2	Updated Financial Plan	Achieve 100% reserve targets in FY 2020	Updated Current 7-year CIP (\$11.3M)	9.5%, 7.5%, 5%, 5%, 5%, 5%
3	Updated Financial Plan with Reduced Reserves	Achieve 50% reserve targets in FY 2020	Updated Current 7-year CIP (\$11.3M)	5% per year
4	Reduced Reserves & Reduced CIP	Achieve 50% reserve targets in FY 2020	Reduced CIP (\$7.5M)	4% per year
5	Minimal Financial Plan	Achieve 50% reserve targets in FY 2020	Minimal CIP (\$5.8M)	3.5% per year

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Comprehensive Water Financial Plan



Revenue Adjustments & Debt Coverage
 Proposed revenue adjustments: 15%, 15%, 9%, 9%, 6% and 6%

- **Blue bar** –proposed revenue adjustments (left axis) necessary to cover all O&M and “comprehensive” capital replacement (100% PAYGO) costs; and maintain recommended reserve levels through FY 2020
- **Green solid line** – target debt coverage (125%)
- **Green broken line** – projected debt coverage at proposed revenues (right axis)

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Comprehensive Water Financial Plan



Operating Financial Plan
 Non-potable Revenues and Expenses are grouped with RW starting FY 2015

- Lines – revenues
 - Green solid line – current revenues
 - Green broken line – proposed revenues
- Stacked bars – expenses: updated O&M, debt service and reserve funding

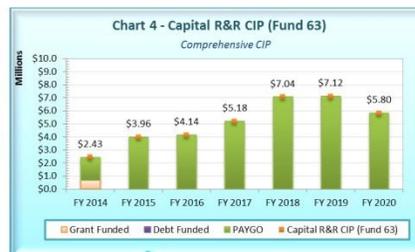
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Comprehensive Water Financial Plan



CIP & Funding Sources
 100% PAYGO and Grant Funded

- Orange bar – Funded by Grant
- Green bar – Funded by PAYGO
- Purple bar – Funded by New Debt

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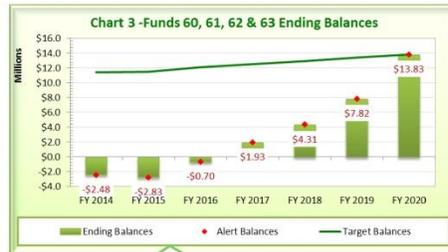
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Comprehensive Water Financial Plan



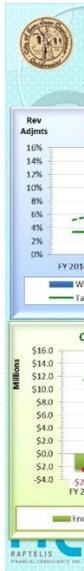
Ending Balances

- Green bar – Ending balances
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Comprehensive Water Financial Plan Meeting reserve target by FY 2020 with Comprehensive CIP



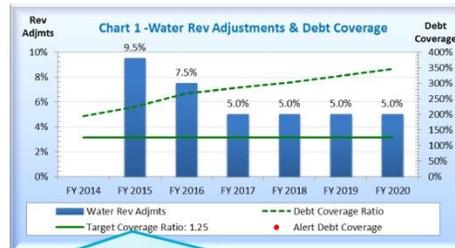
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Updated Water FP



Revenue Adjustments & Debt Coverage

Proposed revenue adjustments : 9.5%, 7.5%, 5%, 5%, 5% and 5%

- **Blue bar** – proposed revenue adjustments (left axis) necessary to cover all O&M and capital replacement (100% PAYGO) costs; and maintain recommended reserve levels through FY 2020
- **Green solid line** – target debt coverage (125%)
- **Green broken line** – projected debt coverage at proposed revenues (right axis)

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Updated Water FP



Operating Financial Plan

Non-potable Revenues and Expenses are grouped with RW starting FY 2015

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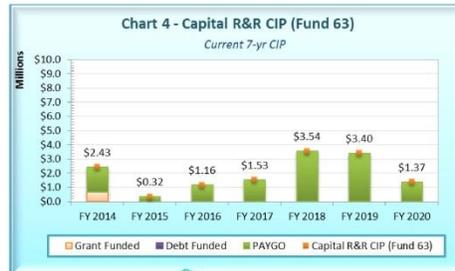
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Updated Water FP



CIP & Funding Sources

100% PAYGO and Grant Funded

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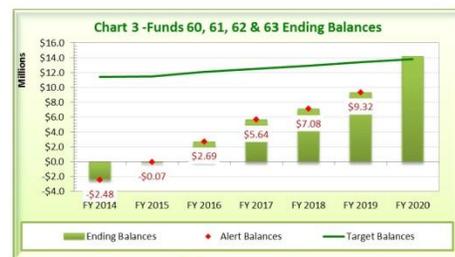
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Updated Water FP



Ending Balances

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Updated Water FP

Meeting reserve target by FY 2020 with current 7-yr CIP



RAFTELIS FINANCIAL CONSULTANTS, INC.

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Updated FP with Reduced Reserves

Meeting 50% reserve target by FY 2020 with current 7-yr CIP



RAFTELIS FINANCIAL CONSULTANTS, INC.

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Reduced Reserves & Reduced CIP Water FP



Revenue Adjustments & Debt Coverage
 Proposed revenue adjustments : 4% per year from FY 2015 to FY 2020

- **Blue bar** –proposed revenue adjustments (left axis) necessary to cover all O&M and “reduced” capital replacement (100% PAYGO) costs; and maintain 50% of recommended reserve levels through FY 2020
- **Green solid line** – target debt coverage (125%)
- **Green broken line** – projected debt coverage at proposed revenues (right axis)

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Reduced Reserves & Reduced CIP Water FP



Operating Financial Plan
 Non-potable Revenues and Expenses are grouped with RW starting FY 2015

- Lines – revenues
 - **Green solid line** – current revenues
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- Stacked bars – expenses: **O&M, debt service and reserve funding**

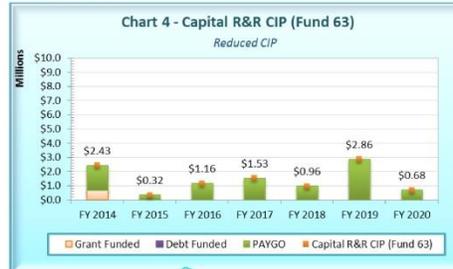
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Reduced Reserves & Reduced CIP Water FP



CIP & Funding Sources

100% PAYGO and Grant Funded

- Orange bar – Funded by Grant
- Green bar – Funded by PAYGO
- Purple bar – Funded by New Debt

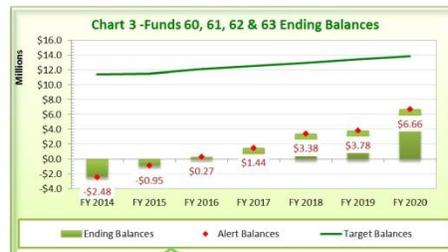
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Reduced Reserves & Reduced CIP Water FP



Ending Balances

- Green bar – Ending balances
- Green line – Target balances according to proposed reserve policies
- Red dot – Alert balances below targets

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Reduced Reserves & Reduced CIP FP Meeting 50% reserve target by FY 2020 with Reduce CIP



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Minimal Water FP



Revenue Adjustments & Debt Coverage

Proposed revenue adjustments : 3.5% per year from FY 2015 to FY 2020

- Blue bar – proposed revenue adjustments (left axis) necessary to cover all O&M and “under-managed” capital replacement (100% PAYGO) costs and maintain 50% of recommended reserve levels through FY 2020
- Green solid line – target debt coverage (125%)
- Green broken line – projected debt coverage at proposed revenues (right axis)

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Minimal Water FP



Operating Financial Plan

Non-potable Revenues and Expenses are grouped with RW starting FY 2015

- Lines – revenues
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- Stacked bars – expenses: O&M, debt service and reserve funding

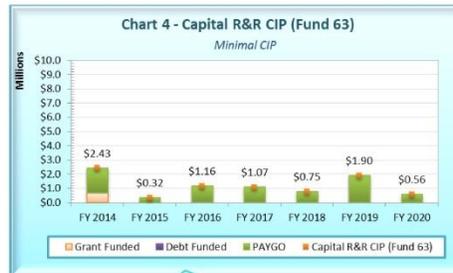
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Minimal Water FP



CIP & Funding Sources

100% PAYGO and Grant Funded

- Orange bar – Funded by Grant
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- Purple bar – Funded by New Debt

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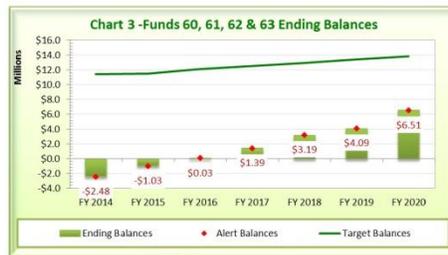
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Minimal Water FP



Ending Balances

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- Green line – Target balances according to proposed reserve policies
- Red dot – Alert balances below targets

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Minimal Water FP

Meeting 50% reserve target by FY 2020 with Minimal CIP



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Evaluated Water Financial Plan Scenarios Summary

#	Scenario Name	Reserves Targets	CIP Scenario (Inflated FY 2015-2020)	Proposed Revenue Adjustments (FY 2015 – FY 2020)
1	Comprehensive	Achieve 100% reserve targets in FY 2020	Comprehensive CIP (\$33.6M)	15%, 15%, 9%, 9%, 6% & 6%
2	Updated Financial Plan	Achieve 100% reserve targets in FY 2020	Updated Current 7-year CIP (\$11.3M)	9.5%, 7.5%, 5%, 5%, 5%, 5%
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4	Reduced Reserves & Reduced CIP	Achieve 50% reserve targets in FY 2020	Reduced CIP (\$7.5M)	4% per year
5	Minimal Financial Plan	Achieve 50% reserve targets in FY 2020	Minimal CIP (\$5.8M)	3.5% per year

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Discussion



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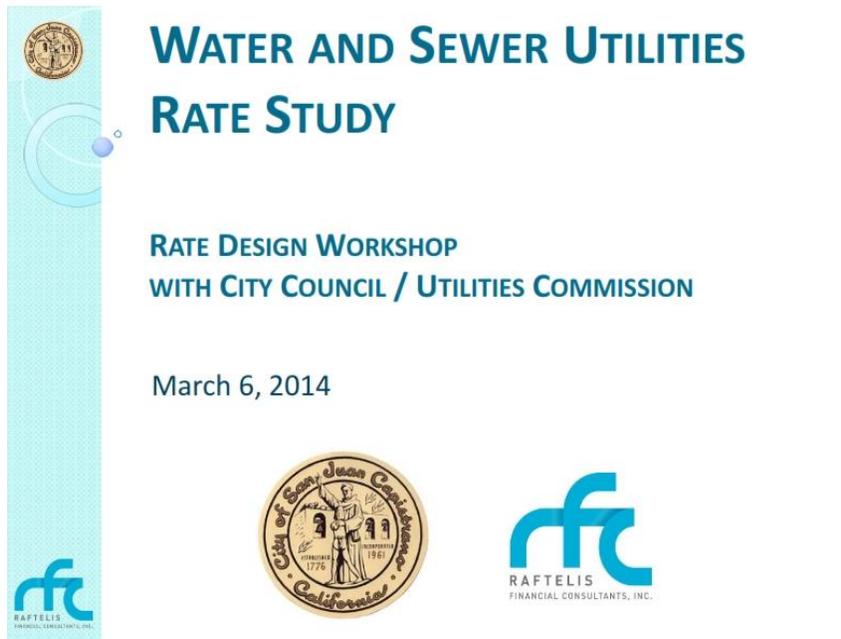


8.2 Appendix 2 - March 2014 Rate Design Workshop Presentations

8.2.1 March 6, 2014 Rate Design Workshop Presentation

The below presentation is as included in the agenda for the March 6, 2014 presentation, also available on the City's website, here:

http://sjc.granicus.com/GeneratedAgendaViewer.php?view_id=3&clip_id=592





Agenda

- Overview of Rate Study Process
- Water / Sewer Developer Impact Fees
- Sewer Rates
- Water Rates
 - Pricing Objectives
 - Water Budget Allocation & Tier Definitions
 - Cost of Service Analysis
 - Water Rate Design Options
 - Customer Impact Analyses
- Non-Potable Water Rates



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Water and Sewer Rate Study

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Overview of the Rate Study Process

- There are three steps in conducting a rate study
 1. Financial Plan
 2. Cost of Service
 3. Rate Design
- We have discussed / received comments from City Council and Utilities Commission on the Financial Plan



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Water and Sewer Rate Study

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DEVELOPER IMPACT FEES

1. Developer Impact Fees Overview
2. Sewer Developer Impact Fees
3. Water Developer Impact Fees

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Developer Impact Fees: the Basics

What are Developer Impact Fees?
(Also known as System Development Charges or Connection Fees)

One-time capital charges assessed against new development as a way to provide or cover a proportional share of the costs of capital facilities constructed or to be constructed for its use.



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Cost Justifications Required by Law Nexus Rationale

Developer Impact FEES MUST:

- Reflect the link between fees and benefits received by new customers
- Not exceed the proportional share of costs associated with providing service



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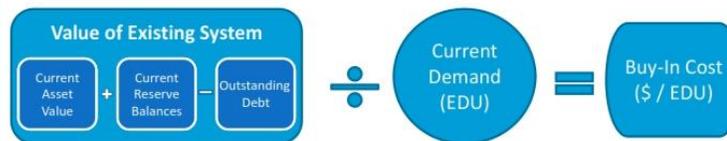
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System Buy-In Method

Focuses on Total Value and Capacity of Existing System

Recognizes that existing users have developed and maintained a utility system that can accommodate growth



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Marginal Incremental Cost Method

Recovers Growth Portion of Capital Plan

Focuses on the cost of additional facilities included in the Capital Improvements Program (CIP) that are developed to provide the incremental capacity needed to accommodate growth



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Hybrid Method

Combination of Buy-In and Incremental Methods



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Sewer Developer Impact Fees

- Current Fees = \$4,040.70 / EDU
- Proposed Fee = \$4,607 / EDU
(Buy-In + Incremental)
 - Buy-In component = \$3,071
 - Incremental component = \$1,536



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Water Developer Impact Fees

- Current Fees = \$10,607 / EDU
- Proposed Fee = \$9,610 / EDU
(Buy-In + Incremental)
 - Buy-In component = \$3,090
 - Incremental component = \$ 6,520



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SEWER RATE DESIGN

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Cost of Service Analysis

Step 1

- Determine flow and strength of residential customers
 - Examine inflow of the treatment and number of customers

Step 2

- Classify O&M costs and assets by function
 - Determine how much O&M and capital is strength or flow-related



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Cost of Service Analysis

- Step 3 • Allocate revenue requirements based on above classifications
 - Determine allocations for flow and strength
- Step 4 • Determine customer class characteristics and unit cost
- Step 5 • Distribution of costs to customer classes



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Sewer Cost Of Service Impacts

	Cost of Service (COS)	Current	Difference
Residential			
SFR	\$1,690,195	\$1,919,819	-12%
MFR	\$967,596	\$879,123	10%
Mobile Homes	\$195,471	\$214,732	-9%
Non-Residential			
Commercial	\$514,066	\$374,975	37%
Pool-Small	\$8,654	\$4,430	95%
Pool-Large	\$32,626	\$15,528	110%
TOTAL	\$3,408,608	\$3,408,608	0%



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Sewer Rates

	Current Fixed	Current Flow	Proposed Fixed	Proposed Flow	\$ Change Fixed	Difference Fixed
Residential						
SFR	\$27.64		\$24.34		-\$3.30	-12%
MFR	\$17.15		\$18.88		\$1.73	10%
Mobile	\$14.74		\$13.42		-\$1.32	-9%
Non-Residential						
Commercial	\$7.88	\$1.41	\$10.82	\$2.40	\$2.94	37%
Pool-Small	\$21.30		\$41.61		\$20.31	95%
Pool-Large	\$49.14		\$103.25		\$54.11	110%

Note:

- Commercial flow is based on Winter Average (not Total Consumption)



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Water and Sewer Rate Study

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Proposed Sewer Rates

5% Revenue Adjustments in FY 2019 & FY 2020

	Unit	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Revenue Adjustments							
		0%	0%	0%	0%	5%	5%
Residential							
SFR	\$/month	\$24.34	\$24.34	\$24.34	\$24.34	\$25.56	\$26.84
MFR	\$/month	\$18.88	\$18.88	\$18.88	\$18.88	\$19.83	\$20.83
Mobile	\$/month	\$13.42	\$13.42	\$13.42	\$13.42	\$14.10	\$14.81
Non-Residential							
Commercial Fixed	\$/month	\$10.82	\$10.82	\$10.82	\$10.82	\$11.37	\$11.94
Commercial Flow*	\$/hcf	\$2.40	\$2.40	\$2.40	\$2.40	\$2.52	\$2.65
Pool-Small	\$/month	\$41.61	\$41.61	\$41.61	\$41.61	\$43.70	\$45.89
Pool-Large	\$/month	\$103.25	\$103.25	\$103.25	\$103.25	\$108.42	\$113.85

*Based on Winter Usage



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Water and Sewer Rate Study

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WATER PRICING OBJECTIVES RESULTS

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Pricing Objectives Responses

1 = Most Critical, 2 = Critical, 3 = Important, 4 = Least Important

Pricing Objectives	Council S. Allevato	Council R. Byrnes	Council L. Kramer	Council D. Reeve	Council J. Taylor	Commission D. Glasgow	Commission R. Hartl	Commission T. Lytle	Commission R. Miller
Promotes Conservation	2	5 (N/A)	2	N/A	2	3	2		1
Promotes Efficiency	3	5 (N/A)	1	N/A	1	4	2	3	1
Target Outdoor Water Use	3	5 (N/A)	3	N/A	4	2	1		2
Revenue Stability	1	5 (N/A)	1	N/A	1	1	2	1	2
Provide Funding Mechanism for Conservation Program	3	5 (N/A)	2	N/A	4	3	3		3
Rate Stability	2	5 (N/A)	3	N/A	2	1	2	1	1
Mitigate Customer Impact	3	5 (N/A)	2	N/A	3	1	2	3	3
Affordability for Essential Use	1	5 (N/A)	1	N/A	1	1	3	2	2
Equitable in Allocating Water Resource Cost	1	5 (N/A)	2	N/A		2	2		2
Equitable in Allocating CIP Cost	3	5 (N/A)	4	N/A	3	2	2		2
Perceived to be Fair to the Public	2	5 (N/A)	1	N/A	1	1	2	1	1
Consistent Residential Rates (SFR vs. MFR)	4	5 (N/A)	2	N/A	2	4	3		2
Based On Individual Needs	4	5 (N/A)	2	N/A	4	4	3	3	3
Single Rate for Potable Customer Class	3	5 (N/A)	4	N/A	4	2	4		3
Customer Understanding	3	5 (N/A)	1	N/A	1	3	2	2	1
Ease of Implementation	3	5 (N/A)	4	N/A	3	4	3	2	2
Ease of Administration	3	5 (N/A)	3	N/A	4	4	3	3	2
Scientific Method	3	5 (N/A)	2	N/A	2	2	3		3



Pricing Objectives Rankings

Importance Ranking	Pricing Objectives	Average Score
1	Revenue Stability	1.29
2	Perceived to be Fair to the Public	1.29
3	Affordability for Essential Use	1.57
4	Rate Stability	1.71
5	Equitable in Allocating Water Resource Cost	1.80
6	Customer Understanding	1.86
7	Promotes Conservation	2.00
8	Promotes Efficiency	2.14
9	Mitigate Customer Impact	2.43
10	Target Outdoor Water Use	2.50
11	Scientific Method	2.50
12	Equitable in Allocating CIP Cost	2.67
13	Consistent Residential Rates (SFR vs. MFR)	2.83
14	Provide Funding Mechanism for Conservation Program	3.00
15	Ease of Implementation	3.00
16	Ease of Administration	3.14
17	Based On Individual Needs	3.29
18	Single Rate for Potable Customer Class	3.33



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Evaluated Water Rate Structure Design Options

1. Revised Water Budget with 25% of fixed costs recovered through service charges
2. Revised WB with 100% of fixed costs recovered through service charges
3. Uniform rate with 25% of fixed costs recovered through service charges
4. Uniform with 100% of fixed costs recovered through service charges



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Water Rate Structure Design Options and Pricing Objectives

Pricing Objectives	Average Score	Revised Water Budget	WB with 100% fixed	Uniform	Uniform with 100% Fixed
Revenue Stability	1.29	3	1	2	1
Perceived to be Fair to the Public	1.29	1	2	3	4
Affordability for Essential Use	1.57	1	3	2	4
Rate Stability	1.71	2	1	2	1
Equitable in Allocating Water Resource Cost	1.80	1	1	4	4
Customer Understanding	1.86	1	3	1	2
Promotes Conservation	2.00	1	4	3	4
Promotes Efficiency	2.14	1	2	3	4
Total		17.95	29.95	34.49	41.92



Water Rate Structure Evaluation to Meet Pricing Objectives: 1 = Best, 4 = Least

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WATER RATE DESIGN

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Legal Requirements on Water Rates

- California legal requirements for water rates mandate:
 - Nexus between the cost of running a utility and the rates charged to its customers
 - Rationale behind the increases in rates for inclining tiered rate structure
- We have identified three commodity rate components:
 1. Water Supply Costs
 2. Delivery Costs
 3. Revenue Offsets from Property Tax



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Water and Sewer Rate Study

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Tier 1 – Essential Use

- Tier 1 will be 9 ccf for all customer classes
 - Single Family & Multi Family Residential
 - Commercial
 - Irrigation
- 9 ccf (1 ccf billing unit = 748 gallons)
 - Daily allocation: 220 gallons per day
- Every customer will equally benefit from groundwater (lowest cost water) and revenue offsets



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Tier 2 – Efficient Use for Residential

Outdoor Water Budget (OWB)

Landscape Area

- Regular Lot (Lot size < 7,000 sq ft) = 2,700 sq ft (based on City's survey)
- Large Lot (Lot size in excess of 7,000 sq ft) = Lot Size – 2*Building Size
- Master Meter = As provided by customers, verified by City
- Multi Family with Irrigation = 500 sq ft (for patio garden)



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Tier 2 – Efficient Use for Commercial

• Current Tier Definitions:

- Tier 1 (Base Rate): 0 – 6 ccf
- Tier 2: 7 – 1,000 ccf
- Tier 3: above 1,000 ccf

• Current Bill Distribution

- 23% of commercial bills did not exceed Current Tier 1
- 77% of commercial bills did not exceed Current Tier 2

• Proposed Tier 2 will be based on average winter use

- Winter: January – March prior fiscal year
- This will further promote conservation / efficiency



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Revised Tier Definitions

Tiers	Current Definitions	Proposed Tiers	Proposed Definitions
Base Rate	Essential Use Portion of Indoor Use	Tier 1 – Essential Use	9 ccf (1 ccf = 748 gallons)
Tier I	Within 100% Allocation Remaining Indoor + Outdoor Use	Tier 2 – Efficient Use	Non-Commercial: Outdoor Use Commercial: Winter Average Use
Tier II	Up to 200% of Allocation	Tier 3 – Inefficient Use	Tier 1 + Tier 2
Tier III	Above 200% of Allocation	Tier 4 – Excessive Use	Above Tier 3



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Water Cost of Service Process

AWWA M1 Manual 6th Edition



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Water Cost of Service Process

American Water Works Association M1 Manual 6th Edition

- **Water Supply:** Costs that vary with total quantity of water used
- **Base:** O&M expenses and capital costs associated with service to customers under average load conditions (base use)
- **Peaking (or Extra Capacity) Costs:** Costs associated with meeting peak demand usage in excess of base use
 - Max day extra demand
 - Max hour extra demand



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Water Cost of Service Process

American Water Works Association M1 Manual 6th Edition

- **Meter Maintenance:** Maintenance and capital costs related to meters
- **Customer Service:** Costs associated with serving customers, irrespective of the amount or rate of use
 - Meter reading, billing, customer accounting, customer service
- **Fire:** Costs that apply solely to fire protection
 - Public hydrants
 - Related branch mains and valves
 - Private Fire



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Evaluated Water Rate Structure Design Options

1. Revised Water Budget with 25% of fixed costs recovered through service charges
2. Revised WB with 100% of fixed costs recovered through service charges
3. Uniform rate with 25% of fixed costs recovered through service charges
4. Uniform with 100% of fixed costs recovered through service charges



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Monthly Service Charges

Three Cost Components:

1. Customer Service – uniform for all accounts
2. Meter Service – increased by meter cost ratios
 - Maintenance and capital costs related to meters
 - Portion of delivery fixed costs
3. Capacity – increased by meter capacity ratios
 - Portion of peaking cost



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FY 2015 Monthly Service Charges

Option 1: 25% Revenue Requirements w/ 5% Revenue Adjustment

Monthly Service Charges	# of Accts	Customer Service	Meter Service	Capacity	Proposed	Current
5/8" meter	6,784	\$4.64	\$14.29	\$3.12	\$22.05	\$19.66
1" meter	2,993	\$4.64	\$18.30	\$7.80	\$30.74	\$29.50
1 1/2" meter	567	\$4.64	\$23.44	\$15.60	\$43.68	\$44.24
2" meter	699	\$4.64	\$37.73	\$24.96	\$67.33	\$61.87
3" meter	9	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22
4" meter	20	\$4.64	\$181.92	\$98.28	\$284.84	\$164.19
6" meter	8	\$4.64	\$272.94	\$218.40	\$495.98	\$314.62
8" meter	1	\$4.64	\$467.90	\$374.40	\$846.94	\$496.50
Fireline 6"	87	\$4.64	\$14.29	\$65.19	\$84.12	\$88.49
Fireline 8"	87	\$4.64	\$14.29	\$138.92	\$157.85	\$88.49
Construction	39	\$4.64	\$142.90	\$54.60	\$202.14	\$104.22



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Monthly Service Charges Options

5% Revenue Adjustment in FY 2015 (July 1, 2014)

Monthly Service Charges	Current	Proposed Options 1 & 3 (25% fixed)	Proposed Options 2 & 4 (100% fixed)
5/8" meter	\$19.66	\$22.05	\$61.19
1" meter	\$29.50	\$30.74	\$92.23
1 1/2" meter	\$44.24	\$43.68	\$139.25
2" meter	\$61.87	\$67.33	\$220.72
3" meter	\$104.22	\$202.14	\$663.59
4" meter	\$164.19	\$284.84	\$958.40
6" meter	\$314.62	\$495.98	\$1,718.96
8" meter	\$496.50	\$846.94	\$2,943.48
Fireline 6"	\$88.49	\$84.12	\$113.92
Fireline 8"	\$88.49	\$157.85	\$187.65
Construction	\$104.22	\$202.14	\$663.59



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Commodity Rates for Water

Three Cost Components:

1. Water Supply
 - A. Ground Water Recovery Plant (GWRP)
 - B. Imported from MWD / MWDOC
 - C. Drought Penalty Rates (if imposed by MWD)
2. Delivery recovers remaining fixed costs not recovered by service charges
3. Revenue Offsets from Property Tax



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Revised Water Budget Tiered Rates

Option 1: 5% Revenue Adjustment with 25% fixed

Water Rates	Water Supply	Delivery	Revenue Offsets	Proposed
Tier 1 - Essential Use	\$1.35	\$2.85	-\$0.79	\$3.41 / ccf
Tier 2 - Efficient Use	\$1.90	\$2.85	\$0.00	\$4.75 / ccf
Tier 3 - Inefficient Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf
Tier 4 - Excessive Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf



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FY 2015 Water Rate Options

5% Revenue Adjustment in FY 2015 (July 1, 2014)

Water Rates Per billing unit (CCF)	Current Rates*	Option 1 Revised Water Budget	Option 2 Water Budget with 100% fixed	Option 3 Uniform	Option 4 Uniform with 100% Fixed
Tier 1 Essential Use	\$3.18 / CCF	\$3.41	\$0.66	\$4.31	\$1.56
Tier 2 Efficient Use	\$4.24 / CCF	\$4.75	\$2.00	\$4.31	\$1.56
Tier 3 Inefficient Use	\$6.37 / CCF	\$5.15	\$2.40	\$4.31	\$1.56
Tier 4 Excessive Use	\$11.67 / CCF	\$5.15	\$2.40	\$4.31	\$1.56

* Note that the water budget allocation and tier definitions have changed from the current rates



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Customer Impact Analysis

5% Revenue Adjustment in FY 2015

Option 1: Water Budget Tiered Rates



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Water and Sewer Rate Study

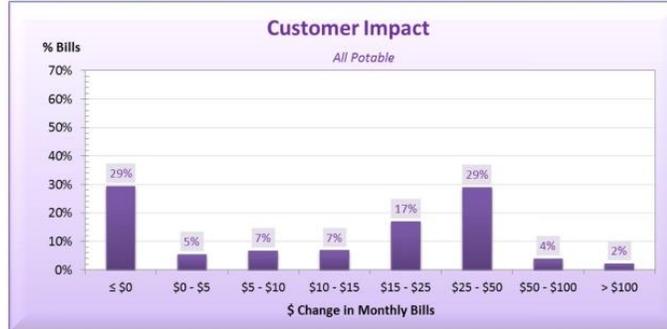
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Customer Impact Analysis

5% Revenue Adjustment in FY 2015

Option 2: Water Budget with 100% fixed cost



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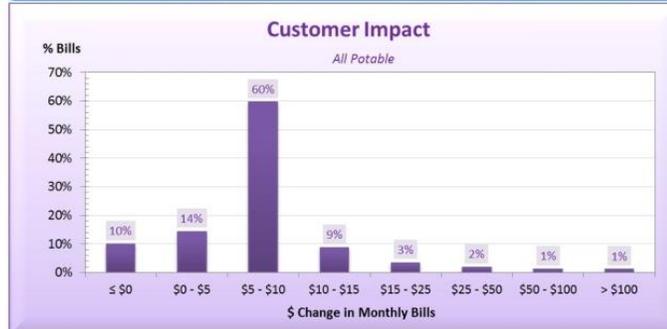
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Customer Impact Analysis

5% Revenue Adjustment in FY 2015

Option 3: Uniform Rate



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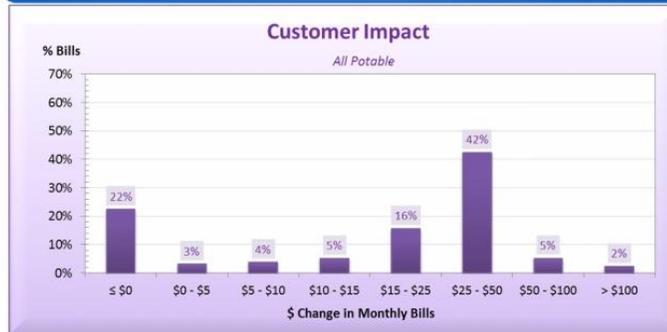
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Customer Impact Analysis

5% Revenue Adjustment in FY 2015

Option 4: Uniform Rate with 100% fixed cost



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Customer Impact Analysis

5% Revenue Adjustment in FY 2015

Option 1: Water Budget Tiered Rates



Option 3: Uniform Rate



Option 2: Water Budget with 100% fixed cost



Option 4: Uniform with 100% fixed cost



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Sample Regular Residential Bills (Water Only)

5% Revenue Adjustment in FY 2015

Total Water Budget = 18 ccf

Option 1: Water Budget Tiered Rates



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Sample Regular Residential Bills (Water Only)

5% Revenue Adjustment in FY 2015

Total Water Budget = 18 ccf

Option 2: Water Budget with 100% fixed cost



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Sample Regular Residential Bills (Water Only)

5% Revenue Adjustment in FY 2015

Total Water Budget = 18 ccf

Option 3: Uniform Rate



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Sample Regular Residential Bills (Water Only)

5% Revenue Adjustment in FY 2015

Total Water Budget = 18 ccf

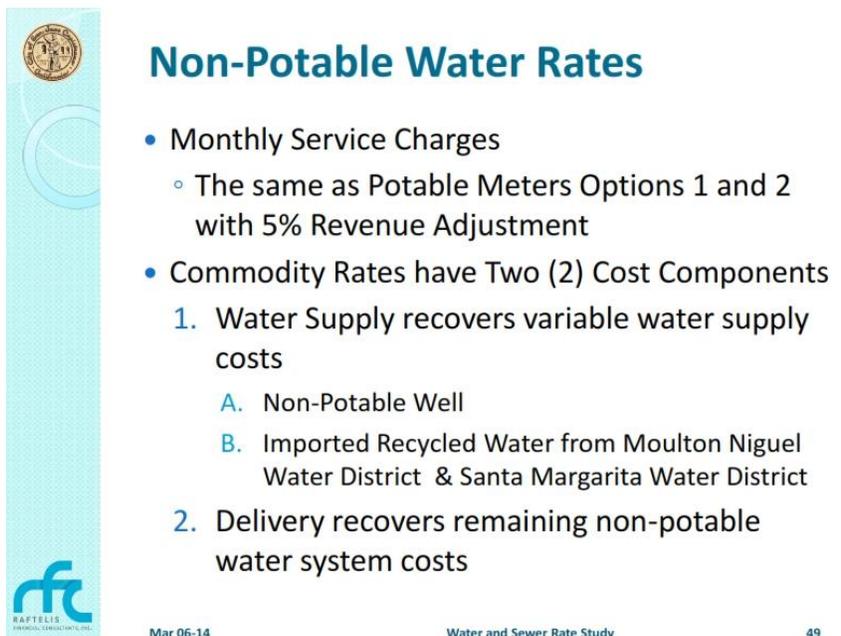
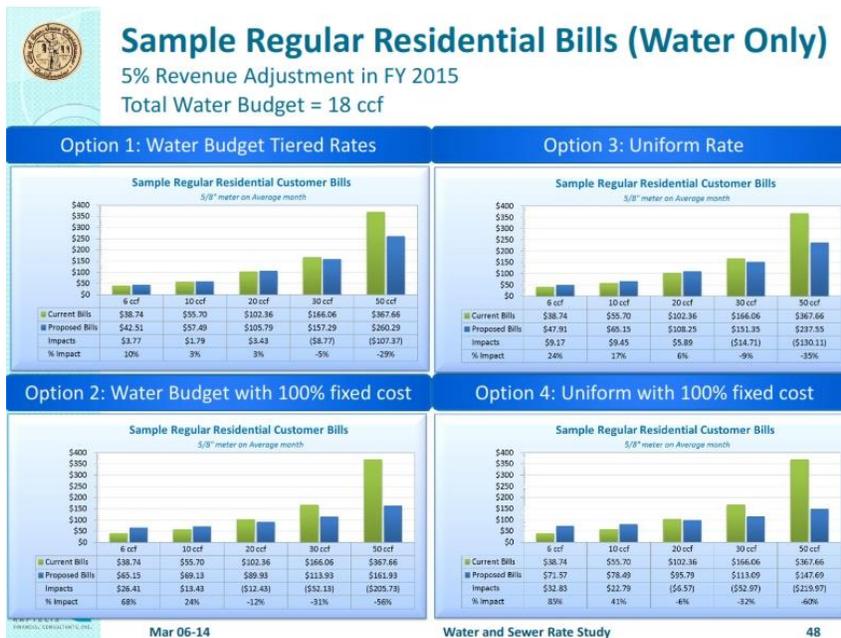
Option 4: Uniform Rate with 100% fixed cost



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Non-Potable Water Rates

With Monthly Service Charge Option 1

Water Rates	Current	Water Supply	Delivery	Proposed
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.67	\$3.53 / ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.67	\$3.53 / ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.67	\$4.20 / ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.67	\$4.20 / ccf



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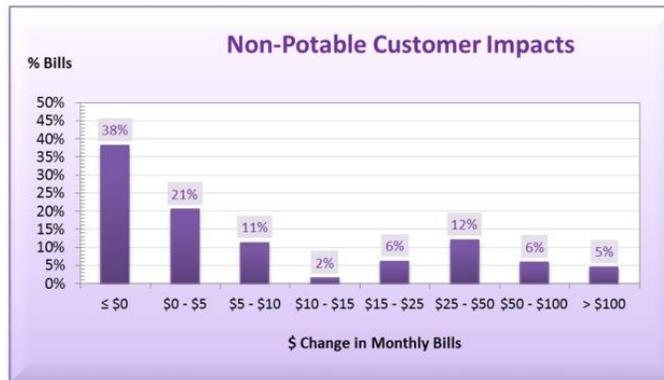
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Customer Impacts

With Monthly Service Charge Option 1



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Non-Potable Water Rates

With Monthly Service Charge Option 2

Water Rates	Current	Water Supply	Delivery	Proposed
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.23	\$3.09/ ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.23	\$3.09/ ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.23	\$3.76/ ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.23	\$3.76/ ccf



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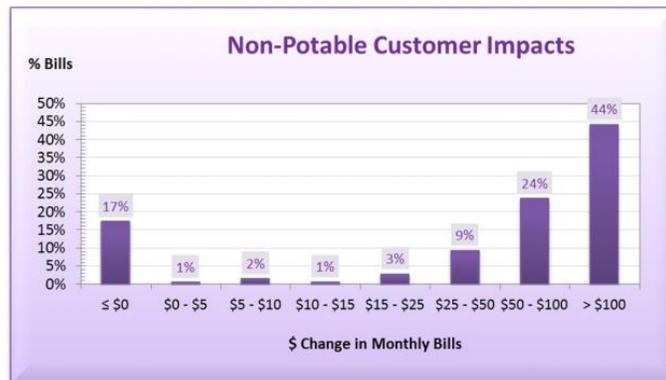
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Customer Impacts

With Monthly Service Charge Option 2



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Discussion



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Next Steps

Based on proposed rate direction made at March 6 Workshop:

- Report Development
 - Draft by March 20, 2014
 - Final by April 4, 2014
- City Council Adopt the Rate Study Report April 17, 2014
- Proposition 218 Notice
- Public Hearing June 11, 2014



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APPENDICES

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Water and Sewer Rate Study

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4% Revenue Adjustments

ALTERNATIVE WATER RATES

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Monthly Service Charges Options

4% Revenue Adjustment in FY 2015 (July 1, 2014)

Monthly Service Charges	Current	Proposed Options 1 & 3 (25% fixed)	Proposed Options 2 & 4 (100% fixed)
5/8" meter	\$19.66	\$21.76	\$60.41
1" meter	\$29.50	\$30.33	\$91.05
1 1/2" meter	\$44.24	\$43.11	\$137.47
2" meter	\$61.87	\$66.45	\$217.90
3" meter	\$104.22	\$199.48	\$655.13
4" meter	\$164.19	\$281.10	\$946.17
6" meter	\$314.62	\$489.49	\$1,697.01
8" meter	\$496.50	\$835.86	\$2,905.88
Fireline 6"	\$88.49	\$83.05	\$112.48
Fireline 8"	\$88.49	\$155.84	\$185.27
Construction	\$104.22	\$199.48	\$655.13



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FY 2015 Water Rate Options

4% Revenue Adjustment in FY 2015 (July 1, 2014)

Water Rates	Current Rates*	Option 1 Revised Water Budget	Option 2 Water Budget with 100% fixed	Option 3 Uniform	Option 4 Uniform with 100% Fixed
Tier 1 - Essential Use	\$3.18	\$3.38	\$0.66	\$4.28	\$1.56
Tier 2 - Efficient Use	\$4.24	\$4.72	\$2.00	\$4.28	\$1.56
Tier 3 - Inefficient Use	\$6.37	\$5.12	\$2.40	\$4.28	\$1.56
Tier 4 - Excessive Use	\$11.67	\$5.12	\$2.40	\$4.28	\$1.56

* Note that the water budget allocation and tier definitions have changed from the current rates



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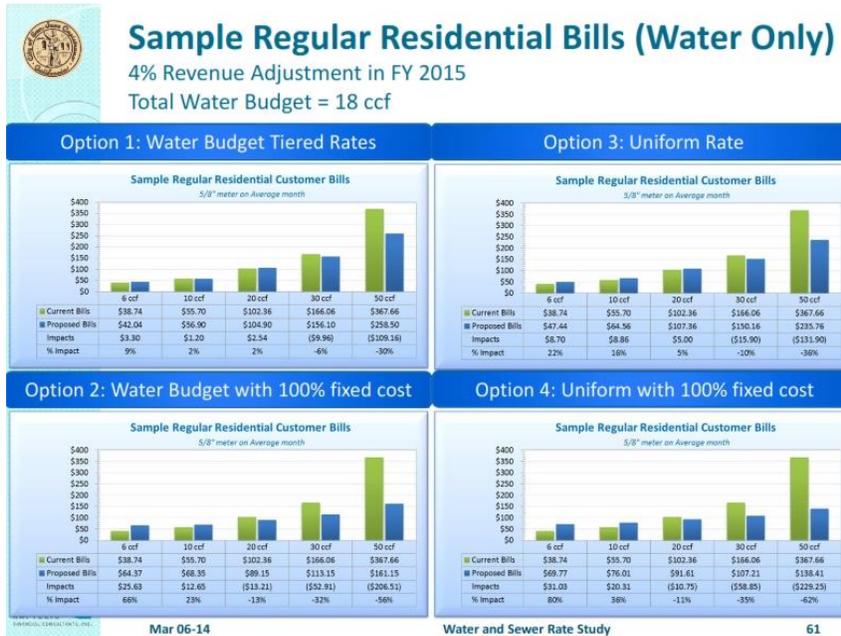
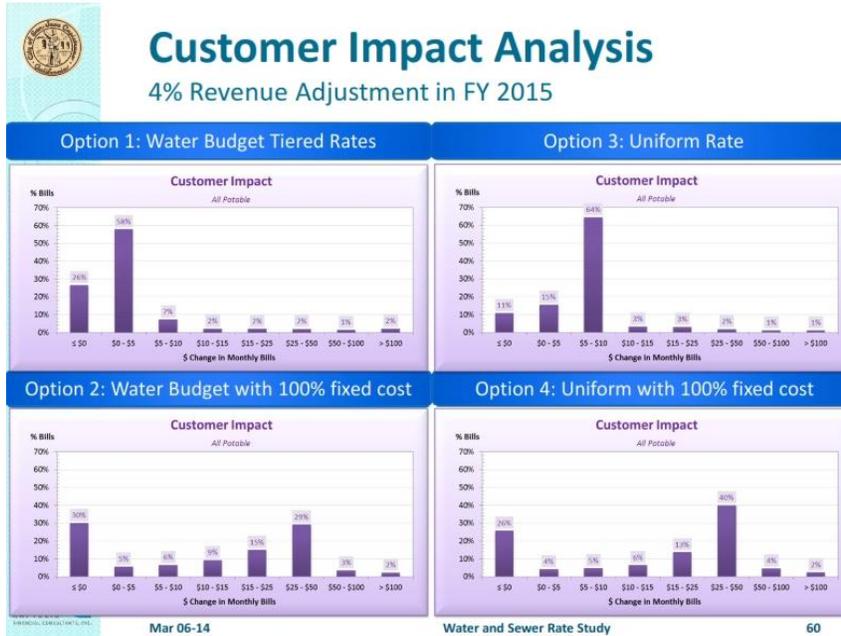
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Comprehensive Water, Non-Potable Water and Sewer Rate Study Report

City of San Juan Capistrano

April 2014 – FINAL REPORT





◦ **SEWER DEVELOPER IMPACT FEE**

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Sewer Developer Impact Fees

- Buy-In Cost = \$2,964 / EDU
 - $(\$28,707,312 + \$12,648,049) / 13,955 \text{ EDU}$
- Incremental Cost = \$1,482
 - $\$3,570,170 / 2,409 \text{ EDU}$
- Proposed Sewer Developer Impact Fees (in 2013\$) = \$2,954 + \$1,482 = \$4,446 / EDU
- **Sewer Developer Impact Fees in 2014 \$ = \$4,607**
 - *Escalated by projected ENR CCI 20-city in 2014 using 10-year average*

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Sewer Developer Impact Fees

- Current Fees = \$4,040.70 / EDU
- Current EDU = 13,955 EDU
 - 1 EDU = 220 gpd
 - Assume 4 people @ 55 gpcd
 - Consistent with SBx7-7
- Ultimate EDU = 16,364
 - Plant Capacity = 4 MGD
 - Ultimate Flow = 3.6 MGD
 - 90% of Plant Capacity
- Incremental EDU = 2,409



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Water and Sewer Rate Study

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Sewer Developer Impact Fees

- Asset Value by RCLD as of June 30, 2013 = \$28,707,312
- Total Sewer Fund (70, 71, and 72) Balances as of June 30, 2013 = \$12,648,049
- Growth Related CIP = \$3,570,170
 - CIP (FY 2014 to FY 2020) in the "Fund 72 – Capital Improvement Program (FY 2013/14 Mid-Term Update)"



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WATER DEVELOPER IMPACT FEE

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Water Developer Impact Fees

- Current Developer Impact Fees = \$10,607 per meter or EDU, whichever is greater, for Residential Developer Impacts
 - Water Capacity = \$3,942.82
 - Capital Improvement = \$3,034.97
 - Storage = \$3,629.26
- Current EDU = 17,638 EDU
 - # of equivalent meters based on meter capacity ratios
- Incremental EDU = 2,409
 - Same as Sewer



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Water Developer Impact Fees

- Asset Value by RCLD as of June 30, 2013 = \$83,110,246
- Total Water Fund (60-64) Balances as of June 30, 2013 = -\$3,196,990
- Outstanding Debt Balance = \$27,317,770
 - Includes only outstanding principal from 2014 until maturity
 - Excludes the outstanding principal used for growth related assets
- Growth Related CIP and Assets = \$15,158,357
 - CIP = \$4,358,728
 - CIP (FY 2014 to FY 2020) in the "Fund 64 – Capital Improvement Program (FY 2013/14 Mid-Term Update)"
 - Growth Related Assets = \$10,799,629
 - Growth related assets funded by current debt (plus financing costs)



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Water Developer Impact Fees

- Buy-In Cost = \$2,982
- Incremental Cost = \$6,292
- Proposed Water Developer Impact Fees (in 2013\$) = \$9,274 / EDU
- **Water Developer Impact Fees in 2014 \$ = \$9,610 / EDU**
 - Escalated by projected ENR CCI 20-city in 2014 using 10-year average



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Water and Sewer Rate Study

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SEWER COST OF SERVICE ANALYSIS

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Mass Balance Analysis Step 1

FY 13 Data	Flow (MGD)	BOD (lbs/day)	TSS (lbs/day)	Flow (hcf)	BOD (mg/L)	TSS (mg/L)
Total Plant	3.07	6,734	9,345	1,498,061	263	365
Less: I&I 5.00%	0.15	128	128	74,903	100	100
Net Plant	2.92	6,606	9,217	1,423,158	271	379
Non-Residential						
Commercial	0.40	1,672	1,672	195,576	500	500
Pool-Small	0.01	8	8	4,939	100	100
Pool-Large	0.04	33	33	19,332	100	100
Total Non-Residential	0.45	1,714	1,714	219,847	456	456
Residential						
SFR	1.49	2,950	4,524	725,595	238	365
MFR	0.82	1,633	2,504	401,623	238	365
Mobile Homes (MH)	0.16	309	474	76,093	238	365

Notes:

- Total Plant Flow data from Sewer SOCWA FY 12-13 final use audit.pdf
- Commercial Flow = Winter Average Flow
- Flows for Pool is based on 90% of 3-year average annual water consumption
- Assumed household sizes SFR = 4, MFR = 3, MH = 2
- Estimated Residential GPCD ~ 64 from the above mass balance
- Commercial customers should be split into separate classes based on strengths to meet SWRCB guidelines

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Sewer Cost of Service Analysis

Steps 2 to 4

	Flow	BOD	TSS	Billing	General	Total
Operating Expenses	\$1,255,340	\$386,415	\$386,415	\$188,981	\$540,081	\$2,757,231
Capital Expenses	\$510,831	\$56,451	\$56,451	\$0	\$27,644	\$651,377
Total Cost of Service	\$1,766,171	\$442,865	\$442,865	\$188,981	\$567,725	\$3,408,608
Allocation of General Costs	\$352,953	\$88,503	\$88,503	\$37,766	-\$567,725	
Net Cost of Service	\$2,119,125	\$531,368	\$531,368	\$226,747	\$0	\$3,408,608
Unit of Service with I&I	1,498,061	6,734	9,345	139,947		
Unit	hcf/yr	lbs/day	lbs/day	bilis/yr		
Unit Cost before I&I	\$1.41	\$78.91	\$56.86	\$1.62		
I&I Flows	74,903	128	128			
	hcf/yr	lbs/day	lbs/day			
Allocation of I&I Costs	-\$105,956	-\$10,108	-\$7,284	\$123,349		
I&I Unit Cost per bill				\$0.88		
Unit Cost w/ I&I	\$1.41	\$78.91	\$56.86	\$2.50		
Unit of Service	1,423,158	6,606	9,217	139,947		
Unit	hcf/yr	lbs/day	lbs/day	bilis/yr		
Total Cost of Service from Rates	\$2,013,168	\$521,260	\$524,084	\$350,096		\$3,408,608



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Water and Sewer Rate Study

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Sewer Cost of Service to Customer Classes

Step 5

		Flow	BOD	TSS	Billing	Total
Residential						
SFR	Unit	725,595	2,950	4,524	69,458	
	Cost	\$1,026,411	\$232,768	\$257,257	\$173,759	\$1,690,195
MFR	Unit	401,623	1,633	2,504	51,261	
	Cost	\$568,128	\$128,839	\$142,394	\$128,236	\$967,596
Mobile Homes	Unit	76,093	309	474	14,568	
	Cost	\$107,639	\$24,410	\$26,978	\$36,444	\$195,471
Non-Residential						
Commercial	Unit	195,576	1,672	1,672	4,136	
	Cost	\$276,657	\$131,967	\$95,095	\$10,347	\$514,066
Pool-Small	Unit	4,939	8	8	208	
	Cost	\$6,987	\$667	\$480	\$520	\$8,654
Pool-Large	Unit	19,332	33	33	316	
	Cost	\$27,347	\$2,609	\$1,880	\$791	\$32,626
TOTAL		\$2,013,168	\$521,260	\$524,084	\$350,096	\$3,408,608



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Water and Sewer Rate Study

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WATER RATE DESIGN

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Water and Sewer Rate Study

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Revised Outdoor Water Budget

- ETAF for Large Lot
 - 0 – 2,700 sq ft = 70%
 - 2,701 – 21,780 sq ft = 50%
 - Above 21,780 sq ft irrigable area = 30%
- ETAF for Irrigation Accounts
 - Landscape = 70%
 - Agriculture = 70%
 - City Farm = 70%
- Landscape Area
 - Regular Lot (Lot size < 7,000 sq ft) = 2,700 sq ft (based on City's survey)
 - Large Lot (Lot size in excess of 7,000 sq ft) = Lot Size – 2*Building Size
 - Master Meter = As provided by customers
 - Multi with IRR = 500 sq ft (for patio garden)
- Drought Factor outdoor (DF_{outdoor}) = 100%



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Water and Sewer Rate Study

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Monthly Service Charges Options

No Revenue Adjustment in FY 2015 (July 1, 2014)

Monthly Service Charges	Current	Proposed Options 1 & 3 (25% fixed)	Proposed Options 2 & 4 (100% fixed)
5/8" meter	\$19.66	\$20.64	\$57.30
1" meter	\$29.50	\$28.77	\$86.38
1 1/2" meter	\$44.24	\$40.89	\$130.41
2" meter	\$61.87	\$63.03	\$206.71
3" meter	\$104.22	\$189.24	\$621.47
4" meter	\$164.19	\$266.65	\$897.58
6" meter	\$314.62	\$464.30	\$1,609.88
8" meter	\$496.50	\$792.84	\$2,756.70
Fireline 6"	\$88.49	\$78.77	\$106.68
Fireline 8"	\$88.49	\$147.82	\$175.73
Construction	\$104.22	\$189.24	\$621.47



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Water and Sewer Rate Study

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FY 2015 Water Rate Options

No Revenue Adjustment in FY 2015 (July 1, 2014)

Water Rates	Current Rates*	Revised Water Budget	WB with 100% fixed	Uniform	Uniform with 100% Fixed
Tier 1 Essential Use	\$3.18	\$3.23	\$0.66	\$4.13	\$1.56
Tier 2 Efficient Use	\$4.24	\$4.57	\$2.00	\$4.13	\$1.56
Tier 3 Inefficient Use	\$6.37	\$4.97	\$2.40	\$4.13	\$1.56
Tier 4 Excessive Use	\$11.67	\$4.97	\$2.40	\$4.13	\$1.56

* Note that the water budget allocation and tier definitions have changed from the current rates



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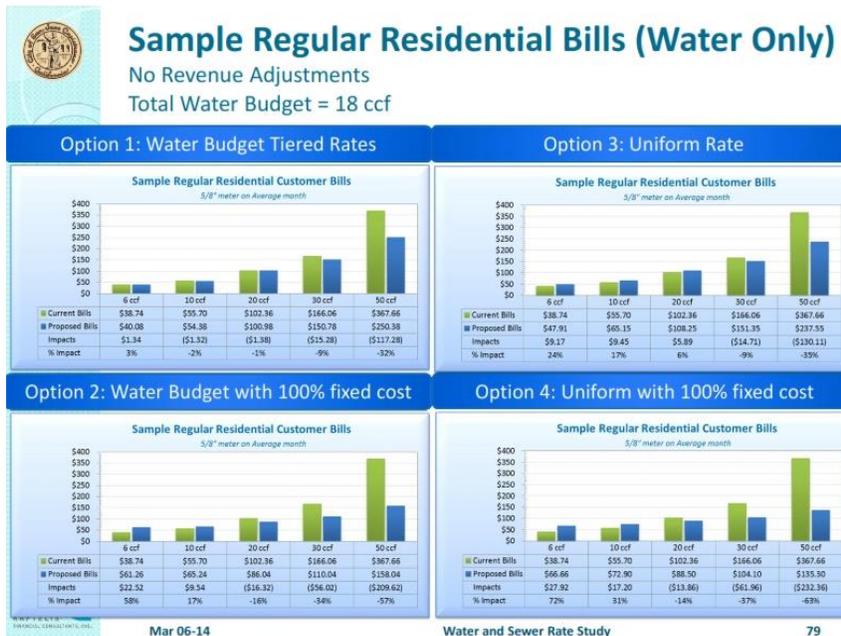
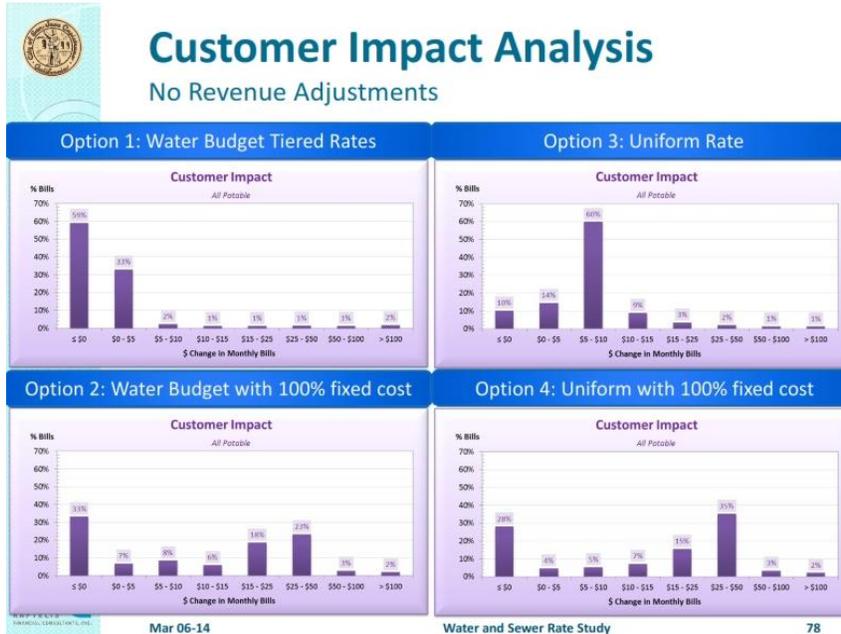
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Comprehensive Water, Non-Potable Water and Sewer Rate Study Report

City of San Juan Capistrano

April 2014 – FINAL REPORT







Questions?




RAFTELIS
FINANCIAL CONSULTANTS, INC.

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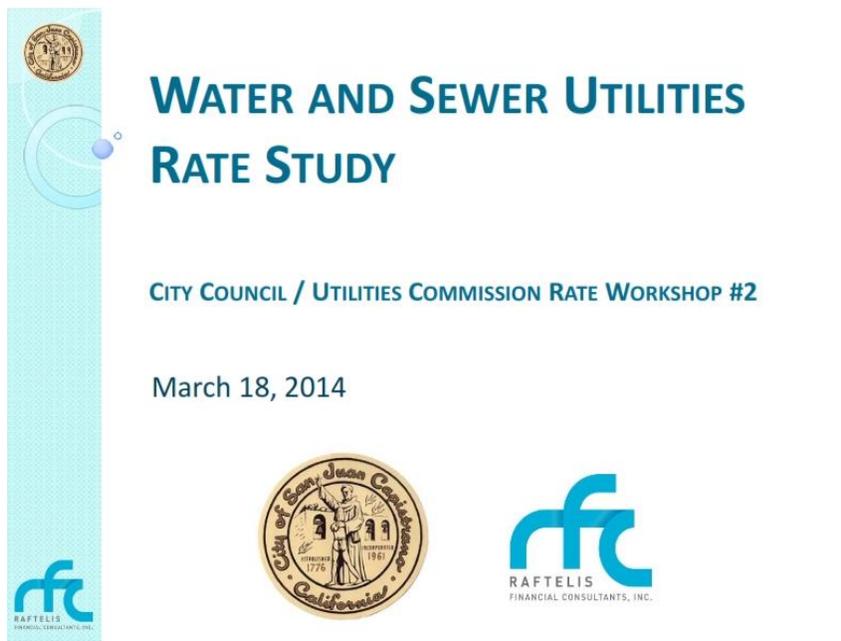
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8.2.2 March 18 2014 Rate Design Workshop Presentation

The below presentation is as included in the agenda for the March 18 2014 presentation, also available on the City's website, here:

http://sjc.granicus.com/GeneratedAgendaViewer.php?view_id=3&clip_id=601





Agenda

- Overview of Prior Rate Workshop
- Answers to questions received from the City Council, Utilities Commission, and Public
- Discussion
- Direction



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Water and Sewer Rate Study

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OVERVIEW OF PRIOR RATE WORKSHOP

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Water and Sewer Rate Study

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Sewer Developer Impact Fees

- Current Fees = \$4,441.69 / EDU
- Proposed Fee = \$4,607 / EDU
(Buy-In + Incremental)
 - Buy-In component = \$3,071
 - Incremental component = \$1,536



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Water and Sewer Rate Study

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Water Developer Impact Fees

- Current Fees = \$10,696 / EDU
- Proposed Fee = \$9,610 / EDU
(Buy-In + Incremental)
 - Buy-In component = \$3,090
 - Incremental component = \$ 6,520



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Water and Sewer Rate Study

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Proposed Sewer Rates

5% Revenue Adjustments in FY 2019 & FY 2020

	Unit	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Revenue Adjustments		0%	0%	0%	0%	5%	5%
Residential							
SFR	\$/month	\$24.34	\$24.34	\$24.34	\$24.34	\$25.56	\$26.84
MFR	\$/month	\$18.88	\$18.88	\$18.88	\$18.88	\$19.83	\$20.83
Mobile	\$/month	\$13.42	\$13.42	\$13.42	\$13.42	\$14.10	\$14.81
Non-Residential							
Commercial Fixed	\$/month	\$10.82	\$10.82	\$10.82	\$10.82	\$11.37	\$11.94
Commercial Flow*	\$/ccf	\$2.40	\$2.40	\$2.40	\$2.40	\$2.52	\$2.65
Pool-Small	\$/month	\$41.61	\$41.61	\$41.61	\$41.61	\$43.70	\$45.89
Pool-Large	\$/month	\$103.25	\$103.25	\$103.25	\$103.25	\$108.42	\$113.85

*Based on Winter Usage



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Water and Sewer Rate Study

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Evaluated Water Rate Structure Design Options

1. Revised Water Budget with 25% of fixed costs recovered through service charges
2. Revised WB with 100% of fixed costs recovered through service charges
3. Uniform rate with 25% of fixed costs recovered through service charges
4. Uniform with 100% of fixed costs recovered through service charges



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Water and Sewer Rate Study

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Monthly Service Charges

Three Cost Components:

1. Customer Service – uniform for all accounts
2. Meter Service – increased by meter cost ratios
 - Maintenance and capital costs related to meters
 - Portion of delivery fixed costs
3. Capacity – increased by meter capacity ratios
 - Portion of peaking cost



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Water and Sewer Rate Study

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Monthly Service Charges Options

5% Revenue Adjustment in FY 2015 (July 1, 2014)

Monthly Service Charges	Current	Proposed Options 1 & 3 (25% fixed)	Proposed Options 2 & 4 (100% fixed)
5/8" meter	\$19.66	\$22.05	\$61.19
1" meter	\$29.50	\$30.74	\$92.23
1 1/2" meter	\$44.24	\$43.68	\$139.25
2" meter	\$61.87	\$67.33	\$220.72
3" meter	\$104.22	\$202.14	\$663.59
4" meter	\$164.19	\$284.84	\$958.40
6" meter	\$314.62	\$495.98	\$1,718.96
8" meter	\$496.50	\$846.94	\$2,943.48
Fireline 6"	\$88.49	\$65.19	\$65.19
Fireline 8"	\$88.49	\$138.92	\$138.92
Construction	\$104.22	\$202.14	\$663.59



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Commodity Rates for Water

Three Cost Components:

1. Water Supply
 - A. Ground Water Recovery Plant (GWRP)
 - B. Imported from MWD / MWDOC
 - C. Drought Penalty Rates (if imposed by MWD)
2. Delivery recovers remaining fixed costs not recovered by service charges
3. Revenue Offsets from Property Tax



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Water and Sewer Rate Study

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FY 2015 Water Rate Options

5% Revenue Adjustment in FY 2015 (July 1, 2014)

Water Rates Per billing unit (CCF)	Current Rates*	Option 1 Revised Water Budget	Option 2 Water Budget with 100% fixed	Option 3 Uniform	Option 4 Uniform with 100% Fixed
Tier 1 Essential Use	\$3.18 / CCF	\$3.41	\$0.66	\$4.31	\$1.56
Tier 2 Efficient Use	\$4.24 / CCF	\$4.75	\$2.00	\$4.31	\$1.56
Tier 3 Inefficient Use	\$6.37 / CCF	\$5.15	\$2.40	\$4.31	\$1.56
Tier 4 Excessive Use	\$11.67 / CCF	\$5.15	\$2.40	\$4.31	\$1.56

* Note that the water budget allocation and tier definitions have changed from the current rates



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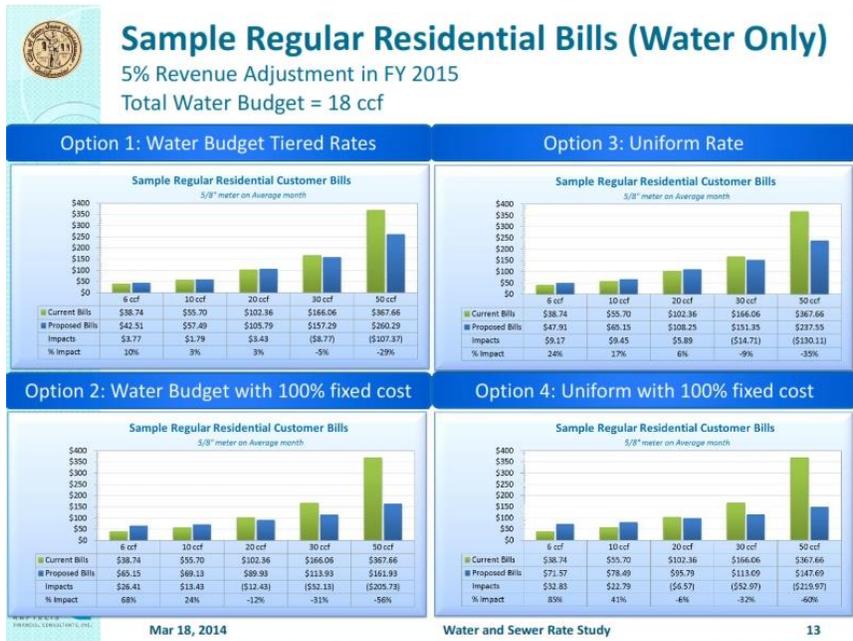
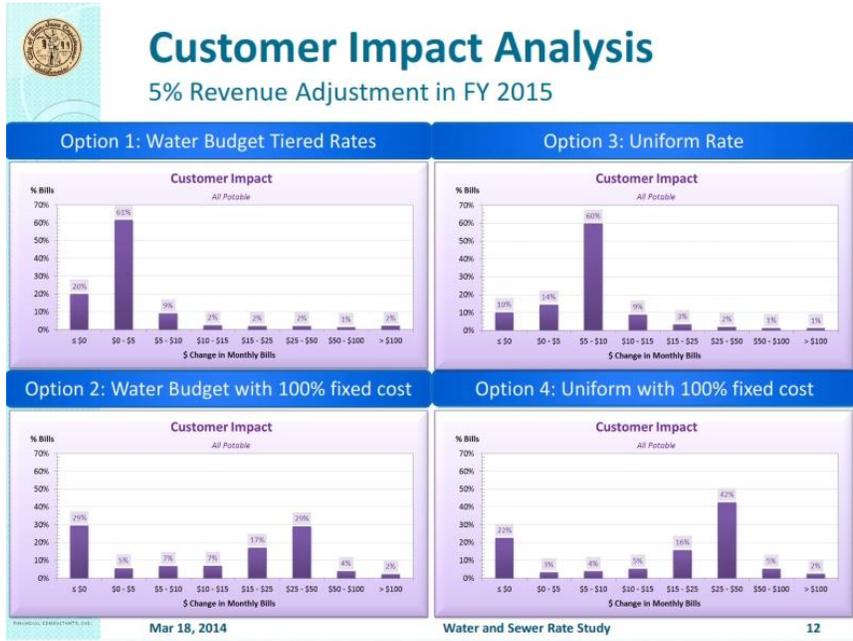
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Comprehensive Water, Non-Potable Water and Sewer Rate Study Report

City of San Juan Capistrano

April 2014 – FINAL REPORT





Non-Potable Water Rates

- Monthly Service Charges
 - The same as Potable Meters Options 1 and 2 with 5% Revenue Adjustment
- Commodity Rates have Two (2) Cost Components
 1. Water Supply recovers variable water supply costs
 - A. Non-Potable Well
 - B. Imported Recycled Water from Moulton Niguel Water District & Santa Margarita Water District
 2. Delivery recovers remaining non-potable water system costs



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Water and Sewer Rate Study

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Non-Potable Water Rates

With Monthly Service Charge Option 1

Water Rates	Current	Water Supply	Delivery	Proposed
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.67	\$3.53 / ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.67	\$3.53 / ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.67	\$4.20 / ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.67	\$4.20 / ccf



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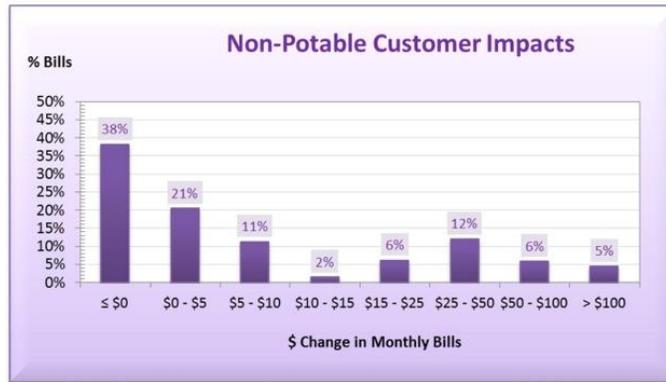
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Customer Impacts

With Monthly Service Charge Option 1



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Non-Potable Water Rates

With Monthly Service Charge Option 2

Water Rates	Current	Water Supply	Delivery	Proposed
Tier 1 - Essential Use	\$2.68	\$0.86	\$2.23	\$3.09/ ccf
Tier 2 - Efficient Use	\$3.57	\$0.86	\$2.23	\$3.09/ ccf
Tier 3 - Inefficient Use	\$5.36	\$1.53	\$2.23	\$3.76/ ccf
Tier 4 - Excessive Use	\$9.83	\$1.53	\$2.23	\$3.76/ ccf



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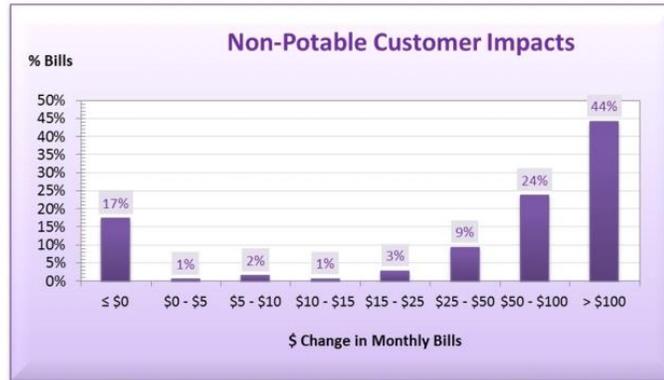
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Customer Impacts

With Monthly Service Charge Option 2



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QUESTIONS FROM CITY COUNCIL, UTILITIES COMMISSION, AND THE PUBLIC

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Questions from City Council and Utilities Commission

1. Cost of Potable Water from Each Source



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“All-In” Water Supply Costs

GWRP Total Cost – FY 2015

	Annual Cost	Cost per Acre Foot
Projected Production - Acre Feet (AF)		4,187
Fund 62 – GWRP Operations and Maintenance Cost	\$3,281,199	
Less: MWD Grant Reimbursement	<u>(1,046,870)</u>	
Net Production Cost	2,234,329	\$533.63
SJBA Annual Lease Payment (Fixed)	2,233,513	\$533.44
Other Capital Cost Component ⁽¹⁾	954,725	\$228.03
GWRP “All-In” Cost	\$5,422,567	\$1,295.10

⁽¹⁾ Cost per Acre Foot adjusted by \$0.01 due to rounding.



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“All-In” Water Supply Costs

MWD/MWDOC Unit Cost – FY 2015

	Annual Cost	Cost Per Acre Foot
Projected MWD Import - Acre Feet		3,130
Commodity Cost-MWD/MWDOC	\$2,840,632	\$907.55
MWD, MWDOC, JWRSS and other annual costs (Fixed)	778,961	\$248.87
Other Capital Cost Component ⁽³⁾	725,775	\$231.88
Imported Water - “All-In” Cost	\$4,345,367	\$1,388.30



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DETAILED WATER RATE CALCULATIONS

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Water Revenue Requirements

5% Revenue Adjustment in FY 2015

	FY 2015
Revenue Requirements	
O&M Expenses	\$13,928,867
Debt Service	\$2,881,649
CIP Funding	\$324,444
Reserve Funding	\$1,688,657
Total Revenue Requirements	\$18,823,617
Less Miscellaneous Revenues	
Fund 60 (Misc. Revenues)	-\$192,210
Fund 61 (Property Tax)	-\$894,860
Fund 62 (MWD Grants)	-\$1,046,870
Total Revenue Requirements from Rates	\$16,686,677



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Water Allocated Costs

5% Revenue Adjustment in FY 2015

	FY 2015
Water Supply Production Costs ¹	\$5,074,960
Base ²	\$6,909,491
Peaking ³	\$3,714,061
Customer Service	\$627,683
Meter Service	\$755,249
Conservation	\$287,004
Private Fire	\$213,089
Revenue Offsets	-\$894,860
Total Revenue Requirements from Rates	\$16,686,677



1. Water Supply Production Costs = GWRP O&M Expenses – MWD Grant + Import Water Supply Commodity Cost
2. Base Cost: Cost to meet average water demand → Recovered by delivery rate and / or monthly service charges (meter service)
3. Peaking Cost: Cost to meet peak water demand → Recovered by delivery rate and / or monthly service charges (capacity)

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Water Supply Production Costs

	FY 2015
Fund 62 – GWRP O&M Expenses	\$3,281,199
Less MWD Grant	-\$1,046,870
Subtotal GWRP Water Supply Cost	\$2,234,329
MWD/MWDOC Commodity Cost (\$907.55 / Acre Foot * 3,130 Acre Feet)	\$2,840,632
Total Water Supply Production Cost ⁽¹⁾	\$5,074,960

⁽¹⁾ Total adjusted by \$1 due to rounding in model.



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Water and Sewer Rate Study

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Water Supply Production Costs

GWRP Acre Foot (AF) and Unit (ccf) Cost

	FY 2015
Fund 62 – GWRP O&M Expenses	\$3,281,199
Less MWD Grant	-\$1,046,870
Subtotal GWRP Water Supply Cost	\$2,234,329
Estimated Quantity Produced	4,187 AF 1,823,857 ccf
GWRP Water Supply Cost	\$533.63 / AF
Unit GWRP Water Supply Cost	\$1.23 / ccf
Unit GWRP Water Supply Rate (with 10% water loss)	\$1.35 / ccf



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Water and Sewer Rate Study

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Water Supply Production Costs

MWD/MWDOC Acre Foot (AF) and Unit (ccf) Cost

	FY 2015
Estimated Quantity Purchased	3,130 AF 1,363,428 ccf
Blended MWDOC Effective Unit Cost for FY 2015	\$907.55 / AF
Subtotal MWDOC Variable Cost	\$2,840,632
Unit MWDOC Water Supply Cost	\$2.08 / ccf
Unit MWDOC Water Supply Rate (with 10% water loss) ⁽¹⁾	\$2.30 / ccf

⁽¹⁾ Adjusted by \$0.01 due to rounding in model.



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Water and Sewer Rate Study

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Variable Water Rate Component

Tiered Rate Structure

	Projected Usage	Production (with 10% loss)	GWRP	MWDOC	Unit Rate \$ / ccf (w/ loss)
Tier 1 – Essential Use	1,127,348	1,240,083	1,240,083	0	\$1.35
Tier 2 – Efficient Use	1,252,387	1,377,625 ⁽¹⁾	583,774	793,851	\$1.90
Tier 3 – Inefficient Use	421,527	463,680	0	463,680	\$2.30
Tier 4 – Excessive Use	96,480	106,128	0	106,128	\$2.30
Total	2,897,742	3,187,516	1,823,857	1,363,659	

⁽¹⁾ Adjusted by 1 unit due to rounding in model.

$$\text{Tier 2 Unit Rate} = (583,774 * \$1.35 + 793,851 * \$2.30) / 1,377,625 = \$1.90 / \text{ccf}$$



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Water and Sewer Rate Study

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Water Cost Components (Excl. WS)

Option 1 & 3 – 25% Fixed

	FY 2015	Unit of Service	Unit Rate
Delivery (Remaining water system costs)	\$8,254,668	2,897,742 Total projected usage	\$2.85
Revenue Offsets	-\$894,860	1,127,348 Tier 1 Usage	-\$0.79



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Water and Sewer Rate Study

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Revised Water Budget Tiered Rates

Option 1: 5% Revenue Adjustment with 25% fixed

Water Rates	Water Supply	Delivery	Revenue Offsets	Proposed
Tier 1 - Essential Use	\$1.35	\$2.85	-\$0.79	\$3.41 / ccf
Tier 2 - Efficient Use	\$1.90	\$2.85	\$0.00	\$4.75 / ccf
Tier 3 - Inefficient Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf
Tier 4 - Excessive Use	\$2.30	\$2.85	\$0.00	\$5.15 / ccf



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Water and Sewer Rate Study

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Variable Water Rate Component

Uniform Rate Structure

Variable Water Supply Costs / Projected Usage

$$\$5,074,960 / 2,897,742 \text{ ccf} = \$1.76 \text{ per ccf}^{(1)}$$

⁽¹⁾ Unit cost adjusted by \$0.01 due to rounding.



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Water and Sewer Rate Study

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Questions from City Council and Utilities Commission

2. The 7000 SF lot to establish outdoor water usage seems arbitrary. Can an actual lot size evaluation be done?

Answer:

As part of this rate study, a careful measurement of actual outdoor irrigable area of a sample of parcels around 7,000 sq. ft. was made, using GIS. This analysis showed that the actual average irrigable area was smaller, at 2,700 square feet.



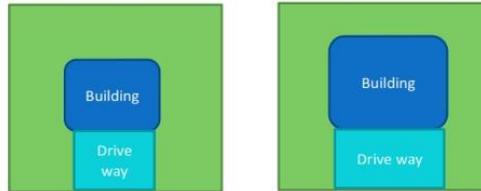
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Questions from City Council and Utilities Commission



Current Allocation: 3,636 sq ft

- Irrigable area \geq 52% of lot size of 7,000
- Building + other hardscape < 48% of lot size

Revised Allocation: 2,700 sq ft

- Irrigable area \geq 39% of lot size
- Building + other hardscape < 62% of lot size

Empirical landscape area analyses by other agencies conclude that irrigable area is about 1/3 of lot size for an average parcel.



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Water and Sewer Rate Study

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Questions from City Council and Utilities Commission

3. I support leaving the outdoor allocation as is. Won't the same allocation return the same revenue?

Answer: Yes, however, the units of water used in Tier 2 will increase in the current rate model, and a larger percentage of Tier 2 will be supplied by MWDOC imported water. Therefore, the water supply rate in Tier 2 will increase by a few cents over the current rate model.



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Questions from City Council and Utilities Commission

4. What was the source of the data that established the total BOD of 6734 lbs./day and the TSS of 9345 lbs./day? Are those values calculated based on design parameters?

Answer: The BOD and TSS values are from the Sewer SOCWA FY 12-13 final use audit.pdf (see extracts shown below)

Calculation of Solids Loading as Follows:

	CURRENT FLOW MGD	POUNDS BASED ON BOD	POUNDS BASED ON SS	TOTAL POUNDS PER DAY	OWNERSHIP POUNDS PER DAY AVERAGE	UNUSED CAPACITY OWNERSHIP
CSIC	8.07	6,734	9,345	8,040	11,572	3,432
MNWD	1.40	4,238	6,363	5,301	8,340	3,039
SCWD	2.06	5,498	5,292	5,395	7,715	2,320
SMWD	2.17	5,570	9,883	8,217	10,946	2,729
	8.70	23,040	30,863	26,953	38,573	11,620



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Water and Sewer Rate Study

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Questions from the Public

1. The Rate Model credited all the Property Tax Receipts to Tier I. Shouldn't the taxes be applied to the fixed cost recovered by the Service Charge, since the taxes are per parcel and I would think could largely be thought to cover fixed costs, such as fire protection. Tier I is 9 ccf but, not everyone uses 9 ccf.

Answer: The property tax is used to offset the water system fixed costs for all Tier 1 essential usage as an effort to provide affordability for essential use and to promote conservation.



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Water and Sewer Rate Study

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Questions from the Public

2. Is Mobile Home Park occupancy the reason for the increase to 9 CCF allocation? The sewer rate assumption is for 2 people.

Answer: Tier 1 allocation is not based on occupancy. 9 ccf is a block of water at the lowest rate for all customer classifications for essential use.



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Water and Sewer Rate Study

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Questions from the Public

3. Why are we using replacement cost less depreciation to determine the connection fee?

Answer: Replacement Cost less Depreciation (RCLD) is more defensible than using replacement cost only, because the RCLD:

- 1) is inflation-adjusted and thus recovers the cost of replacing that capacity in current dollars; and
- 2) accounts for depreciation and thus addresses the fact that the system is not new and has been used by current users.



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Water and Sewer Rate Study

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Direction from Utilities Commission and City Council

1. The preferred changes to the water and sewer developer impact fees
2. The preferred sewer rate design structure
3. The preferred water rate design structure
4. The preferred non-potable rate design structure



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Water and Sewer Rate Study

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Discussion / Q&A



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Water and Sewer Rate Study

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Water Rate Structure Design Options and Pricing Objectives

Pricing Objectives	Average Score	Revised Water Budget	WB with 100% fixed	Uniform	Uniform with 100% Fixed
Revenue Stability	1.29	3	1	2	1
Perceived to be Fair to the Public	1.29	1	2	3	4
Affordability for Essential Use	1.57	1	3	2	4
Rate Stability	1.71	2	1	2	1
Equitable in Allocating Water Resource Cost	1.80	1	1	4	4
Customer Understanding	1.86	1	3	1	2
Promotes Conservation	2.00	1	4	3	4
Promotes Efficiency	2.14	1	2	3	4
Total		17.95	29.95	34.49	41.92



Water Rate Structure Evaluation to Meet Pricing Objectives: 1 = Best, 4 = Least

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Water and Sewer Rate Study

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Water Cost Components (Excl. WS)

Option 1 & 3 – 25% Fixed

	FY 2015	Unit of Service	Unit Rate
Delivery (Remaining water system costs)	\$8,254,668	2,897,742 Total projected usage	\$2.85
Revenue Offsets	-\$894,860	1,127,348 Tier 1 Usage	-\$0.79
Customer Service	\$627,683	135,540 Bills	\$4.64
Meter Service (Meter service + 25% base cost)	\$2,482,622	173,845 equiv cost meters	\$14.29
Capacity (25% peaking cost)	\$928,515	298,218 Equiv capacity meters	\$3.12
Private Fire	\$213,089	272 Equiv 6" fireline services	\$65.19



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Water and Sewer Rate Study

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Water Cost Components (Excl. WS)

Option 2 & 4 – 100% Fixed

	FY 2015	Unit of Service	Unit Rate
Delivery (Remaining water system costs)	\$287,004	2,897,742 Total projected usage	\$0.10
Revenue Offsets	-\$894,860	1,127,348 Tier 1 Usage	-\$0.79
Customer Service	\$627,683	135,540 Bills	\$4.64
Meter Service (Meter service + 100% base cost)	\$7,664,740	173,845 equiv cost meters	\$44.09
Capacity (100% peaking cost)	\$3,714,061	298,218 Equiv capacity meters	\$12.46
Private Fire	\$213,089	272 Equiv 6" fireline services	\$65.19



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Water and Sewer Rate Study

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8.3 Appendix 3 – Sewer Cost Allocation Factors (Extracted from Financial Plan & COS Model)

Table 8-1: Sewer O&M Cost Allocation Factors

	Flow	BOD	TSS	Billing	General
51500-Finance				100%	
64804-Wastewater Code Inspection Services					100%
83409-Engineering-Inspection Svc					100%
83828-Environmental-Eng/NPDES Water Quality		50%	50%		
84806-Wastewater - Engineering	78%	9%	9%	0%	4%
84830-Wastewater - General Services					100%
93828-Environmental-Eng/NPDES Water Quality		50%	50%		
94530-Domestic Water-General Services					100%
94560-Domestic Water-System Maintenance	100%				
94830-Wastewater-General Services					100%
94834-Wastewater-Strategic Planning					100%
94835-Wastewater-Regulatory Compliance		50%	50%		
94854-Wastewater-Lift Stations	100%				
94855-Wastewater-Plant	47%	21%	21%	0%	10%
94860-Wastewater-System Maintenance	100%				
94870-Wastewater-Emergencies and After-Hours Response				100%	
Allocated Costs to Sewer from Water				100%	
O&M Cost Allocation Factors	45.5%	14.0%	14.0%	6.9%	19.6%

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Table 8-2: Sewer Capital Cost Allocation Factors

	Flow	BOD	TSS	Billing	General
Collection system	100%				
Pump stations	100%				
Treatment Plant - SOCWA⁶⁰	47%	21%	21%		10%
Capital Cost Allocation Factors	78.4%	8.7%	8.7%	0.0%	4.2%

⁶⁰ Source: Sewer SOCWA FY 12-13 final use audit.pdf

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8.4 Appendix 4 – Water Cost Allocation Factors (Extracted from Water Rate Model)

Table 8-3: Water O&M Allocation Factors

	FY 2015	Allocated by	Water Supply	Base	Max Day	Max Hour	Customer Service	Meter Service	Fire	Conservation
60 WATER ENTERPRISE OPERATIONS										
10300-Personnel	\$515	General	0%	0%	0%	0%	0%	0%	0%	0%
20700-City Attorney	\$50,000	General	0%	0%	0%	0%	0%	0%	0%	0%
51400-Administrative Services Administration	\$429,644	General	0%	0%	0%	0%	0%	0%	0%	0%
51700-Customer Service	\$707,612	Customer Service	0%	0%	0%	0%	100%	0%	0%	0%
64505-Water Code Enforcement	\$20,758	General	0%	0%	0%	0%	0%	0%	0%	0%
83300-Public Works Admin	\$0	General	0%	0%	0%	0%	0%	0%	0%	0%
83399-Public Works CIP	\$0	Capital	0%	31%	28%	6%	0%	0%	7%	0%
84500-Domestic Water	\$0	General	0%	0%	0%	0%	0%	0%	0%	0%
84506-Domestic Water-Engineering	\$0	Capital	0%	31%	28%	6%	0%	0%	7%	0%
84530-Domestic Water-General Services	\$0	General	0%	0%	0%	0%	0%	0%	0%	0%
94507-Domestic Water Development Engineering	\$0	Capital	0%	31%	28%	6%	0%	0%	7%	0%
94530-Domestic Water-General Services	\$1,313,751	Average Use	0%	40%	36%	13%	0%	0%	10%	0%
94532-Domestic Water-Water Conservation	\$268,769	Conservation	0%	0%	0%	0%	0%	0%	0%	100%
94533-Domestic Water-Field Customer Service	\$73,996	Customer Service	0%	0%	0%	0%	100%	0%	0%	0%
94534-Domestic Water-Strategic Planning	\$195,317	General	0%	0%	0%	0%	0%	0%	0%	0%
94535-Domestic Water-Regulatory Compliance	\$125,743	Base	0%	100%	0%	0%	0%	0%	0%	0%
94550-Domestic Water-Import Water Supply	\$3,633,587	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94551-Domestic Water-Distribution and Pumping	\$233,060	Max Hour	0%	33%	30%	27%	0%	0%	10%	0%
94552-Domestic Water-System Water Quality	\$165,046	Average Use	0%	40%	36%	13%	0%	0%	10%	0%
94553-Domestic Water-Cross Connection and Backflow Connection	\$61,331	Average Use	0%	40%	36%	13%	0%	0%	10%	0%
94560-Domestic Water-System Maintenance	\$659,922	Meter Service	0%	0%	0%	0%	0%	100%	0%	0%
94561-Domestic Water-Well Maintenance	\$103,645	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94562-Domestic Water-Reservoir Maintenance	\$185,003	Max Day	0%	47%	43%	0%	0%	0%	10%	0%
94563-Domestic Water-Preventative Maintenance	\$238,009	Average Use	0%	40%	36%	13%	0%	0%	10%	0%
94564-Domestic Water-Booster Facilities Maintenance	\$152,932	Max Day	0%	47%	43%	0%	0%	0%	10%	0%
94570-Domestic Water-Emergencies and After-Hours Response	\$25,750	Average Use	0%	40%	36%	13%	0%	0%	10%	0%
94661-Recycled Water-Well Maintenance	\$0	Conservation	0%	0%	0%	0%	0%	0%	0%	100%
RW Administrative Service Cost Allocation	-\$6,094	General	0%	0%	0%	0%	0%	0%	0%	0%
RW Customer Service Cost Allocation	-\$10,588	Customer Service	0%	0%	0%	0%	100%	0%	0%	0%
RW Misc Rev	\$468	General	0%	0%	0%	0%	0%	0%	0%	0%
Sewer Administrative Service Cost Allocation	-\$48,856	General	0%	0%	0%	0%	0%	0%	0%	0%
Sewer Customer Service Cost Allocation	-\$222,564	Customer Service	0%	0%	0%	0%	100%	0%	0%	0%
Sewer Misc Rev	\$51,745	General	0%	0%	0%	0%	0%	0%	0%	0%
61-WATER ENTERPRISE-DEBT SVC FUND	\$2,239,168	Base	0%	100%	0%	0%	0%	0%	0%	0%
<i>Fixed GWRP Costs (SIBA Lease Payments)</i>										
62-WATER ENTERPRISE-GWRP										
94564-Domestic Water-Booster Facilities Maintenance	\$0	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94730-Groundwater Recovery Plant System-General Services	\$322,620	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94752-Groundwater Recovery Plant System-GRWP Water Quality	\$150,000	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94755-Groundwater Recovery Plant System-GRWP Plant	\$1,920,827	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94756-GAC	\$332,000	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94761-Groundwater Recovery Plant System-Well Maintenance	\$511,862	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94762-Groundwater Recovery Plant System-Reservoir Maintenance	\$3,090	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
94770-Groundwater Recovery Plant System-Emergencies and After-Hours Response	\$40,800	Water Supply	100%	0%	0%	0%	0%	0%	0%	0%
Total	\$13,928,867		\$7,018,430	\$3,330,556	\$869,081	\$302,668	\$548,457	\$659,922	\$237,488	\$268,769
			50%	24%	6%	2%	4%	5%	2%	2%

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Table 8-4: Water Peaking Factors⁶¹

Peaking Factors	System Wide
Base	1.00
Max Day	1.90
Max Hour	2.70
Max Week	1.60
Max Month	1.43

Table 8-5: Water Allocation Factors

Allocation Types	Water Supply	Base	Max Day	Max Hour	Customer Service	Meter Service	Fire	Conservation	Rev Offsets	General	Total
Base		100%	0%	0%							100%
Max Day		47%	43%	0%			10%				100%
Max Hour		33%	30%	27%			10%				100%
Average Use		40%	36%	13%			10%				100%
Water Supply	100%										100%
Customer Service					100%						100%
Meter Service						100%					100%
General										100%	100%
Fire							100%				100%
Rev Offsets									100%		100%
Conservation								100%			100%
Capital	0%	31%	28%	6%	0%	0%	7%	0%	0%	28%	100%
Operating	50%	24%	6%	2%	4%	5%	2%	2%	0%	5%	100%

⁶¹ Water Master Plan 2004 by AKM Consulting Engineers, Table 5-6

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8.5 Appendix 5 – Financial Inputs Extracted from the Financial Plan & COS Model

Table 8-6: Detailed Sewer Operations & Maintenance Expenses

City of San Juan Capistrano Sewer O&M Expenses			Financial Plan Model, DIF & Sewer Rates FY 2014							
Escalation Factors	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020				
	General	3%	3%	3%	3%	3%	3%	3%	3%	
Salary	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Benefits	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Utilities	5%	5%	5%	5%	5%	5%	5%	5%	5%	
CCI	4%	4%	4%	4%	4%	4%	4%	4%	4%	
Overall Growth	5%	5%	5%	5%	5%	5%	5%	5%	5%	

Source: Water_Sewer Budgets FY 14_14 (Mid Term update w_prelim. 12_13 actual)-v2.xlsx
FY 2014 Budget.xlsx sent by Cindy Russell 1/14/14 at 4:33PM

Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Projected	FY 2016 Projected	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
70-SEWER ENTERPRISE FUND										
51500-Finance										
70-51500-66104 (SPECIAL STUDIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-51500-66206 (COLLECTION FEES)	Fixed	General	\$176,950	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Finance:			\$176,950	\$0						
64804-Wastewater Code Inspection Services										
70-64804-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$4,465	\$4,554	\$4,645	\$4,738	\$4,833	\$4,930	\$5,028	\$4,554
70-64804-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-64804-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-64804-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$180	\$189	\$198	\$208	\$219	\$230	\$241	\$189
70-64804-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$870	\$914	\$959	\$1,007	\$1,057	\$1,110	\$1,166	\$914
70-64804-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$130	\$137	\$143	\$150	\$158	\$166	\$174	\$137
70-64804-61290 (RETIREMENT)	Fixed	Benefits	\$1,455	\$1,528	\$1,604	\$1,684	\$1,769	\$1,857	\$1,950	\$1,528
70-64804-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$4,515	\$4,650	\$4,790	\$4,934	\$5,082	\$5,234	\$5,391	\$4,650
Subtotal Wastewater Code Inspection Services:			\$11,615	\$11,972	\$12,340	\$12,722	\$13,118	\$13,527	\$13,951	\$11,972
83409-Engineering-Inspection Svc										
70-83409-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-61290 (RETIREMENT)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83409-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Engineering Inspection Svc:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
83828-Environmental-Eng/NPDES Water Quality										
70-83828-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-61290 (RETIREMENT)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-62409 (MANAGEMENT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-62506 (SUPPORT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-63604 (OTHER FLYERS/BROCHURES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-63704 (OTHER SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-65104 (TRAINING)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-83828-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal NPDES Water Quality:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Projected	FY 2016 Projected	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
70-SEWER ENTERPRISE FUND										
84806-Wastewater - Engineering										
70-84806-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-61290 (RETIREMENT)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84806-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Wastewater Engineering:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
84830-Wastewater - General Services										
70-84830-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61128 (DEFERRED COMPENSATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-61290 (RETIREMENT)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84800-62504 (MICROFILMING)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-84830-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Wastewater General Services:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
93828-Environmental-Eng/NPDES Water Quality										
70-93828-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-61290 (RETIREMENT)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-62409 (MANAGEMENT SERVICES)	Fixed	General	\$5,600	\$5,768	\$5,941	\$6,119	\$6,303	\$6,492	\$6,687	\$5,768
70-93828-62506 (SUPPORT SERVICES)	Fixed	General	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319	\$2,388	\$2,060
70-93828-63604 (OTHER FLYERS/BROCHURES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-63704 (OTHER SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-93828-65104 (TRAINING)	Fixed	General	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$2,575
Subtotal NPDES Water Quality:			\$10,100	\$10,403	\$10,715	\$11,037	\$11,368	\$11,709	\$12,060	\$10,403
94530-Domestic Water-General Services										
70-94530-61126 (WATER CERTIFICATE PAY)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
Subtotal 94530-Domestic Water-General Services			\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
94560-Domestic Water-System Maintenance										
70-94560-64116 (OTHER MAINTENANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal 94560-Domestic Water-System Maintenance			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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70-SEWER ENTERPRISE FUND										
94830-Wastewater-General Services										
70-94830-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$171,890	\$175,328	\$178,834	\$182,411	\$186,059	\$189,780	\$193,576	\$175,328
70-94830-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$7,500	\$7,650	\$7,803	\$7,959	\$8,118	\$8,281	\$8,446	\$7,650
70-94830-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-61117 (EMERGENCY CALL OUT OVERTIME)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-61126 (WATER CERTIFICATE PAY)	Fixed	General	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$2,575
70-94830-61128 (DEFERRED COMPENSATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-61287 (WORKER'S COMP CHARGES)	Fixed	General	\$6,985	\$7,195	\$7,410	\$7,633	\$7,862	\$8,098	\$8,340	\$7,195
70-94830-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$33,685	\$35,369	\$37,138	\$38,995	\$40,944	\$42,992	\$45,141	\$35,369
70-94830-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$5,040	\$5,292	\$5,557	\$5,834	\$6,126	\$6,432	\$6,754	\$5,292
70-94830-61290 (RETIREMENT)	Fixed	Benefits	\$56,085	\$58,889	\$61,834	\$64,925	\$68,172	\$71,580	\$75,159	\$58,889
70-94830-62409 (MANAGEMENT SERVICES)	Fixed	General	\$28,290	\$29,139	\$30,013	\$30,913	\$31,841	\$32,796	\$33,780	\$29,139
70-94830-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-63109 (OTHER REPAIR/MAINT SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-64116 (OTHER MAINTENANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-65102 (PROFESSIONAL MEETINGS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94830-65401 (PROFESSIONAL DUES)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
70-94830-65502 (VEHICLE OPERATIONS CHARGES)	Fixed	General	\$2,627	\$2,706	\$2,787	\$2,871	\$2,957	\$3,045	\$3,137	\$2,706
70-94830-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$33,830	\$34,845	\$35,890	\$36,967	\$38,076	\$39,218	\$40,395	\$34,845
70-94830-66104 (SPECIAL STUDIES)	Fixed	General	\$40,000				\$45,000			\$0
Subtotal General Services:			\$391,432	\$362,077	\$373,101	\$384,518	\$441,345	\$408,598	\$421,296	\$362,077
94834-Wastewater-Strategic Planning										
70-94834-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$11,615	\$11,847	\$12,084	\$12,326	\$12,572	\$12,824	\$13,080	\$11,847
70-94834-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94834-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94834-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94834-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94834-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$470	\$494	\$518	\$544	\$571	\$600	\$630	\$494
70-94834-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$2,275	\$2,389	\$2,508	\$2,634	\$2,765	\$2,904	\$3,049	\$2,389
70-94834-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$340	\$357	\$375	\$394	\$413	\$434	\$456	\$357
70-94834-61290 (RETIREMENT)	Fixed	Benefits	\$3,790	\$3,980	\$4,178	\$4,387	\$4,607	\$4,837	\$5,079	\$3,980
70-94834-62250 (ENGINEERING/ARCH/DESIGN SVCS)	Fixed	General	\$0	\$25,000		\$30,000				\$25,000
70-94834-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$2,235	\$2,302	\$2,371	\$2,442	\$2,516	\$2,591	\$2,669	\$2,302
Subtotal Strategic Planning:			\$20,725	\$46,368	\$22,035	\$52,727	\$23,445	\$24,189	\$24,962	\$46,368
94835-Wastewater-Regulatory Compliance										
70-94835-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$33,700	\$34,374	\$35,061	\$35,763	\$36,478	\$37,208	\$37,952	\$34,374
70-94835-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94835-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94835-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$1,370	\$1,439	\$1,510	\$1,586	\$1,665	\$1,749	\$1,836	\$1,439
70-94835-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$6,605	\$6,935	\$7,282	\$7,646	\$8,028	\$8,430	\$8,851	\$6,935
70-94835-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$990	\$1,040	\$1,091	\$1,146	\$1,203	\$1,264	\$1,327	\$1,040
70-94835-61290 (RETIREMENT)	Fixed	Benefits	\$10,995	\$11,545	\$12,122	\$12,728	\$13,364	\$14,033	\$14,734	\$11,545
70-94835-62603 (OTHER GOV'T AGENCY SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94835-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$6,480	\$6,674	\$6,875	\$7,081	\$7,293	\$7,512	\$7,737	\$6,674
Subtotal Regulatory Compliance:			\$60,140	\$62,006	\$63,942	\$65,950	\$68,033	\$70,194	\$72,437	\$62,006

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Projected	FY 2016 Projected	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
70-SEWER ENTERPRISE FUND										
94854-Wastewater-Lift Stations										
70-94854-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$13,360	\$13,627	\$13,900	\$14,178	\$14,461	\$14,751	\$15,046	\$13,627
70-94854-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94854-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94854-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94854-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$545	\$572	\$601	\$631	\$662	\$696	\$730	\$572
70-94854-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$2,620	\$2,751	\$2,889	\$3,033	\$3,185	\$3,344	\$3,511	\$2,751
70-94854-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$390	\$410	\$430	\$451	\$474	\$498	\$523	\$410
70-94854-61290 (RETIREMENT)	Fixed	Benefits	\$4,360	\$4,578	\$4,807	\$5,047	\$5,300	\$5,565	\$5,843	\$4,578
70-94854-62705 (FACILITY LEASE)	Fixed	General	\$6,000	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956	\$7,164	\$6,180
70-94854-62801 (ELECTRICITY)	Fixed	Utilities	\$5,500	\$5,775	\$6,064	\$6,367	\$6,685	\$7,020	\$7,371	\$5,775
70-94854-62803 (WATER)	Fixed	Utilities	\$4,500	\$4,725	\$4,961	\$5,209	\$5,470	\$5,743	\$6,030	\$4,725
70-94854-64116 (OTHER MAINTENANCE)	Fixed	Benefits	\$30,000	\$31,500	\$33,075	\$34,729	\$36,465	\$38,288	\$40,203	\$31,500
70-94854-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	Benefits	\$2,570	\$2,699	\$2,833	\$2,975	\$3,124	\$3,280	\$3,444	\$2,699
Subtotal Lift Stations:			\$69,845	\$72,816	\$75,925	\$79,177	\$82,579	\$86,139	\$89,865	\$72,816
94855-Wastewater-Plant										
70-94855-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$23,035	\$23,496	\$23,966	\$24,445	\$24,934	\$25,433	\$25,941	\$23,496
70-94855-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94855-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94855-61128 (DEFERRED COMPENSATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94855-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94855-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$935	\$982	\$1,031	\$1,082	\$1,136	\$1,193	\$1,253	\$982
70-94855-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$4,515	\$4,741	\$4,978	\$5,227	\$5,488	\$5,762	\$6,051	\$4,741
70-94855-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$675	\$709	\$744	\$781	\$820	\$861	\$905	\$709
70-94855-61290 (RETIREMENT)	Fixed	Benefits	\$7,515	\$7,891	\$8,285	\$8,700	\$9,135	\$9,591	\$10,071	\$7,891
70-94855-62409 (MANAGEMENT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94855-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$4,545	\$4,681	\$4,822	\$4,966	\$5,115	\$5,269	\$5,427	\$4,681
70-94855-66201 (SOCVA M & O EXPENSES)	Fixed	General	\$1,849,242	\$1,904,719	\$1,961,861	\$2,020,717	\$2,081,338	\$2,143,778	\$2,208,092	\$1,904,719
Subtotal Wastewater Plant:			\$1,890,462	\$1,947,218	\$2,005,686	\$2,065,918	\$2,127,967	\$2,191,888	\$2,257,739	\$1,947,218
94860-Wastewater-System Maintenance										
70-94860-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$58,550	\$59,721	\$60,915	\$62,134	\$63,376	\$64,644	\$65,937	\$59,721
70-94860-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$2,380	\$2,499	\$2,624	\$2,755	\$2,893	\$3,038	\$3,189	\$2,499
70-94860-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$11,475	\$12,049	\$12,651	\$13,284	\$13,948	\$14,645	\$15,378	\$12,049
70-94860-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$1,715	\$1,801	\$1,891	\$1,985	\$2,085	\$2,189	\$2,298	\$1,801
70-94860-61290 (RETIREMENT)	Fixed	Salary	\$19,105	\$19,487	\$19,877	\$20,274	\$20,680	\$21,093	\$21,515	\$19,487
70-94860-62501 (OUTSIDE CONTRACT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-63107 (AGRICULTURE/LANDSCAPE SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-63109 (OTHER REPAIR/MAINT SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-63202 (SAFETY EQUIPMENT)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
70-94860-64111 (REPAIR/MAINT - PIPELINES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
70-94860-64116 (OTHER MAINTENANCE)	Fixed	General	\$344,729	\$355,071	\$365,723	\$376,695	\$387,996	\$399,635	\$411,624	\$355,071
70-94860-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$11,255	\$11,593	\$11,940	\$12,299	\$12,668	\$13,048	\$13,439	\$11,593
Subtotal System Maintenance:			\$454,209	\$467,370	\$480,926	\$494,889	\$509,272	\$524,088	\$539,351	\$467,370
94870-Wastewater-Emergencies and After-Hours Response										
70-94870-61122 (STAND-BY PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal 94870-Wastewater-Emergencies and After-Hours Response			\$0							
Allocated Costs to Sewer from Water										
Sewer Administrative Service Cost Allocation				\$48,856	\$50,441	\$48,163	\$50,157	\$50,534	\$52,243	\$48,856
Sewer Customer Service Cost Allocation				\$222,564	\$229,345	\$236,351	\$243,592	\$251,076	\$258,811	\$222,564
Sewer Misc Rev				-\$51,745	-\$51,745	-\$51,745	-\$51,745	-\$51,745	-\$51,745	-\$51,745
Subtotal Allocated Costs to Sewer from Water			\$0	\$219,675	\$228,041	\$232,770	\$242,005	\$249,865	\$259,309	\$219,675
Total Wastewater O&M (Fund 70):			\$3,090,478	\$3,205,056	\$3,278,017	\$3,405,171	\$3,524,758	\$3,585,995	\$3,696,939	\$3,205,056
				3.7%	2.3%	3.9%	3.5%	1.7%	3.1%	

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Table 8-7: Detailed Water Operations and Maintenance Expenses

City of San Juan Capistrano Financial Plan Model, DIF & Sewer Rates
Water O&M Expenses FY 2014

Escalation Factors	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
General	3%	3%	3%	3%	3%	3%
Salary	2%	2%	2%	2%	2%	2%
Benefits	5%	5%	5%	5%	5%	5%
Utilities	5%	5%	5%	5%	5%	5%
CCI	4%	4%	4%	4%	4%	4%
Water Demand Factor	0%	0%	0%	0%	0%	0%
	103%	106%	109%	113%	116%	119%

Source: Water_Sewer Budgets FY_12_14 (Mid Term update w_prelim_12_13 actual)-v2.xlsx
FY 2014 Budget.xlsx sent by Cindy Russell 1/14/14 at 4:33PM

Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
10300-Personnel										
60-10300-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
Subtotal Personnel:			\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
20700-City Attorney										
60-20700-62401 (LEGAL SERVICES)	Fixed	General	\$127,985	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$50,000
Subtotal City Attorney:			\$127,985	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$50,000
51400-Administrative Services Administration										
60-51400-62402 (FINANCIAL SERVICES)	Fixed	General	\$2,950	\$3,039	\$3,130	\$3,224	\$3,320	\$3,420	\$3,522	\$3,039
60-51400-65503 (GENERAL LIABILITY)	Fixed	General	\$414,180	\$426,605	\$439,404	\$452,586	\$466,163	\$480,148	\$494,553	\$426,605
60-51400-66203 (DEPRECIATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51400-66205 (AMORTIZATION/EXCESS CAPACITY)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal City Administrative Services Administration:			\$417,130	\$429,644	\$442,533	\$455,809	\$469,483	\$483,568	\$498,075	\$429,644
51700-Customer Service										
60-51700-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$163,950	\$167,229	\$170,574	\$173,985	\$177,465	\$181,014	\$184,634	\$167,229
60-51700-61112 (PART-TIME "A" SALARIES)	Fixed	Salary	\$3,080	\$3,142	\$3,204	\$3,269	\$3,334	\$3,401	\$3,469	\$3,142
60-51700-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$6,885	\$7,023	\$7,163	\$7,306	\$7,453	\$7,602	\$7,754	\$7,023
60-51700-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-61123 (AUTOMOBILE ALLOWANCE)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-61128 (DEFERRED COMPENSATION)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-61129 (04% VACATION PAY)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-61190 (TEMPORARY STAFFING SERVICES)	Fixed	Salary	\$4,120	\$4,202	\$4,286	\$4,372	\$4,460	\$4,549	\$4,640	\$4,202
60-51700-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$7,010	\$7,361	\$7,729	\$8,115	\$8,521	\$8,947	\$9,394	\$7,361
60-51700-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$33,200	\$34,860	\$36,603	\$38,433	\$40,355	\$42,373	\$44,491	\$34,860
60-51700-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$5,025	\$5,276	\$5,540	\$5,817	\$6,108	\$6,413	\$6,734	\$5,276
60-51700-61290 (RETIREMENT)	Fixed	Benefits	\$56,200	\$59,010	\$61,961	\$65,059	\$68,311	\$71,727	\$75,313	\$59,010
60-51700-62101 (LEGAL NOTICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-62402 (FINANCIAL SERVICES)	Fixed	General	\$111,050	\$95,382	\$98,243	\$101,191	\$104,226	\$107,353	\$110,574	\$95,382
60-51700-62402 (FINANCIAL SERVICES)	Fixed	General	\$19,000	\$19,000	\$19,570	\$20,157	\$20,762	\$21,385	\$22,026	\$19,000
60-51700-62403 (NETWORK/COMPUTER SERVICES)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
60-51700-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$20,700	\$21,321	\$21,961	\$22,619	\$23,298	\$23,997	\$24,717	\$21,321
60-51700-62512 (METER READING EXPENSE)	Fixed	General	\$128,000	\$131,840	\$135,795	\$139,869	\$144,065	\$148,387	\$152,839	\$131,840
60-51700-62804 (TELEPHONE)	Fixed	Utilities	\$810	\$851	\$893	\$938	\$985	\$1,034	\$1,085	\$851
60-51700-63501 (GENERAL OFFICE SUPPLIES)	Fixed	General	\$450	\$464	\$477	\$492	\$506	\$522	\$537	\$464
60-51700-63503 (POSTAGE/MESSENGER SUPPLIES)	Fixed	General	\$46,000	\$47,380	\$48,801	\$50,265	\$51,773	\$53,327	\$54,926	\$47,380
60-51700-63601 (BUSINESS CARDS)	Fixed	General	\$100	\$103	\$106	\$109	\$113	\$116	\$119	\$103
60-51700-63606 (FORMS)	Fixed	General	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$2,575
60-51700-65104 (TRAINING)	Fixed	General	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319	\$2,388	\$2,060
60-51700-65107 (MILEAGE REIMBURSEMENTS)	Fixed	General	\$100	\$103	\$106	\$109	\$113	\$116	\$119	\$103
60-51700-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$32,565	\$33,542	\$34,548	\$35,585	\$36,652	\$37,752	\$38,884	\$33,542
60-51700-66206 (COLLECTION FEES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-51700-66207 (BAD DEBT EXPENSE)	Fixed	General	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531	\$69,556	\$71,643	\$61,800
Subtotal Customer Service:			\$686,745	\$707,612	\$729,172	\$751,449	\$774,471	\$798,263	\$822,855	\$707,612

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
64505-Water Code Enforcement										
60-64505-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$7,735	\$7,890	\$8,047	\$8,208	\$8,373	\$8,540	\$8,711	\$7,890
60-64505-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-64505-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-64505-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$315	\$331	\$347	\$365	\$383	\$402	\$422	\$331
60-64505-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$1,515	\$1,591	\$1,670	\$1,754	\$1,841	\$1,934	\$2,030	\$1,591
60-64505-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$225	\$236	\$248	\$260	\$273	\$287	\$302	\$236
60-64505-61290 (RETIREMENT)	Fixed	Benefits	\$2,525	\$2,651	\$2,784	\$2,923	\$3,069	\$3,223	\$3,384	\$2,651
60-64505-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$7,825	\$8,060	\$8,302	\$8,551	\$8,807	\$9,071	\$9,343	\$8,060
Subtotal Water Code Enforcement:			\$20,140	\$20,758	\$21,398	\$22,061	\$22,747	\$23,457	\$24,192	\$20,758
94530-Domestic Water-General Services										
60-94530-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$394,015	\$401,895	\$409,933	\$418,132	\$426,495	\$435,024	\$443,725	\$401,895
60-94530-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$40,000	\$40,800	\$41,616	\$42,448	\$43,297	\$44,163	\$45,046	\$40,800
60-94530-61116 (DOUBLE TIME)	Fixed	Salary	\$7,500	\$7,650	\$7,803	\$7,959	\$8,118	\$8,281	\$8,446	\$7,650
60-94530-61117 (EMERGENCY CALL OUT OVERTIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$7,800	\$8,034	\$8,275	\$8,523	\$8,779	\$9,042	\$9,314	\$8,034
60-94530-61126 (WATER CERTIFICATE PAY)	Fixed	General	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$15,450
60-94530-61128 (DEFERRED COMPENSATION)	Fixed	Benefits	\$3,960	\$4,158	\$4,366	\$4,584	\$4,813	\$5,054	\$5,307	\$4,158
60-94530-61129 (04% VACATION PAY)	Fixed	Benefits	\$4,620	\$4,851	\$5,094	\$5,348	\$5,616	\$5,896	\$6,191	\$4,851
60-94530-61231 (UNIFORMS/BOOTS)	Fixed	Benefits	\$10,000	\$10,500	\$11,025	\$11,576	\$12,155	\$12,763	\$13,401	\$10,500
60-94530-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$15,965	\$16,763	\$17,601	\$18,481	\$19,406	\$20,376	\$21,395	\$16,763
60-94530-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$76,635	\$80,467	\$84,490	\$88,715	\$93,150	\$97,808	\$102,698	\$80,467
60-94530-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$11,460	\$12,033	\$12,635	\$13,266	\$13,930	\$14,626	\$15,357	\$12,033
60-94530-61290 (RETIREMENT)	Fixed	Benefits	\$127,590	\$133,970	\$140,668	\$147,701	\$155,086	\$162,841	\$170,983	\$133,970
60-94530-62220 (PLAN CHECK SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-62370 (SPECIAL CERTIFICATION COSTS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-62409 (MANAGEMENT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-62504 (MICROFILMING/IMAGING)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-62603 (OTHER GOV'T AGENCY SERVICES)	Fixed	General	\$7,700	\$7,931	\$8,169	\$8,414	\$8,666	\$8,926	\$9,194	\$7,931
60-94530-62805 (CELLULAR PHONES)	Fixed	General	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$15,450
60-94530-63201 (SMALL TOOLS & EQUIPMENT)	Fixed	General	\$100	\$103	\$106	\$109	\$113	\$116	\$119	\$103
60-94530-63206 (METERS & METER BOXES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-63501 (GENERAL OFFICE SUPPLIES)	Fixed	General	\$6,000	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956	\$7,164	\$6,180
60-94530-63503 (POSTAGE/MESSENGER SUPPLIES)	Fixed	General	\$450	\$464	\$477	\$492	\$506	\$522	\$537	\$464
60-94530-63601 (BUSINESS CARDS)	Fixed	General	\$250	\$258	\$265	\$273	\$281	\$290	\$299	\$258
60-94530-63608 (FILM, MAPS AND BLUEPRINTS)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94530-63704 (OTHER SUPPLIES)	Fixed	General	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319	\$2,388	\$2,060
60-94530-64210 (OTHER REPAIRS)	Fixed	General	\$13,650	\$14,060	\$14,481	\$14,916	\$15,363	\$15,824	\$16,299	\$14,060
60-94530-65101 (ANNUAL CONFERENCES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-65102 (PROFESSIONAL MEETINGS)	Fixed	General	\$600	\$618	\$637	\$656	\$675	\$696	\$716	\$618
60-94530-65104 (TRAINING)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
60-94530-65107 (MILEAGE REIMBURSEMENTS)	Fixed	General	\$300	\$309	\$318	\$328	\$338	\$348	\$358	\$309
60-94530-65201 (SUBSCRIPTION-PRNTD MATERIAL)	Fixed	General	\$875	\$901	\$928	\$956	\$985	\$1,014	\$1,045	\$901
60-94530-65302 (OTHER CITY REPRESENTATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94530-65401 (PROFESSIONAL DUES)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
60-94530-65501 (FIXED ASSET/OCCUPANCY CHGS)	Fixed	General	\$73,037	\$75,228	\$77,485	\$79,810	\$82,204	\$84,670	\$87,210	\$75,228
60-94530-65502 (VEHICLE OPERATIONS CHARGES)	Fixed	General	\$140,608	\$144,826	\$149,171	\$153,646	\$158,256	\$163,003	\$167,893	\$144,826
60-94530-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$74,415	\$76,647	\$78,947	\$81,315	\$83,755	\$86,267	\$88,855	\$76,647
60-94530-65505 (IT/COMMUNICATIONS CHARGES)	Fixed	General	\$213,884	\$220,301	\$226,910	\$233,717	\$240,728	\$247,950	\$255,389	\$220,301
60-94530-66104 (SPECIAL STUDIES)	Fixed	General	\$80,000				\$90,000			\$0
60-94530-67702 (VEHICLE ACCESSORIES/EQUIPMENT)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
Subtotal Domestic Water - General Services:			\$1,354,914	\$1,313,751	\$1,353,915	\$1,395,456	\$1,528,428	\$1,482,885	\$1,528,884	\$1,313,751

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
94532-Domestic Water-Water Conservation										
60-94532-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$98,320	\$100,286	\$102,292	\$104,338	\$106,425	\$108,553	\$110,724	\$100,286
60-94532-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$2,500	\$2,550	\$2,601	\$2,653	\$2,706	\$2,760	\$2,815	\$2,550
60-94532-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94532-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94532-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$240	\$245	\$250	\$255	\$260	\$265	\$270	\$245
60-94532-61129 (04% VACATION PAY)	Fixed	Salary	\$310	\$316	\$323	\$329	\$336	\$342	\$349	\$316
60-94532-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$3,995	\$4,075	\$4,156	\$4,240	\$4,324	\$4,411	\$4,499	\$4,075
60-94532-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$19,270	\$20,234	\$21,245	\$22,307	\$23,423	\$24,594	\$25,824	\$20,234
60-94532-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$2,880	\$3,024	\$3,175	\$3,334	\$3,501	\$3,676	\$3,859	\$3,024
60-94532-61290 (RETIREMENT)	Fixed	Benefits	\$32,080	\$33,684	\$35,368	\$37,137	\$38,993	\$40,943	\$42,990	\$33,684
60-94532-62104 (GENERAL ADVERTISING)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94532-62409 (MANAGEMENT SERVICES)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
60-94532-63604 (OTHER FLYERS/BROCHURES)	Fixed	General	\$6,000	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956	\$7,164	\$6,180
60-94532-65101 (ANNUAL CONFERENCES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94532-65102 (PROFESSIONAL MEETINGS)	Fixed	General	\$600	\$618	\$637	\$656	\$675	\$696	\$716	\$618
60-94532-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$18,900	\$19,467	\$20,051	\$20,653	\$21,272	\$21,910	\$22,568	\$19,467
60-94532-66208 (WATER CONSERVATION EXPENSE)	Fixed	General	\$105,000	\$75,000	\$77,250	\$79,568	\$81,955	\$84,413	\$86,946	\$75,000
Subtotal Domestic Water - Water Conservation:			\$293,095	\$268,769	\$276,896	\$285,302	\$293,999	\$302,997	\$312,308	\$268,769
94533-Domestic Water-Field Customer Service										
60-94533-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$39,110	\$39,892	\$40,690	\$41,504	\$42,334	\$43,181	\$44,044	\$39,892
60-94533-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$500	\$510	\$520	\$531	\$541	\$552	\$563	\$510
60-94533-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94533-61117 (EMERGENCY CALL OUT OVERTIME)	Fixed	Salary	\$1,500	\$1,530	\$1,561	\$1,592	\$1,624	\$1,656	\$1,689	\$1,530
60-94533-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94533-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94533-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$1,590	\$1,670	\$1,753	\$1,841	\$1,933	\$2,029	\$2,131	\$1,670
60-94533-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$7,665	\$8,048	\$8,451	\$8,873	\$9,317	\$9,783	\$10,272	\$8,048
60-94533-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$1,145	\$1,202	\$1,262	\$1,325	\$1,392	\$1,461	\$1,534	\$1,202
60-94533-61290 (RETIREMENT)	Fixed	Benefits	\$12,760	\$13,398	\$14,068	\$14,771	\$15,510	\$16,285	\$17,100	\$13,398
60-94533-63201 (SMALL TOOLS & EQUIPMENT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94533-64205 (REPAIR/MAINT-METER BOXES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94533-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$7,520	\$7,746	\$7,978	\$8,217	\$8,464	\$8,718	\$8,979	\$7,746
Subtotal Domestic Water-Field Customer Service:			\$71,790	\$73,996	\$76,283	\$78,654	\$81,114	\$83,665	\$86,312	\$73,996
94534-Domestic Water-Strategic Planning										
60-94534-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-61288 (HEALTH INSURANCE CHGS)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-61289 (OTHER BENEFITS CHGS)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-61290 (RETIREMENT)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-62250 (ENGINEERING/ARCH/DESIGN SVCS)	Fixed	Salary	\$0	\$55,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$55,000
60-94534-62260 (SURVEYING SERVICES)	Fixed	Salary	\$2,500	\$2,550	\$2,601	\$2,653	\$2,706	\$2,760	\$2,815	\$2,550
60-94534-62409 (MANAGEMENT SERVICES)	Fixed	Benefits	\$42,430	\$44,552	\$46,779	\$49,118	\$51,574	\$54,153	\$56,860	\$44,552
60-94534-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94534-62604 (SJB M & O EXPENSES)	Fixed	General	\$90,500	\$93,215	\$96,011	\$98,892	\$101,859	\$104,914	\$108,062	\$93,215
60-94534-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Domestic Water - Strategic Planning:			\$135,430	\$195,317	\$145,392	\$180,663	\$156,139	\$161,827	\$167,737	\$195,317

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
94535-Domestic Water-Regulatory Compliance										
60-94535-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$54,425	\$55,514	\$56,624	\$57,756	\$58,911	\$60,090	\$61,291	\$55,514
60-94535-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$2,360	\$2,478	\$2,602	\$2,732	\$2,869	\$3,012	\$3,163	\$2,478
60-94535-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$10,670	\$11,204	\$11,764	\$12,352	\$12,969	\$13,618	\$14,299	\$11,204
60-94535-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$1,595	\$1,675	\$1,758	\$1,846	\$1,939	\$2,036	\$2,137	\$1,675
60-94535-61290 (RETIREMENT)	Fixed	Benefits	\$17,760	\$18,648	\$19,580	\$20,559	\$21,587	\$22,667	\$23,800	\$18,648
60-94535-62603 (OTHER GOV'T AGENCY SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$11,170	\$11,505	\$11,850	\$12,206	\$12,572	\$12,949	\$13,338	\$11,505
60-94535-66201 (SOCWA M & O EXPENSES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94535-66209 (WATER QUALITY FEE)	Fixed	General	\$24,000	\$24,720	\$25,462	\$26,225	\$27,012	\$27,823	\$28,657	\$24,720
Subtotal Domestic Water - Regulatory Compliance:			\$121,980	\$125,743	\$129,640	\$133,677	\$137,860	\$142,194	\$146,685	\$125,743
94550-Domestic Water-Import Water Supply										
60-94550-62801 (ELECTRICITY)	Variable	Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94550-64112 (REPAIR/MAINT-REGIONAL PIPELINE)	Fixed	General	\$180,258	\$225,000	\$231,750	\$238,703	\$245,864	\$253,239	\$260,837	\$225,000
60-94550-66210 (MWDOC OPERATING CHARGES)	Fixed	General	\$125,897	\$129,674	\$133,564	\$137,571	\$141,698	\$145,949	\$150,328	\$129,674
60-94550-66211 (COMMODITY CHARGES-MWD)	Calculated	Calculated	\$3,413,812	\$2,941,382	\$3,055,363	\$3,205,587	\$3,363,730	\$3,529,794	\$3,703,782	\$2,941,382
60-94550-66212 (READINESS TO SERVICE CHG-MWD)	Calculated	Calculated	\$327,700	\$337,531	\$347,657	\$358,087	\$368,829	\$379,894	\$391,291	\$337,531
Subtotal Domestic Water - Import Water Supply			\$4,047,667	\$3,633,587	\$3,768,334	\$3,939,948	\$4,120,121	\$4,308,877	\$4,506,237	\$3,633,587
94551-Domestic Water-Distribution and Pumping										
60-94551-61111 (FULL-TIME SALARIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94551-61287 (WORKER'S COMP CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94551-61288 (HEALTH INSURANCE CHGS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94551-61289 (OTHER BENEFITS CHGS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94551-61290 (RETIREMENT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94551-62801 (ELECTRICITY)	Variable	Utilities	\$220,000	\$231,000	\$242,550	\$254,678	\$267,411	\$280,782	\$294,821	\$231,000
60-94551-62804 (TELEPHONE)	Fixed	General	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251	\$2,319	\$2,388	\$2,060
60-94551-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Domestic Water - Distribution and Pumping:			\$222,000	\$233,060	\$244,672	\$256,863	\$269,662	\$283,100	\$297,209	\$233,060
94552-Domestic Water-System Water Quality										
60-94552-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$21,440	\$21,869	\$22,306	\$22,752	\$23,207	\$23,671	\$24,145	\$21,869
60-94552-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94552-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94552-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94552-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$945	\$992	\$1,042	\$1,094	\$1,149	\$1,206	\$1,266	\$992
60-94552-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$4,200	\$4,410	\$4,631	\$4,862	\$5,105	\$5,360	\$5,628	\$4,410
60-94552-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$625	\$656	\$689	\$724	\$760	\$798	\$838	\$656
60-94552-61290 (RETIREMENT)	Fixed	Benefits	\$6,995	\$7,345	\$7,712	\$8,098	\$8,502	\$8,928	\$9,374	\$7,345
60-94552-62513 (LABORATORY/TESTING EXPENSE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94552-63204 (VALVE & HYDRANT MAINTENANCE)	Fixed	General	\$120,000	\$123,600	\$127,308	\$131,127	\$135,061	\$139,113	\$143,286	\$123,600
60-94552-63302 (CHEMICAL SUPPLIES)	Fixed	Utilities	\$1,000	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276	\$1,340	\$1,050
60-94552-63604 (OTHER FLYERS/BROCHURES)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
60-94552-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$4,475	\$4,609	\$4,748	\$4,890	\$5,037	\$5,188	\$5,343	\$4,609
Subtotal Domestic Water - System Water Quality:			\$160,180	\$165,046	\$170,068	\$175,251	\$180,599	\$186,120	\$191,818	\$165,046

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
94553-Domestic Water-Cross Connection and Backflow Connection										
60-94553-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$11,220	\$11,444	\$11,673	\$11,907	\$12,145	\$12,388	\$12,636	\$11,444
60-94553-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94553-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94553-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94553-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$455	\$478	\$502	\$527	\$553	\$581	\$610	\$478
60-94553-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$2,200	\$2,310	\$2,426	\$2,547	\$2,674	\$2,808	\$2,948	\$2,310
60-94553-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$330	\$347	\$364	\$382	\$401	\$421	\$442	\$347
60-94553-61290 (RETIREMENT)	Fixed	Benefits	\$3,660	\$3,843	\$4,035	\$4,237	\$4,449	\$4,671	\$4,905	\$3,843
60-94553-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$38,000	\$39,140	\$40,314	\$41,524	\$42,769	\$44,052	\$45,374	\$39,140
60-94553-63102 (PLUMBING/IRRIGATION SUPPLIES)	Fixed	General	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739	\$1,791	\$1,545
60-94553-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$2,160	\$2,225	\$2,292	\$2,360	\$2,431	\$2,504	\$2,579	\$2,225
Subtotal Domestic Water-Cross Connection and Backflow Coni			\$59,525	\$61,331	\$63,196	\$65,122	\$67,111	\$69,164	\$71,285	\$61,331
94560-Domestic Water-System Maintenance										
60-94560-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$139,530	\$142,321	\$145,167	\$148,070	\$151,032	\$154,052	\$157,133	\$142,321
60-94560-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$5,670	\$5,954	\$6,251	\$6,564	\$6,892	\$7,237	\$7,598	\$5,954
60-94560-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$27,345	\$28,712	\$30,148	\$31,655	\$33,238	\$34,900	\$36,645	\$28,712
60-94560-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$4,090	\$4,295	\$4,509	\$4,735	\$4,971	\$5,220	\$5,481	\$4,295
60-94560-61290 (RETIREMENT)	Fixed	Benefits	\$45,525	\$47,801	\$50,191	\$52,701	\$55,336	\$58,103	\$61,008	\$47,801
60-94560-62410 (OUTSIDE CLERICAL SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-62603 (OTHER GOV'T AGENCY SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-62705 (FACILITY LEASE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-62706 (OPERATING EQUIPMENT RENTAL)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
60-94560-62806 (REFUSE DISPOSAL)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
60-94560-63108 (CONSTRUCTION SUPPLIES)	Fixed	General	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$15,450
60-94560-63201 (SMALL TOOLS & EQUIPMENT)	Fixed	General	\$8,000	\$8,240	\$8,487	\$8,742	\$9,004	\$9,274	\$9,552	\$8,240
60-94560-63202 (SAFETY EQUIPMENT)	Fixed	General	\$6,000	\$6,180	\$6,365	\$6,556	\$6,753	\$6,956	\$7,164	\$6,180
60-94560-63203 (PIPES AND FITTINGS)	Fixed	General	\$75,000	\$77,250	\$79,568	\$81,955	\$84,413	\$86,946	\$89,554	\$77,250
60-94560-63204 (VALVE & HYDRANT MAINTENANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-63206 (METERS & METER BOXES)	Fixed	General	\$50,000	\$90,000	\$125,000	\$100,000	\$100,000	\$100,000	\$100,000	\$90,000
60-94560-63302 (CHEMICAL SUPPLIES)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94560-63501 (GENERAL OFFICE SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-64110 (PRV MAINTENANCE)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
60-94560-64111 (REPAIR/MAINT-PIPELINES)	Fixed	General	\$90,000	\$92,700	\$95,481	\$98,345	\$101,296	\$104,335	\$107,465	\$92,700
60-94560-64116 (OTHER MAINTENANCE)	Fixed	General	\$105,000	\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927	\$100,000
60-94560-64205 (REPAIR/MAINT-METER BOXES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94560-64210 (OTHER REPAIRS)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94560-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$26,825	\$27,630	\$28,459	\$29,312	\$30,192	\$31,098	\$32,030	\$27,630
Subtotal Domestic Water-System Maintenance			\$610,985	\$659,922	\$712,332	\$705,322	\$723,914	\$743,130	\$762,992	\$659,922

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS										
94561-Domestic Water-Well Maintenance										
60-94561-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$22,860	\$23,317	\$23,784	\$24,259	\$24,744	\$25,239	\$25,744	\$23,317
60-94561-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94561-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94561-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94561-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$930	\$977	\$1,025	\$1,077	\$1,130	\$1,187	\$1,246	\$977
60-94561-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$4,480	\$4,704	\$4,939	\$5,186	\$5,445	\$5,718	\$6,004	\$4,704
60-94561-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$670	\$704	\$739	\$776	\$814	\$855	\$898	\$704
60-94561-61290 (RETIREMENT)	Fixed	Benefits	\$7,460	\$7,833	\$8,225	\$8,636	\$9,068	\$9,521	\$9,997	\$7,833
60-94561-62801 (ELECTRICITY)	Variable	Utilities	\$50,000	\$52,500	\$55,125	\$57,881	\$60,775	\$63,814	\$67,005	\$52,500
60-94561-63202 (CHEMICAL SUPPLIES)	Variable	Utilities	\$1,000	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276	\$1,340	\$1,050
60-94561-64110 (PRV MAINTENANCE)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94561-64113 (GROUNDS MAINTENANCE)	Fixed	General	\$1,800	\$1,854	\$1,910	\$1,967	\$2,026	\$2,087	\$2,149	\$1,854
60-94561-64115 (BUILDING MAINTENANCE)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
60-94561-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$4,395	\$4,527	\$4,663	\$4,803	\$4,947	\$5,095	\$5,248	\$4,527
Subtotal Domestic Water - Well Maintenance:			\$99,595	\$103,645	\$107,877	\$112,298	\$116,919	\$121,748	\$126,795	\$103,645
94562-Domestic Water-Reservoir Maintenance										
60-94562-61111 (FULL-TIME SALARIES)	Fixed	General	\$47,035	\$48,446	\$49,899	\$51,396	\$52,938	\$54,526	\$56,162	\$48,446
60-94562-61115 (OVERTIME-REGULAR)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-61128 (DEFERRED COMPENSATION)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-61129 (04% VACATION PAY)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-61287 (WORKER'S COMP CHARGES)	Fixed	General	\$1,910	\$1,967	\$2,026	\$2,087	\$2,150	\$2,214	\$2,281	\$1,967
60-94562-61288 (HEALTH INSURANCE CHGS)	Fixed	General	\$9,220	\$9,497	\$9,781	\$10,075	\$10,377	\$10,689	\$11,009	\$9,497
60-94562-61289 (OTHER BENEFITS CHGS)	Fixed	General	\$1,380	\$1,421	\$1,464	\$1,508	\$1,553	\$1,600	\$1,648	\$1,421
60-94562-61290 (RETIREMENT)	Fixed	General	\$15,350	\$15,811	\$16,285	\$16,773	\$17,277	\$17,795	\$18,329	\$15,811
60-94562-62801 (ELECTRICITY)	Variable	Utilities	\$35,000	\$36,750	\$38,588	\$40,517	\$42,543	\$44,670	\$46,903	\$36,750
60-94562-62803 (WATER)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-63202 (SAFETY EQUIPMENT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-63204 (VALVE & HYDRANT MAINTENANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94562-63302 (CHEMICAL SUPPLIES)	Variable	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
60-94562-64106 (REPAIRS/MAINT-SCADA SYSTEM)	Fixed	General	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939	\$4,057	\$4,179	\$3,605
60-94562-64108 (REPAIR/MAINT-RESERVOIRS)	Fixed	General	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778	\$35,822	\$30,900
60-94562-64110 (PRV MAINTENANCE)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94562-64113 (GROUNDS MAINTENANCE)	Fixed	General	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$25,750
60-94562-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$9,040	\$9,311	\$9,591	\$9,878	\$10,175	\$10,480	\$10,794	\$9,311
Subtotal Domestic Water-Reservoir Maintenance			\$178,935	\$185,003	\$191,288	\$197,799	\$204,543	\$211,530	\$218,769	\$185,003
94563-Domestic Water-Preventative Maintenance										
60-94563-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$101,440	\$103,469	\$105,538	\$107,649	\$109,802	\$111,998	\$114,238	\$103,469
60-94563-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94563-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94563-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94563-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$4,120	\$4,202	\$4,286	\$4,372	\$4,460	\$4,549	\$4,640	\$4,202
60-94563-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$19,880	\$20,874	\$21,918	\$23,014	\$24,164	\$25,372	\$26,641	\$20,874
60-94563-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$2,975	\$3,124	\$3,280	\$3,444	\$3,616	\$3,797	\$3,987	\$3,124
60-94563-61290 (RETIREMENT)	Fixed	Benefits	\$33,100	\$34,755	\$36,493	\$38,317	\$40,233	\$42,245	\$44,357	\$34,755
60-94563-63204 (VALVE & HYDRANT MAINTENANCE)	Fixed	General	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$20,600
60-94563-64110 (PRV MAINTENANCE)	Fixed	General	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778	\$35,822	\$30,900
60-94563-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$19,500	\$20,085	\$20,688	\$21,308	\$21,947	\$22,606	\$23,284	\$20,085
Subtotal Domestic Water - Preventative Maintenance:			\$231,015	\$238,009	\$245,248	\$252,741	\$260,498	\$268,531	\$276,849	\$238,009

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60 WATER ENTERPRISE OPERATIONS										
94564-Domestic Water-Booster Facilities Maintenance										
60-94564-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$45,890	\$46,808	\$47,744	\$48,699	\$49,673	\$50,666	\$51,680	\$46,808
60-94564-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94564-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94564-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94564-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$1,865	\$1,958	\$2,056	\$2,159	\$2,267	\$2,380	\$2,499	\$1,958
60-94564-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$8,995	\$9,445	\$9,917	\$10,413	\$10,933	\$11,480	\$12,054	\$9,445
60-94564-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$1,345	\$1,412	\$1,483	\$1,557	\$1,635	\$1,717	\$1,802	\$1,412
60-94564-61290 (RETIREMENT)	Fixed	Benefits	\$14,975	\$15,724	\$16,510	\$17,335	\$18,202	\$19,112	\$20,068	\$15,724
60-94564-62250 (ENGINEERING/ARCH/DESIGN SVCS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94564-63205 (PUMPS)	Fixed	General	\$15,000	\$15,450	\$15,914	\$16,391	\$16,883	\$17,389	\$17,911	\$15,450
60-94564-64103 (MACHINERY & EQUIPMENT MAINT)	Fixed	General	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739	\$1,791	\$1,545
60-94564-64106 (REPAIRS/MAINT-SCADA SYSTEM)	Fixed	General	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$25,750
60-94564-64107 (REPAIRS/MAINT-BOOSTER SYSTEM)	Fixed	General	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$25,750
60-94564-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$8,825	\$9,090	\$9,362	\$9,643	\$9,933	\$10,231	\$10,538	\$9,090
Subtotal Domestic Water - Booster Facilities Maintenance:			\$148,395	\$152,932	\$157,622	\$162,473	\$167,489	\$172,678	\$178,045	\$152,932
94570-Domestic Water-Emergencies and After-Hours Response										
60-94570-61122 (STAND-BY PAY)	Fixed	General	\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$25,750
Subtotal Domestic Water - Emergencies and After Hours Resp			\$25,000	\$25,750	\$26,523	\$27,318	\$28,138	\$28,982	\$29,851	\$25,750
94661-Recycled Water-Well Maintenance										
60-94661-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$3,505	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61287 (WORKER'S COMP CHARGES)	Fixed	Salary	\$140	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61288 (HEALTH INSURANCE CHGS)	Fixed	General	\$690	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61289 (OTHER BENEFITS CHGS)	Fixed	General	\$105	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61290 (RETIREMENT)	Fixed	Benefits	\$1,145	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-62801 (ELECTRICITY)	Fixed	Benefits	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-64106 (REPAIRS/MAINT-SCADA SYSTEM)	Fixed	Benefits	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-64109 (REPAIRS/MAINT-WELLS)	Fixed	Benefits	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-64110 (PRV MAINTENANCE)	Fixed	Benefits	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-64113 (GROUNDS MAINTENANCE)	Fixed	Benefits	\$400	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-64115 (BUILDING MAINTENANCE)	Fixed	Benefits	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$675	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Recycled Water - Well Maintenance:			\$70,660	\$0						
Allocated Costs from Water										
RW Administrative Service Cost Allocation				-\$6,094	-\$5,300	-\$5,606	-\$5,177	-\$5,475	-\$5,719	-\$6,094
RW Customer Service Cost Allocation				-\$10,588	-\$10,910	-\$11,244	-\$11,588	-\$11,944	-\$12,312	-\$10,588
RW Misc Rev				\$468	\$468	\$468	\$468	\$468	\$468	\$468
Sewer Administrative Service Cost Allocation				-\$48,856	-\$50,441	-\$48,163	-\$50,157	-\$50,534	-\$52,243	-\$48,856
Sewer Customer Service Cost Allocation				-\$222,564	-\$229,345	-\$236,351	-\$243,592	-\$251,076	-\$258,811	-\$222,564
Sewer Misc Rev				\$51,745	\$51,745	\$51,745	\$51,745	\$51,745	\$51,745	\$51,745
Subtotal Allocated Costs from Water			\$0	-\$235,889	-\$243,783	-\$249,152	-\$258,302	-\$266,816	-\$276,872	-\$235,889
Total Fund 60: Water Operations:			\$9,083,666	\$8,408,501	\$8,669,135	\$8,949,600	\$9,345,494	\$9,606,478	\$9,970,626	\$8,408,501

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
61-WATER ENTERPRISE-DEBT SVC FUND										
61-00000-68301 (LEASE PYMT-SJCPFA SERIES 2002)	Fixed	General								\$0
61-00000-68302 (LEASE PYMT-SJCPFA SERIES 2004)	Fixed	General								\$0
61-00000-68304 (LEASE PYMT-SJCPFA SERIES 2009)	Fixed	General								\$0
61-00000-68305 (LEASE PYMT-SJCPFA (2011))	Fixed	General								\$0
61-00000-68303 (LEASE PYMT-SJBA SERIES 2002)			\$2,235,562	\$2,233,513	\$2,232,469	\$2,228,538	\$2,226,588	\$2,226,366	\$2,222,713	\$2,233,513
61-00000-68401 (BOND ADMINISTRATION)			\$3,500	\$5,655	\$4,757	\$7,756	\$5,889	\$4,279	\$7,833	\$5,655
61-00000-69063 (TRANSFERS OUT-CAPITAL REPLACEMENT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
61-00000-69064 (TRANSFERS OUT-CAPITAL IMPROVEMENT)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Fund 61: Water Enterprise Debt Fund:			\$2,239,062	\$2,239,168	\$2,237,226	\$2,236,293	\$2,232,477	\$2,230,645	\$2,230,545	\$2,239,168
62-WATER ENTERPRISE-GWRP										
94564-Domestic Water-Booster Facilities Maintenance										
62-94564-64107 (REPAIRS/MAINT-BOOSTER SYSTEM)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Domestic Water-Booster Facilities Maintenance:			\$0							
94730-Groundwater Recovery Plant System-General Services										
62-94730-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$50,835	\$51,852	\$52,889	\$53,947	\$55,025	\$56,126	\$57,248	\$51,852
62-94730-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$10,000	\$10,200	\$10,404	\$10,612	\$10,824	\$11,041	\$11,262	\$10,200
62-94730-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-61117 (EMERGENCY CALL OUT OVERTIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-61190 (TEMPORARY STAFFING SERVICES)	Fixed	Salary	\$86,320	\$88,046	\$89,807	\$91,603	\$93,436	\$95,304	\$97,210	\$88,046
62-94730-61231 (UNIFORMS/BOOTS)	Fixed	General	\$1,800	\$1,854	\$1,910	\$1,967	\$2,026	\$2,087	\$2,149	\$1,854
62-94730-61287 (WORKERS COMP CHARGES)	Fixed	Benefits	\$2,430	\$2,552	\$2,679	\$2,813	\$2,954	\$3,101	\$3,256	\$2,552
62-94730-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$11,715	\$12,301	\$12,916	\$13,562	\$14,240	\$14,952	\$15,699	\$12,301
62-94730-61289 (OTHER BENEFITS)	Fixed	Benefits	\$1,750	\$1,838	\$1,929	\$2,026	\$2,127	\$2,233	\$2,345	\$1,838
62-94730-61290 (RETIREMENT)	Fixed	Benefits	\$19,500	\$20,475	\$21,499	\$22,574	\$23,702	\$24,887	\$26,132	\$20,475
62-94730-62409 (MANAGEMENT SERVICES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94730-65201 (SUBSCRIPTION-PRNTD MATERIAL)	Fixed	General	\$200	\$206	\$212	\$219	\$225	\$232	\$239	\$206
62-94730-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$11,765	\$12,118	\$12,481	\$12,856	\$13,242	\$13,639	\$14,048	\$12,118
62-94730-66102 (RISK MGMT/INSURANCE/BONDS)	Fixed	General	\$117,650	\$121,180	\$124,815	\$128,559	\$132,416	\$136,389	\$140,480	\$121,180
Subtotal Groundwater Recovery Plant System - General Services			\$313,965	\$322,620	\$331,541	\$340,737	\$350,217	\$359,991	\$370,069	\$322,620
94752-Groundwater Recovery Plant System-GRWP Water Quality										
62-94752-62513 (LABORATORY/TESTING EXPENSE)	Fixed	General	\$175,000	\$150,000	\$154,500	\$159,135	\$167,092	\$175,446	\$184,219	\$150,000
62-94752-63705 (GWRP SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94752-66217 (OCEAN LINE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Groundwater Recovery Plant System - GRWP Water Quality			\$175,000	\$150,000	\$154,500	\$159,135	\$167,092	\$175,446	\$184,219	\$150,000

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
62-WATER ENTERPRISE-GWRP										
94755-Groundwater Recovery Plant System-GRWP Plant										
62-94755-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$118,670	\$121,043	\$123,464	\$125,934	\$128,452	\$131,021	\$133,642	\$121,043
62-94755-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-61116 (DOUBLE TIME)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$5,720	\$6,006	\$6,306	\$6,622	\$6,953	\$7,300	\$7,665	\$6,006
62-94755-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$23,255	\$24,418	\$25,639	\$26,921	\$28,267	\$29,680	\$31,164	\$24,418
62-94755-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$3,475	\$3,649	\$3,831	\$4,023	\$4,224	\$4,435	\$4,657	\$3,649
62-94755-61290 (RETIREMENT)	Fixed	Benefits	\$38,730	\$40,667	\$42,700	\$44,835	\$47,077	\$49,430	\$51,902	\$40,667
62-94755-62501 (OUTSIDE CONTRACT SERVICES)	Fixed	General	\$2,000	\$55,000	\$56,650	\$58,350	\$60,100	\$61,903	\$63,760	\$55,000
62-94755-62513 (LABORATORY/TESTING EXPENSE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-62706 (OPERATING EQUIPMENT RENTAL)	Fixed	General	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$5,150
62-94755-62801 (ELECTRICITY)	Variable	Utilities	\$350,645	\$466,259	\$489,572	\$514,050	\$539,753	\$566,740	\$595,077	\$466,259
62-94755-62802 (NATURAL GAS)	Variable	Utilities	\$600	\$630	\$662	\$695	\$729	\$766	\$804	\$630
62-94755-62803 (WATER)	Variable	Utilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-62804 (TELEPHONE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-62806 (REFUSE DISPOSAL)	Fixed	General	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$2,575
62-94755-63204 (VALVE & HYDRANT MAINTENANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-63302 (CHEMICAL SUPPLIES)	Variable	General	\$532,735	\$794,309	\$818,138	\$842,682	\$867,963	\$894,002	\$920,822	\$794,309
62-94755-63501 (GENERAL OFFICE SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-63705 (GWRP SUPPLIES)	Variable	General	\$50,000	\$90,000	\$92,700	\$95,481	\$98,345	\$101,296	\$104,335	\$90,000
62-94755-64108 (REPAIR/MAINT-RESERVOIRS)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94755-64115 (BUILDING MAINTENANCE)	Fixed	General	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255	\$11,593	\$11,941	\$10,300
62-94755-64203 (MACHINERY & EQUIPMENT REPAIR)	Fixed	General	\$265,000	\$272,950	\$281,139	\$289,573	\$298,260	\$307,208	\$316,424	\$272,950
62-94755-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$27,060	\$27,872	\$28,708	\$29,569	\$30,456	\$31,370	\$32,311	\$27,872
Subtotal Groundwater Recovery Plant System - GRWP Plant:			\$1,435,390	\$1,920,827	\$1,988,074	\$2,057,855	\$2,130,275	\$2,205,438	\$2,283,458	\$1,920,827
94756-GAC										
62-94756-64118 (REPAIR/MAINT - GAC)	Fixed	General	\$165,650	\$332,000	\$175,738	\$181,010	\$186,441	\$192,034	\$197,795	\$332,000
Subtotal GAC:			\$165,650	\$332,000	\$175,738	\$181,010	\$186,441	\$192,034	\$197,795	\$332,000
94761-Groundwater Recovery Plant System-Well Maintenance										
62-94761-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$27,180	\$27,724	\$28,278	\$28,844	\$29,421	\$30,009	\$30,609	\$27,724
62-94761-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94761-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94761-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$1,405	\$1,475	\$1,549	\$1,626	\$1,708	\$1,793	\$1,883	\$1,475
62-94761-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$5,325	\$5,591	\$5,871	\$6,164	\$6,473	\$6,796	\$7,136	\$5,591
62-94761-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$795	\$835	\$876	\$920	\$966	\$1,015	\$1,065	\$835
62-94761-61290 (RETIREMENT)	Fixed	Benefits	\$8,865	\$9,308	\$9,774	\$10,262	\$10,775	\$11,314	\$11,880	\$9,308
62-94761-62801 (ELECTRICITY)	Variable	Utilities	\$286,890	\$381,484	\$400,559	\$420,586	\$441,616	\$463,697	\$486,881	\$381,484
62-94761-63302 (CHEMICAL SUPPLIES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94761-64109 (REPAIRS/MAINT-WELLS)	Fixed	General	\$50,000	\$75,000	\$60,000	\$61,800	\$64,890	\$68,135	\$71,541	\$75,000
62-94761-64117 (REPAIR/MAINT-GWRP)	Fixed	General	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939	\$4,057	\$4,179	\$3,605
62-94761-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$6,640	\$6,839	\$7,044	\$7,256	\$7,473	\$7,698	\$7,929	\$6,839
Subtotal Groundwater Recovery Plant System - Well Mainten:			\$390,600	\$511,862	\$517,664	\$541,284	\$567,261	\$594,513	\$623,104	\$511,862
94762-Groundwater Recovery Plant System-Reservoir Maintenance										
62-94762-64108 (REPAIR/MAINT-RESERVOIRS)	Fixed	General	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
Subtotal Groundwater Recovery Plant System - Reservoir Mai:			\$3,000	\$3,090	\$3,183	\$3,278	\$3,377	\$3,478	\$3,582	\$3,090
94770-Groundwater Recovery Plant System-Emergencies and After-Hours Response										
62-94770-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
62-94770-61122 (STAND-BY PAY)	Fixed	Salary	\$40,000	\$40,800	\$41,616	\$42,448	\$43,297	\$44,163	\$45,046	\$40,800
Subtotal Groundwater Recovery Plant System - Emergencies &			\$40,000	\$40,800	\$41,616	\$42,448	\$43,297	\$44,163	\$45,046	\$40,800
Total Fund 62: Water Enterprise - GRWP:			\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274	\$3,281,199
Total O&M (Funds 60, 61 & 62):			\$13,846,333	\$13,928,867	\$14,118,676	\$14,511,641	\$15,025,930	\$15,412,187	\$15,908,445	\$13,928,867

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Table 8-8: Detailed Non-Potable Water (or Recycled Water) Operations & Maintenance Expenses

City of San Juan Capistrano Financial Plan Model, DIF & Sewer Rates
Recycled Water O&M Expenses FY 2014

Escalation Factors	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
General	3%	3%	3%	3%	3%	3%
Salary	2%	2%	2%	2%	2%	2%
Benefits	5%	5%	5%	5%	5%	5%
Utilities	5%	5%	5%	5%	5%	5%
CCI	4%	4%	4%	4%	4%	4%
Water Demand Factor	0%	0%	0%	0%	0%	0%

Source: Water_Sewer Budgets FY 12_14 (Mid Term update w_prelim. 12_13 actual)-v2.xlsx

Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS - RW ONLY										
94632-Recycled Water-Water Conservation										
60-94632-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$775	\$791	\$806	\$822	\$839	\$856	\$873	\$791
60-94632-61126 (WATER CERTIFICATE PAY)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
60-94632-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94632-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94632-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$30	\$32	\$33	\$35	\$36	\$38	\$40	\$32
60-94632-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$150	\$158	\$165	\$174	\$182	\$191	\$201	\$158
60-94632-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$25	\$26	\$28	\$29	\$30	\$32	\$34	\$26
60-94632-61290 (RETIREMENT)	Fixed	Benefits	\$250	\$263	\$276	\$289	\$304	\$319	\$335	\$263
60-94632-63604 (OTHER FLYERS/BROCHURES)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94632-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$150	\$155	\$159	\$164	\$169	\$174	\$179	\$155
Subtotal Recycled Water - Water Conservation:			\$1,880	\$1,998	\$1,998	\$2,059	\$2,124	\$2,190	\$2,259	
94634-Recycled Water-Strategic Planning										
60-94634-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$11,630	\$11,863	\$12,100	\$12,342	\$12,589	\$12,840	\$13,097	\$11,863
60-94634-61121 (BILINGUAL PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94634-61123 (AUTOMOBILE ALLOWANCE)	Fixed	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94634-61223 (MEDICARE)	Fixed	Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94634-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$470	\$494	\$518	\$544	\$571	\$600	\$630	\$494
60-94634-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$2,280	\$2,394	\$2,514	\$2,639	\$2,771	\$2,910	\$3,055	\$2,394
60-94634-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$340	\$357	\$375	\$394	\$413	\$434	\$456	\$357
60-94634-61290 (RETIREMENT)	Fixed	General	\$3,795	\$3,909	\$4,026	\$4,147	\$4,271	\$4,399	\$4,531	\$3,909
60-94634-62250 (ENGINEERING/ARCH/DESIGN SVCS)	Fixed	General	\$0	\$25,000		\$15,000				\$25,000
60-94634-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$2,235	\$2,302	\$2,371	\$2,442	\$2,516	\$2,591	\$2,669	\$2,302
Subtotal Recycled Water - Strategic Planning:			\$20,750	\$46,318	\$21,904	\$37,508	\$23,131	\$23,775	\$24,438	\$46,318
94650-Recycled Water-Import Water Supply										
60-94650-66215 (MNWD - COMMODITY CHARGES - REC)	Fixed	General	\$35,000	\$36,050	\$37,132	\$38,245	\$39,393	\$40,575	\$41,792	\$36,050
Subtotal Recycled Water - Import Water Supply:			\$35,000	\$36,050	\$37,132	\$38,245	\$39,393	\$40,575	\$41,792	\$36,050
94660-Recycled Water-System Maintenance										
60-94660-61111 (FULL-TIME SALARIES)	Fixed	Salary	\$7,230	\$7,375	\$7,522	\$7,673	\$7,826	\$7,983	\$8,142	\$7,375
60-94660-61115 (OVERTIME-REGULAR)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94660-61128 (DEFERRED COMPENSATION)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94660-61129 (04% VACATION PAY)	Fixed	Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94660-61287 (WORKER'S COMP CHARGES)	Fixed	Benefits	\$295	\$310	\$325	\$341	\$359	\$377	\$395	\$310
60-94660-61288 (HEALTH INSURANCE CHGS)	Fixed	Benefits	\$1,415	\$1,486	\$1,560	\$1,638	\$1,720	\$1,806	\$1,896	\$1,486
60-94660-61289 (OTHER BENEFITS CHGS)	Fixed	Benefits	\$210	\$221	\$232	\$243	\$255	\$268	\$281	\$221
60-94660-61290 (RETIREMENT)	Fixed	Benefits	\$2,360	\$2,478	\$2,602	\$2,732	\$2,869	\$3,012	\$3,163	\$2,478
60-94660-63201 (SMALL TOOLS & EQUIPMENT)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
60-94660-63203 (PIPES AND FITTINGS)	Fixed	General	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
60-94660-64111 (REPAIR/MAINT-PIPELINES)	Fixed	General	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,030
60-94660-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General	\$1,390	\$1,432	\$1,475	\$1,519	\$1,564	\$1,611	\$1,660	\$1,432
Subtotal Recycled Water - System Maintenance:			\$14,900	\$15,360	\$15,837	\$16,332	\$16,844	\$17,375	\$17,926	\$15,360

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Descriptions	Fixed Variable	Inflated by	FY 2014 Budgeted	FY 2015 Estimated	FY 2016 Budget	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2015 Test Year
60 WATER ENTERPRISE OPERATIONS - RW ONLY										
<u>94661-Recycled Water-Well Maintenance</u>										
60-94661-61111 (FULL-TIME SALARIES)	Fixed	Salary		\$3,505	\$3,575	\$3,647	\$3,720	\$3,794	\$3,870	\$3,505
60-94661-61128 (DEFERRED COMPENSATION)	Fixed	Salary		\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61129 (04% VACATION PAY)	Fixed	Salary		\$0	\$0	\$0	\$0	\$0	\$0	\$0
60-94661-61287 (WORKER'S COMP CHARGES)	Fixed	Salary		\$140	\$143	\$146	\$149	\$152	\$155	\$140
60-94661-61288 (HEALTH INSURANCE CHGS)	Fixed	General		\$690	\$711	\$732	\$754	\$777	\$800	\$690
60-94661-61289 (OTHER BENEFITS CHGS)	Fixed	General		\$105	\$108	\$111	\$115	\$118	\$122	\$105
60-94661-61290 (RETIREMENT)	Fixed	Benefits		\$1,145	\$1,202	\$1,262	\$1,325	\$1,392	\$1,461	\$1,145
60-94661-62801 (ELECTRICITY)	Fixed	Benefits		\$50,000	\$52,500	\$55,125	\$57,881	\$60,775	\$63,814	\$50,000
60-94661-64106 (REPAIRS/MAINT-SCADA SYSTEM)	Fixed	Benefits		\$2,000	\$2,100	\$2,205	\$2,315	\$2,431	\$2,553	\$2,000
60-94661-64109 (REPAIRS/MAINT-WELLS)	Fixed	Benefits		\$10,000	\$10,500	\$11,025	\$11,576	\$12,155	\$12,763	\$10,000
60-94661-64110 (PRV MAINTENANCE)	Fixed	Benefits		\$1,000	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276	\$1,000
60-94661-64113 (GROUNDS MAINTENANCE)	Fixed	Benefits		\$400	\$420	\$441	\$463	\$486	\$511	\$400
60-94661-64115 (BUILDING MAINTENANCE)	Fixed	Benefits		\$1,000	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276	\$1,000
60-94661-65504 (ADMIN/OVERHEAD CHARGES)	Fixed	General		\$675	\$695	\$716	\$738	\$760	\$783	\$675
Subtotal Recycled Water - Well Maintenance:			\$0	\$70,660	\$74,054	\$77,615	\$81,351	\$85,270	\$89,382	\$70,660
<u>94662-Recycled Water-Reservoir Maintenance</u>										
60-94662-64108 (REPAIR/MAINT-RESERVOIRS)	Fixed	General		\$500	\$515	\$530	\$546	\$563	\$580	\$515
Subtotal Recycled Water - Reservoir Maintenance			\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$515
<u>Allocated Costs to RW from Water</u>										
RW Administrative Service Cost Allocation				\$6,094	\$5,300	\$5,606	\$5,177	\$5,475	\$5,719	\$6,094
RW Customer Service Cost Allocation				\$10,588	\$10,910	\$11,244	\$11,588	\$11,944	\$12,312	\$10,588
RW Misc Rev				-\$468	-\$468	-\$468	-\$468	-\$468	-\$468	-\$468
Subtotal Allocated Costs to RW from Water			\$0	\$16,214	\$15,742	\$16,382	\$16,297	\$16,951	\$17,563	\$16,214
<u>Water Supply Costs</u>										
Nonpotable				\$0	\$0	\$0	\$0	\$0	\$0	\$0
RW				\$0	\$263,993	\$272,413	\$281,105	\$290,079	\$299,344	\$308,909
Total Recycled Water O&M:			\$73,030	\$451,048	\$439,610	\$469,793	\$469,782	\$486,059	\$502,866	\$451,048

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Table 8-9: Detailed Sewer Capital Improvement Plan

City of San Juan Capistrano Sewer CIP										
<u>Source:</u> Spreadsheet for Model v21 updates 01-14-14.xlsx sent by Cindy Russell 1/14/14 at 5:13PM										
Inflated CIP	Fund	Type	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Fund 71	Sewer Replacement	\$811,843	\$1,378,825	\$651,377	\$486,720	\$506,189	\$526,436	\$547,494	\$569,394
	Fund 72	Sewer Capital Improvement	\$4,885,608	\$6,369,045	\$0	\$0	\$0	\$0	\$0	\$0
Type	Fund	Descriptions	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Sewer Replacement	Fund 71	8701-Grease Food Interceptor Program		\$100,000						
Sewer Replacement	Fund 71	xx701-Annual Sewer Replacement Program								
Sewer Replacement	Fund 71	xx701-Annual Sewer Replacement Program	\$797,286	\$1,165,650	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
Sewer Replacement	Fund 71	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5	\$14,557	\$38,175	\$1,324					
Sewer Replacement	Fund 71	Transfer Out - Sewer Capital Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sewer Replacement	Fund 71	14702-Las Ramblas Sewer Activa Slope Replacement		\$75,000	\$175,000					
Sewer Capital Improvement	Fund 72	07701-SOCWA PC#2 Rehabilitation	\$2,481,650	\$3,949,010						
Sewer Capital Improvement	Fund 72	07702-Hydraulic Cap Proj #4-Trunk Line Reconst.								
Sewer Capital Improvement	Fund 72	07703-New Hydraulic Capital Project #1 & #6	\$2,353,958	\$2,350,035						
Sewer Capital Improvement	Fund 72	07704-Hyd Cap. Project #2 - Trunk Line Recon								
Sewer Capital Improvement	Fund 72	07705-Sewer System Monitoring Project								
Sewer Capital Improvement	Fund 72	08701-Grease Food Interceptor Program	\$50,000	\$70,000						
Sewer Capital Improvement	Fund 72	10704-SOCWA PC5								
Sewer Capital Improvement	Fund 72	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5								
Sewer Capital Improvement	Fund 72	12701-Offsite Sewer Reimbursement - Tract 16634								
Sewer Replacement	Fund 71	Adjusted for Actual CIP								
Sewer Capital Improvement	Fund 72	Adjusted for Actual CIP								
TOTAL CIP (Non-inflated)			\$5,697,451	\$7,747,870	\$626,324	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
Fund	Uninflated CIP Funded by	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	
Fund 71	Sewer Replacement	\$811,843	\$1,378,825	\$626,324	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	
Fund 72	Sewer Capital Improvement	\$4,885,608	\$6,369,045	\$0	\$0	\$0	\$0	\$0	\$0	

Table 8-10: Detailed Non-Potable Water Capital Improvement Plan

City of San Juan Capistrano Non-Potable CIP										
<u>Source:</u> Water and Sewer Seven Year CIP (same as pdf).xls										
Inflated C	Fund	Type	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Fund 65	Recycled Water	\$2,458,696	\$2,222,330	\$0	\$270,400	\$281,216	\$0	\$0	\$1,897,979
Type	Fund	Descriptions	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Fund 65	13601-City-Wide Recycled Water Conversion	\$1,293,696	\$1,123,895						
	Fund 65	13603-San Juan Creek Road Recycled Connection to SMWD	\$850,000	\$796,040						
	Fund 65	13805-Hollywood Well Reline/New Pump	\$225,000	\$219,850						
	Fund 65	13806-Rosenbaum Well Tie-In	\$90,000	\$82,545						
	Fund 65	RW Routine R&R				\$250,000	\$250,000			\$1,500,000
	Fund 65	Adjusted CIP for Actual								
TOTAL CIP (Non-inflated)			\$2,458,696	\$2,222,330	\$0	\$250,000	\$250,000	\$0	\$0	\$1,500,000

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Table 8-11: Detailed Water Capital Improvement Plan Scenarios

City of San Juan Capistrano
Potable Water CIP

Source: Spreadsheet for Model v21 updates 01-14-14.xlsx sent by Cindy Russell 1/14/14 at 5:13PM

Selected Inflated CIP	Fund	Type	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
1 Current 7-yr CIP	Fund 63	Water Replacement	\$2,494,463	\$2,425,992	\$324,444	\$1,163,639	\$1,528,947	\$3,535,313	\$3,404,803	\$1,370,973
1 Current 7-yr CIP	Fund 64	Water Capital Improvement	\$2,591,331	\$2,396,150	\$30,160	\$0	\$0	\$0	\$0	\$0
CIP Scenarios (Inflated)										
Current 7-yr CIP	Fund 63		\$2,494,463	\$2,425,992	\$324,444	\$1,163,639	\$1,528,947	\$3,535,313	\$3,404,803	\$1,370,973
Comprehensive CIP	Fund 63		\$2,494,463	\$2,425,992	\$3,964,444	\$4,138,039	\$5,184,755	\$7,044,888	\$7,115,594	\$5,799,590
Reduced CIP	Fund 63		\$2,494,463	\$2,425,992	\$324,444	\$1,163,639	\$1,528,947	\$955,774	\$2,857,309	\$675,048
Minimal CIP	Fund 63		\$2,494,463	\$2,425,992	\$324,444	\$1,163,639	\$1,070,871	\$751,049	\$1,899,195	\$558,955
Current 7-yr CIP	Fund 64		\$2,591,331	\$2,396,150	\$30,160	\$0	\$0	\$0	\$0	\$0
Comprehensive CIP	Fund 64		\$2,591,331	\$2,396,150	\$30,160	\$0	\$0	\$0	\$0	\$0
Reduced CIP	Fund 64		\$2,591,331	\$2,396,150	\$30,160	\$0	\$0	\$0	\$0	\$0
Minimal CIP	Fund 64		\$2,591,331	\$2,396,150	\$30,160	\$0	\$0	\$0	\$0	\$0

Current 7-yr CIP			FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Type	Fund	Descriptions								
Water Replacement	Fund 63	08801-IRWSS Main Capital Outlay	\$1,288,896	\$820,299	\$201,730	\$84,850				
Water Replacement	Fund 63	08804-Pump Station Improvements Design				\$300,000	\$300,000		\$800,000	\$900,000
Water Replacement	Fund 63	10803-San Juan Hills Waterline Replacements	\$95,000	\$279,805		\$164,000				
Water Replacement	Fund 63	11801-Pressure Regulating Stations					\$250,000	\$350,000	\$300,000	\$183,500
Water Replacement	Fund 63	11803-Annual Asset Replacement - Water								
Water Replacement	Fund 63	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5	\$552,362	\$1,325,888	\$50,235					
Water Replacement	Fund 63	13801-Greensand Filter Replacements	\$267,585						\$300,000	
Water Replacement	Fund 63	13802-GWRP Chemical Tank Upsizing					\$0	\$0	\$0	\$0
Water Replacement	Fund 63	13803-Tirador Pump Replacement	\$75,000							
Water Replacement	Fund 63	13804-Kinoshita Pump Replacement	\$75,000							
Water Replacement	Fund 63	16801-La Pata Water Line Replacement				\$467,000	\$467,000	\$467,000		
Water Capital Improvement	Fund 64	07803 - Terminal Reservoir No. 3 - Habitat Mitigation	\$44,331	\$57,710	\$29,000					
Water Capital Improvement	Fund 64	07804-Pipeline Improvements at Various Locs.								
Water Capital Improvement	Fund 64	07807-Cooks Reservoir Repair								
Water Capital Improvement	Fund 64	07808-Chiquita Reservoir								
Water Capital Improvement	Fund 64	07810-MNWD High West Side Interconnect								
Water Replacement	Fund 63	07811-7605 Reservoir	\$140,620		\$60,000	\$60,000	\$60,000	\$2,205,000		
Water Capital Improvement	Fund 64	07811-7605 Reservoir		\$69,385						
Water Capital Improvement	Fund 64	08802-Additional Ground Recovery Wells								
Water Capital Improvement	Fund 64	08803-Pipelines E13 & E14								
Water Capital Improvement	Fund 64	08804-Pump Station Improvements Design								
Water Capital Improvement	Fund 64	08806-Ocean Desalination Plant Feasib. Study								
Water Capital Improvement	Fund 64	10801-City Water Facilities Security Upgrades								
Water Capital Improvement	Fund 64	10802-GWRP Plant/Regional Domestic Distribution Facility Expansion								
Water Capital Improvement	Fund 64	10804-GAC - Granular Activated Carbon Filter								
Water Capital Improvement	Fund 64	11801-Pressure Regulating Stations								
Water Capital Improvement	Fund 64	11802-Utilities master Plan Update								
Water Capital Improvement	Fund 64	11803-Annual Asset Replacement - Water								
Water Capital Improvement	Fund 64	11804-Emergency Standby Electrical Generation								
Water Capital Improvement	Fund 64	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5								
Water Capital Improvement	Fund 64	13807-GWRP Expansion, Phase II	\$1,581,000	\$1,412,390						
Water Capital Improvement	Fund 64	13808-Emergency Generators	\$966,000	\$856,665						
Water Capital Improvement	Fund 63	17801-DWMP Pipelines - E22 Across San Juan Creek and E9 across Oso Creek					\$282,228			
Water Capital Improvement	Fund 63	19801 - Domestic Water line E-22a							\$637,500	
Water Capital Improvement	Fund 63	19802 - DWMP Pipelines; E1 Ortega Highway Wester 1/3 of line							\$761,000	
Water Capital Improvement	Fund 64	Transfer Out - Water Capital Replacement								
	Fund 63	Adjusted for Actual CIP								
TOTAL CIP (Non-inflated)			\$5,085,794	\$4,822,142	\$340,965	\$1,075,850	\$1,359,228	\$3,022,000	\$2,798,500	\$1,083,500

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Comprehensive CIP		Source San Juan Capistrano Water Model v25 -S1-Comprehensive2.xlsm sent by Keith Van Der Maaten 2/4/14								
Type	Fund	Descriptions	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Water Replacement	Fund 63	08801-JRWSS Main Capital Outlay	\$1,288,896	\$820,299	\$201,730	\$84,850				
Water Replacement	Fund 63	08804-Pump Station Improvements Design				\$300,000	\$300,000		\$800,000	\$900,000
Water Replacement	Fund 63	10803-San Juan Hills Waterline Replacements	\$95,000	\$279,805		\$164,000				
Water Replacement	Fund 63	11801-Pressure Regulating Stations					\$250,000	\$350,000	\$300,000	\$183,500
Water Replacement	Fund 63	11803-Annual Asset Replacement - Water								
Water Replacement	Fund 63	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5	\$552,362	\$1,325,888	\$50,235					
Water Replacement	Fund 63	13801-Greensand Filter Replacements	\$267,585						\$300,000	
Water Replacement	Fund 63	13802-GWRP Chemical Tank Upsizing								
Water Replacement	Fund 63	13803-Tirador Pump Replacement	\$75,000							
Water Replacement	Fund 63	13804-Kinoshita Pump Replacement	\$75,000							
Water Replacement	Fund 63	16801-La Pata Water Line Replacement				\$467,000	\$467,000	\$467,000		
Water Replacement	Fund 63	San Juan Hills WaterLine Replacement					\$2,500,000	\$2,500,000		
Water Replacement	Fund 63	Zone 2 Water Pipeline			\$1,000,000					
Water Replacement	Fund 63	Downtown 250c Pipeline				\$500,000				
Water Replacement	Fund 63	Activa Pipeline						\$250,000		
Water Replacement	Fund 63	Zone 3 Reservoir Replacement								\$1,000,000
Water Replacement	Fund 63	High West Side Reservoir Replacement							\$1,000,000	
Water Replacement	Fund 63	Distribution System Improvements				\$250,000	\$250,000	\$250,000	\$250,000	
Water Replacement	Fund 63	Pump Station Improvements							\$1,800,000	
Water Replacement	Fund 63	Install High Pressure Feed to Bear Brand								\$1,000,000
Water Replacement	Fund 63	Groundwater Recharge								\$1,500,000
Water Replacement	Fund 63	Meter Overhaul Program			\$2,500,000	\$2,500,000				
Water Capital Improvement	Fund 64	07803 - Terminal Reservoir No. 3 - Habitat Mitigation	\$44,331	\$57,710	\$29,000					
Water Capital Improvement	Fund 64	07804-Pipeline Improvements at Various Locs.								
Water Capital Improvement	Fund 64	07807-Cooks Reservoir Repair								
Water Capital Improvement	Fund 64	07808-Chiquita Reservoir								
Water Capital Improvement	Fund 64	07810-MNWD High West Side Interconnect								
Water Replacement	Fund 63	07811-760S Reservoir	\$140,620		\$60,000	\$60,000	\$60,000	\$2,205,000		
Water Capital Improvement	Fund 64	07811-760S Reservoir		\$69,385						
Water Capital Improvement	Fund 64	08802-Additional Ground Recovery Wells								
Water Capital Improvement	Fund 64	08803-Pipelines E13 & E14								
Water Capital Improvement	Fund 64	08804-Pump Station Improvements Design								
Water Capital Improvement	Fund 64	08806-Ocean Desalination Plant Feasib. Study								
Water Capital Improvement	Fund 64	10801-City Water Facilities Security Upgrades								
Water Capital Improvement	Fund 64	10802-GWRP Plant/Regional Domestic Distribution Facility Expansion								
Water Capital Improvement	Fund 64	10804-GAC - Granular Activated Carbon Filter								
Water Capital Improvement	Fund 64	11801-Pressure Regulating Stations								
Water Capital Improvement	Fund 64	11802-Utilities master Plan Update								
Water Capital Improvement	Fund 64	11803-Annual Asset Replacement - Water								
Water Capital Improvement	Fund 64	11804-Emergency Standby Electrical Generation								
Water Capital Improvement	Fund 64	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5								
Water Capital Improvement	Fund 64	13807-GWRP Expansion, Phase II	\$1,581,000	\$1,412,390						
Water Capital Improvement	Fund 64	13808-Emergency Generators	\$966,000	\$856,665						
Water Capital Improvement	Fund 63	17801 -DWMP Pipelines - E22 Across San Juan Creek and E9 across Oso Creek					\$282,228			
Water Capital Improvement	Fund 63	19801 - Domestic Water line E-22a							\$637,500	
Water Capital Improvement	Fund 63	19802 - DWMP Pipelines; E1 Ortega Highway Wester 1/3 of line							\$761,000	
Water Capital Improvement	Fund 64	Transfer Out - Water Capital Replacement								
Water Capital Improvement	Fund 63	Adjusted for Actual CIP								
TOTAL CIP (Non-inflated)			\$5,085,794	\$4,822,142	\$3,840,965	\$3,825,850	\$4,609,228	\$6,022,000	\$5,848,500	\$4,583,500

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Reduced CIP Source San Juan Capistrano Water Model v25 -S4-Reduced Reserve and CIP.xlsm sent by Keith Van Der Maaten 1/29/14

Type	Fund	Descriptions	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Water Replacement	Fund 63	08801-JRWSS Main Capital Outlay	\$1,288,896	\$820,299	\$201,730	\$84,850				
Water Replacement	Fund 63	08804-Pump Station Improvements Design				\$300,000	\$300,000		\$800,000	\$900,000
		Fund 63 08804-Pump Station Improvements Design							-\$450,000	-\$550,000
Water Replacement	Fund 63	10803-San Juan Hills Waterline Replacements	\$95,000	\$279,805		\$164,000				
Water Replacement	Fund 63	11801-Pressure Regulating Stations					\$250,000	\$350,000	\$300,000	\$183,500
Water Replacement	Fund 63	11803-Annual Asset Replacement - Water								
Water Replacement	Fund 63	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5	\$552,362	\$1,325,888	\$50,235					
Water Replacement	Fund 63	13801-Greensand Filter Replacements	\$267,585						\$300,000	
Water Replacement	Fund 63	13802-GWRP Chemical Tank Upsizing								
Water Replacement	Fund 63	13803-Tirador Pump Replacement	\$75,000							
Water Replacement	Fund 63	13804-Kinoshita Pump Replacement	\$75,000							
Water Replacement	Fund 63	16801-La Pata Water Line Replacement				\$467,000	\$467,000	\$467,000		
	Fund 63	Groundwater Recharge/Extraction projects (SJBA)								
	Fund 63	Meter Overhaul Program								
	Fund 63	Country Hills Booster Station								
	Fund 63	San Juan Hills WaterLine Replacement								
	Fund 63	Replace High West Side Reservoirs								
	Fund 63	Annual Main, Valve, and Blowoff Installation Program								
Water Capital Improvement	Fund 64	07803 - Terminal Reservoir No. 3 - Habitat Mitigation	\$44,331	\$57,710	\$29,000					
Water Capital Improvement	Fund 64	07804-Pipeline Improvements at Various Locs.								
Water Capital Improvement	Fund 64	07807-Cooks Reservoir Repair								
Water Capital Improvement	Fund 64	07808-Chiquita Reservoir								
Water Capital Improvement	Fund 64	07810-MNWD High West Side Interconnect								
Water Replacement	Fund 63	07811-760S Reservoir	\$140,620		\$60,000	\$60,000	\$60,000	\$2,205,000		
		Fund 63 07811-760S Reservoir						-\$2,205,000		
Water Capital Improvement	Fund 64	07811-760S Reservoir		\$69,385						
Water Capital Improvement	Fund 64	08802-Additional Ground Recovery Wells								
Water Capital Improvement	Fund 64	08803-Pipelines E13 & E14								
Water Capital Improvement	Fund 64	08804-Pump Station Improvements Design								
Water Capital Improvement	Fund 64	08806-Ocean Desalination Plant Feasib. Study								
Water Capital Improvement	Fund 64	10801-City Water Facilities Security Upgrades								
Water Capital Improvement	Fund 64	10802-GWRP Plant/Regional Domestic Distribution Facility Expansion								
Water Capital Improvement	Fund 64	10804-GAC - Granular Activated Carbon Filter								
Water Capital Improvement	Fund 64	11801-Pressure Regulating Stations								
Water Capital Improvement	Fund 64	11802-Utilities master Plan Update								
Water Capital Improvement	Fund 64	11803-Annual Asset Replacement - Water								
Water Capital Improvement	Fund 64	11804-Emergency Standby Electrical Generation								
Water Capital Improvement	Fund 64	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5								
Water Capital Improvement	Fund 64	13807-GWRP Expansion, Phase II	\$1,581,000	\$1,412,390						
Water Capital Improvement	Fund 64	13808-Emergency Generators	\$966,000	\$856,665						
Water Capital Improvement	Fund 63	17801 - DWMP Pipelines - E22 Across San Juan Creek and E9 across Oso Creek					\$282,228			
Water Capital Improvement	Fund 63	19801 - Domestic Water line E-22a							\$637,500	
Water Capital Improvement	Fund 63	19802 - DWMP Pipelines; E1 Ortega Highway Wester 1/3 of line							\$761,000	
Water Capital Improvement	Fund 64	Transfer Out - Water Capital Replacement								
	Fund 63	Adjusted for Actual CIP								
	Fund 63	Adjusted for Actual CIP								
		TOTAL CIP (Non-inflated)	\$5,085,794	\$4,822,142	\$340,965	\$1,075,850	\$1,359,228	\$817,000	\$2,348,500	\$533,500

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Minimal CIP		Source San Juan Capistrano Water Model v25 -S5-Undermanaged.xlsx sent by Keith Van Der Maaten 1/29/14								
Type	Fund	Descriptions	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Water Replacement	Fund 63	08801-JRWSS Main Capital Outlay	\$1,288,896	\$820,299	\$201,730	\$84,850				
Water Replacement	Fund 63	08804-Pump Station Improvements Design				\$300,000	\$300,000		\$800,000	\$900,000
	Fund 63	08804-Pump Station Improvements Design							-\$450,000	-\$550,000
Water Replacement	Fund 63	10803-San Juan Hills Waterline Replacements	\$95,000	\$279,805		\$164,000				
Water Replacement	Fund 63	11801-Pressure Regulating Stations					\$250,000	\$350,000	\$300,000	\$183,500
	Fund 63	11801-Pressure Regulating Stations					-\$125,000	-\$175,000	-\$150,000	-\$91,750
Water Replacement	Fund 63	11803-Annual Asset Replacement - Water								
Water Replacement	Fund 63	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5	\$552,362	\$1,325,888	\$50,235					
Water Replacement	Fund 63	13801-Greensand Filter Replacements	\$267,585						\$300,000	
Water Replacement	Fund 63	13802-GWRP Chemical Tank Upsizing								
Water Replacement	Fund 63	13803-Tirador Pump Replacement	\$75,000							
Water Replacement	Fund 63	13804-Kinoshita Pump Replacement	\$75,000							
Water Replacement	Fund 63	16801-La Pata Water Line Replacement				\$467,000	\$467,000	\$467,000		
	Fund 63	Groundwater Recharge/Extraction projects (SJBA)								
	Fund 63	Meter Overhaul Program								
	Fund 63	Country Hills Booster Station								
	Fund 63	San Juan Hills WaterLine Replacement								
	Fund 63	Replace High West Side Reservoirs								
	Fund 63	Annual Main, Valve, and Blowoff Installation Program								
Water Capital Improvement	Fund 64	07803 - Terminal Reservoir No. 3 - Habitat Mitigation	\$44,331	\$57,710	\$29,000					
Water Capital Improvement	Fund 64	07804-Pipeline Improvements at Various Locs.								
Water Capital Improvement	Fund 64	07807-Cooks Reservoir Repair								
Water Capital Improvement	Fund 64	07808-Chiquita Reservoir								
Water Capital Improvement	Fund 64	07810-MNWD High West Side Interconnect								
Water Replacement	Fund 63	07811-760S Reservoir	\$140,620		\$60,000	\$60,000	\$60,000	\$2,205,000		
	Fund 63	07811-760S Reservoir						-\$2,205,000		
Water Capital Improvement	Fund 64	07811-760S Reservoir		\$69,385						
Water Capital Improvement	Fund 64	08802-Additional Ground Recovery Wells								
Water Capital Improvement	Fund 64	08803-Pipelines E13 & E14								
Water Capital Improvement	Fund 64	08804-Pump Station Improvements Design								
Water Capital Improvement	Fund 64	08806-Ocean Desalination Plant Feasib. Study								
Water Capital Improvement	Fund 64	10801-City Water Facilities Security Upgrades								
Water Capital Improvement	Fund 64	10802-GWRP Plant/Regional Domestic Distribution Facility Expansion								
Water Capital Improvement	Fund 64	10804-GAC - Granular Activated Carbon Filter								
Water Capital Improvement	Fund 64	11801-Pressure Regulating Stations								
Water Capital Improvement	Fund 64	11802-Utilities master Plan Update								
Water Capital Improvement	Fund 64	11803-Annual Asset Replacement - Water								
Water Capital Improvement	Fund 64	11804-Emergency Standby Electrical Generation								
Water Capital Improvement	Fund 64	11805-Water and Sewer Lines at Ortega Hwy/Del O/I-5								
Water Capital Improvement	Fund 64	13807-GWRP Expansion, Phase II	\$1,581,000	\$1,412,390						
Water Capital Improvement	Fund 64	13808-Emergency Generators	\$966,000	\$856,665						
Water Capital Improvement	Fund 63	17801 -DWMP Pipelines - E22 Across San Juan Creek and E9 across Oso Creek					\$282,228			
	Fund 63	17801 -DWMP Pipelines - E22 Across San Juan Creek and E9 across Oso Creek					-\$282,228			
Water Capital Improvement	Fund 63	19801 - Domestic Water line E-22a							\$637,500	
	Fund 63	19801 - Domestic Water line E-22a							-\$637,500	
Water Capital Improvement	Fund 63	19802 - DWMP Pipelines; E1 Ortega Highway Wester 1/3 of line							\$761,000	
Water Capital Improvement	Fund 64	Transfer Out - Water Capital Replacement								
	Fund 63	Adjusted for Actual CIP								
TOTAL CIP (Non-inflated)			\$5,085,794	\$4,822,142	\$340,965	\$1,075,850	\$952,000	\$642,000	\$1,561,000	\$441,750

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Table 8-12: Detailed Water Existing Debt Service

Sources: COPS Series 2004 debt service schedule.pdf,
 SJBA Operating Lease Schedule.pdf,
 COPS 2002 Sources and Uses of Funds.pdf
 and Debt Service Schedule - COPS 2009.xlsx

Fiscal Year	Payment Date	2002 COPS Debt Service	2004 COPS Debt Service	2009 COPS Debt Service	2002 SJBA
2013	12/1/2012	\$661,714	\$991,081	\$537,122	\$1,602,824
2013	6/1/2013	\$0	\$431,113	\$256,622	\$630,156
2014	12/1/2013	\$664,076	\$1,001,113	\$541,622	\$1,620,156
2014	6/1/2014	\$0	\$420,781	\$250,922	\$605,406
2015	12/1/2014	\$664,936	\$1,010,781	\$550,922	\$1,645,406
2015	6/1/2015	\$0	\$410,088	\$244,922	\$578,106
2016	12/1/2015	\$664,461	\$985,088	\$554,922	\$1,673,106
2016	6/1/2016	\$0	\$399,306	\$238,722	\$549,363
2017	12/1/2016	\$662,493	\$994,306	\$558,722	\$1,699,363
2017	6/1/2017	\$0	\$387,778	\$232,322	\$519,175
2018	12/1/2017	\$663,733	\$1,007,778	\$567,322	\$1,729,175
2018	6/1/2018	\$0	\$375,378	\$225,622	\$487,413
2019	12/1/2018	\$663,383	\$1,025,378	\$575,622	\$1,762,413
2019	6/1/2019	\$0	\$362,053	\$218,622	\$453,954
2020	12/1/2019	\$661,133	\$1,037,053	\$578,622	\$1,793,944
2020	6/1/2020	\$0	\$347,878	\$211,422	\$418,769
2021	12/1/2020	\$657,633	\$1,052,878	\$586,422	\$1,833,769
2021	6/1/2021	\$0	\$332,721	\$203,688	\$381,625
2022	12/1/2021	\$662,288	\$1,067,721	\$593,688	\$1,866,625
2022	6/1/2022	\$0	\$316,551	\$194,913	\$344,500



8.6 Appendix 6 – Turfgrass crop coefficient for Cool Season Grasses

J. Meyer and V. Gibeault, *Turfgrass Performance Under Reduced Irrigation*, California Agriculture July-August 1986, Table 3 – Crop Coefficient (K_c) for cool season grasses

Table 8-13: Crop Coefficients (K_c)

Month	K_c
January	0.61
February	0.64
March	0.75
April*	0.85
May	0.95
June	0.88
July	0.94
August	0.86
September	0.74
October	0.75
November	0.69
December	0.60
Annual Average	0.80

*According to City Staff, “to align with state guidelines for landscape water use as described in AB1881, in 2010 San Juan Capistrano determined that the allocation would never be greater than 100% of ET_w and adjusted the April crop coefficient (K_c) from 1.04 to an average of March and May.”



8.7 Appendix 7 – Description of Enterprise Funds

The list below, provided by City staff, describes each Enterprise Fund managed by the City.

1. **Water Enterprise Operating Fund (60)** – This fund records the revenues and expenditures traditionally associated with the day-to-day administration, operations and maintenance of the water system. Generally, water rates are set annually based on projected revenues and expenditures.
2. **Water Enterprise Debt Service Fund (61)** – This fund includes the property tax revenues as well as that portion of the water rates designated for the payment of the annual debt service. This fund includes interest payments and repayment of principal for debt issued to fund Water System Improvements.
3. **Water Enterprise Ground Water Recovery Plant (GWRP) Operations (62)** – This sub-fund of the Water Enterprise Operating Fund records all the revenues and expenditures associated with the day-to-day administration, operations, and capital lease payments on of the City’s Ground Water Recovery Plant. In addition to a portion of the user rates, this fund also receives grant revenues from MWD.
4. **The Water Replacement Fund (63)** – This capital fund is generally funded from water rates and provides for the replacement of the existing domestic water facilities as needed.
5. **Water Capital Improvement Fund (64)** – This capital fund is generally funded from developer impact fees which provide for new and upgraded domestic water facilities. Water rates or other sources such as grants are used to fund improvements and upgrades to the existing domestic water system.
6. **Non-Potable Capital Fund (65)** – This capital fund is generally funded from developer impact fees which provide for new and upgraded recycled water facilities. Water rates or other sources, such as grants are used to fund improvements and upgrades to the existing non-potable water system.

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7. **Sewer Enterprise Operating Fund (70)** – This enterprise fund records the revenues and expenditures traditionally associated with the day-to-day administration, operations and maintenance of the sewer system. Generally, sewer rates are set annually based on projected revenues and expenditures.
8. **Sewer Replacement Funds (71)** – This fund includes the portion of the Sewer user fees collected from each user on a monthly basis and used for replacements for the existing sewer system.
9. **Sewer Improvement Funds (72)** – This fund includes sewer connection fees normally collected from new development to pay for costs of the City's treatment plant facilities, as well as development of new and upgraded sewer facilities as a result of City growth.



8.8 Appendix 8 – Descriptions of Existing Certificates of Participation

The list below, provided by City staff, describes each of the existing Certificates of Participation (COP) the Water Utility is responsible for.

1. The **SAN JUAN CAPISTRANO PUBLIC FINANCING AUTHORITY REVENUE CERTIFICATES OF PARTICIPATION, SERIES 2002 (the “2002 COPS”)** were issued for water system improvements identified in the Domestic Water Master Plan (“DWMP”). The majority of the proceeds were used to construct the “SC-04 South Connectors I and II” connecting the City’s water system to the South County Pipeline (which provides imported water from MWD) at the SC-04 turnout. The balance of the proceeds were allocated to another major domestic water system improvements such as the High West Side Pipeline, Terminal Reservoir No. 3, the 250 South Zone Reservoir and the Ground Water Recovery Plant.
2. The **SAN JUAN CAPISTRANO PUBLIC FINANCING AUTHORITY REVENUE CERTIFICATES OF PARTICIPATION, SERIES 2004 (“2004 COPS”)** were issued to construct water system improvements identified in the Domestic Water Master Plan (“DWMP”) dated May 1999 and updated in April 2004. The proceeds of this financing were used to construct the 6 million gallon “Terminal Reservoir No. 3,” located in the northeast portion of the City; the 4 million gallon “760 South Reservoir,” located in Reservoir Canyon in the McCracken Hill area of the City, and the 1.5 million gallon “Cooks Reservoir,” located off of Cooks Lane on the west side of the City. In addition to the foregoing improvements, the City also funded miscellaneous capital improvements to the City’s domestic water system
3. The **CITY OF SAN JUAN CAPISTRANO REVENUE CERTIFICATES OF PARTICIPATION, SERIES 2009 (“2009 COPS”)** were issued to construct water system improvements identified in the City’s 2008-2015 Water System Capital Improvement Plan consisting principally of the City’s estimated share of the Chiquita Emergency Storage Reservoir to be constructed by Santa Margarita Water District, two new water wells, pipelines and other improvements associated with the City’s Ground Water Recovery Plant; various pipeline improvements and improvements to a City pump station.



8.9 Appendix 9 – Water Customer Classifications and Tier Definition Descriptions

Table 8-14: Descriptions for Water Rate Codes and Service Charge Codes

Usage Rate Codes		Service Charge Codes	
Code	Customer Description	Code	Service Size
WCA	Regular lot	WSA	5/8"
WCB	Large lot	WSB	1"
WCC	Master metered residential	WSC	1.5"
WCD	Multi with own irrigation	WSD	2"
WCE	Multi without irrigation (regular)	WSE	3"
WCN	Multi without irrigation (high density)	WSF	4"
WCF	Landscape	WSG	6"
WCG	Agricultural	WSH	8"
WCH	Commercial	WSI	Miscellaneous flat use
WCI	Construction	WSJ	Mobile homes
WCJ	Non-potable	WSK	Temporary service - jumper
WCK	No charge	WSL	Fireline
WCL	Firelines	WSS	Construction
WCM	City farm	WST	No charge
WCO	Recycled	WSU	Recycled

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Table below, as provided by City staff, shows the detailed description of tier definitions for each customer classification.

Table 8-15: Water Tier Definitions by Customer Classifications

Residential Customer Classifications					
Customer Classification	Tier 1 - Essential Use	Tier 2 - Efficient Use	Total allocation	Tier 3 - Inefficient Use	Tier 4 - Excessive Use
[A] SF Residential - Regular Lot (7,000 sq. ft. or less)	220 gallons per day, minimum of 9 ccf / month	Weather-based allocation for 2,700 sq. ft. landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[B] SF Residential - Large Lot (more than 7,000 sq. ft.)	220 gallons per day, minimum of 9 ccf / month	Weather-based allocation for net irrigable area of landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[C] Master Metered Residential (Mobile home parks & large combined residential units such as retirement homes)	220 gallons per day, minimum of 9 ccf / month per dwelling unit	Weather-based allocation for net irrigable area of landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[D] Multi-family development, each unit having its own irrigation	220 gallons per day, minimum of 9 ccf / month per dwelling unit	Weather-based allocation for 500 sq. ft. landscape per dwelling unit	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[E] Multi-family development, each unit having no irrigation	220 gallons per day, minimum of 9 ccf / month per dwelling unit	Weather-based allocation for 100 sq. ft. landscape per dwelling unit	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[N] Multi-family development, each unit having no irrigation - [was high density]	220 gallons per day, minimum of 9 ccf / month per dwelling unit	Weather-based allocation for 100 sq. ft. landscape per dwelling unit	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
Other Customer Classifications					
	Tier 1 - Essential Use	Tier 2 - Efficient Use	Total allocation	Tier 3 - Inefficient Use	Tier 4 - Excessive Use
[F] Landscape (Potable water)	220 gallons per day, minimum of 9 ccf / month	Weather-based allocation for measured area of landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[G] Agriculture	220 gallons per day, minimum of 9 ccf / month	Weather-based allocation for measured area of landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[H] Commercial	220 gallons per day, minimum of 9 ccf / month	An amount equivalent to the average winter use for each account (Jan - Mar)	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[I] Construction	N/A	N/A	No allocations	All temporary hydrant meters billed at Tier 3 rate	N/A
[J] Non-potable [Landscape]	220 gallons per day, minimum of 9 ccf / month	Weather-based allocation for measured area of landscape	Tier 1 plus Tier 2 = 100% of the allocation	101% - 200% of the allocation	Over 200% of the allocation
[L] Fireline	N/A	N/A	No allocations	Fireline use billed at Tier 3 rate.	N/A
[M] City Farm	combine with G Agriculture classification				
[O] Recycled [Landscape]	combine with J Non-potable classification				

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8.10 Appendix 10 – Sewer Customer Classification Descriptions

Table below, as provided by City staff, shows the detailed description of sewer charges for each customer classification.

Table 8-16: Sewer Customer Classifications Descriptions

Residential Customer Classifications	
Customer Classification	Sewer Charge
[A] SF Residential - Regular Lot (7,000 sq. ft. or less)	Fixed monthly charge (per dwelling unit if more than one)
[B] SF Residential - Large Lot (more than 7,000 sq. ft.)	Fixed monthly charge (per dwelling unit if more than one)
combined residential units such as retirement homes)	Fixed monthly charge per dwelling unit
[D] Multi-family development, each unit having its own irrigation	Fixed monthly charge per dwelling unit
[E] Multi-family development, each unit having no irrigation	Fixed monthly charge per dwelling unit
[was high-density]	Fixed monthly charge per dwelling unit
Other Customer Classifications	
	Sewer Charge
[F] Landscape (Potable water)	None
[G] Agriculture	Fixed monthly residential charge (per dwelling unit if more than one)
[H] Commercial	Fixed monthly charge, plus flow charge based on average winter metered water use; recalculated each July
[I] Construction	None
[J] Non-potable [Landscape]	None
[L] Fireline	None
[M] City Farm	None
[O] Recycled [Landscape]	None
Other Sewer Classifications	
Commercial sewer	Fixed charge, plus per-unit charge based on winter flow (water use in Jan, Feb, March); recalculated each July
Commercial Pools (Large and Small)	Two Commercial Pool categories, Small (under 850 sf surface area) and Large (over 850 sf surface area, each with a designated fixed monthly service charge based on annual historic use.

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8.11 Appendix 11 – Imported Water Supply Cost Projections

Table 8-17: Metropolitan Water District and MWDOC Projected Water Rates

Metropolitan Water District & MWDOC Projected Water Rates														
<i>As of April 17, 2013</i>														
<i>Note these projections are currently being updated</i>														
Projected Rates and Charges	2008							Adopted						
Rates and Charges Effective January 1st	2008	2009	2010*	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
MWD's Readiness-to-Serve Charge (\$Millions)	\$ 82	\$ 92	\$ 114	\$ 125	\$ 146	\$ 142	\$ 166	\$ 171	\$ 176	\$ 180	\$ 185	\$ 190	\$ 195	
RTS	% Increase	12%	24%	10%	17%	-3%	17%	3%	3%	2%	3%	3%	3%	
MWD's Capacity Charge (\$/cfs)	\$ 6,800	\$ 6,800	\$ 7,200	\$ 7,200	\$ 7,400	\$ 6,400	\$ 8,600	\$ 8,600	\$ 8,800	\$ 9,100	\$ 9,400	\$ 9,700	\$ 10,000	
Capacity Charge	% Increase	0%	6%	0%	3%	-14%	34%	0%	2%	3%	3%	3%	3%	
Met TREATED Full Service Rate Projection by MET Staff														
MWD's Treated Tier 1**	\$ 508	\$ 579	\$ 701	\$ 744	\$ 794	\$ 847	\$ 890	\$ 920	\$ 966	\$ 1,014	\$ 1,065	\$ 1,118	\$ 1,174	
\$ Increase	\$ 71	\$ 122	\$ 74	\$ 50	\$ 53	\$ 43	\$ 30	\$ 46	\$ 48	\$ 51	\$ 53	\$ 56	\$ 56	
% Increase	14%	21%	6.1%	6.7%	6.7%	5.1%	3.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
MWDOC Melded Rate***	\$ 14	\$ 18	\$ -	\$ -	\$ -	\$ -	\$ -	To Be Determined Annually by MWDOC						
MWDOC Increment Rate****	\$ 6.5	\$ 6.5	\$ 6.5	\$ 6.75	\$ 4.25	\$ 3.75	\$ 3.25	\$ 2.55	\$ -	\$ -	\$ -	\$ -	\$ -	
Total MWDOC Rate (\$/AF)	\$ 528.50	\$ 603.50	\$ 707.50	\$ 750.75	\$ 798.25	\$ 850.75	\$ 893.25	\$ 923	\$ 966	\$ 1,014	\$ 1,065	\$ 1,118	\$ 1,174	
MWDOC Meter Charge (\$/meter)	\$ 5.50	\$ 5.50	\$ 5.50	\$ 5.75	\$ 6.25	\$ 7.25	\$ 8.40	\$ 8.85	\$ 9.90	\$ 9.95	\$ 10.10	\$ 10.15	\$ 10.25	

[*] In fiscal year 2009/10 the rate increase became effective September 1, 2009. However, the RTS and the Capacity Charge increased remained on January 1, 2010

[**] As part of the 2010 rate increase a Delta Supply Surcharge was assessed on Tier 1 treated water. This Delta Supply Surcharge was suspended after 2012

[***] Due to lower than expected water sales and the amount in the Tier 2 contingency fund, MWDOC does not anticipate paying Tier 2 rates, therefore the MWDOC Melded Rate is currently suspended and set at "0". Staff will monitor the fund and demand projections annually to determine if the melded rate needs to be reinstated.

[****] MWDOC's increment rate will decrease annually ending in 2016 per the MWDOC settlement agreement with the member agencies. After 2016 all of MWDOC's revenue will be collected on the Meter Charge.

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8.12 Appendix 12 – Water Supply Costs (Extracted from Financial Plan & COS Model)

Table 8-18: Groundwater Recovery Plant and MWD Import Costs

CITY OF SAN JUAN CAPISTRANO Groundwater Recovery Plant and MWD Import Costs							
Groundwater Recovery Plant Annual Cost Summary							
	FY 2014 Amended Budget	FY 2015 Projected Cost	FY 2016 Projected Cost	FY 2017 Projected Cost	FY 2018 Projected Cost	FY 2019 Projected Cost	FY 2020 Projected Cost
Acre Feet Produced ⁽¹⁾	3,843	4,187	4,187	4,187	4,187	4,187	4,187
Production Cost							
Production Cost ⁽²⁾	\$2,523,605	\$3,281,199	\$3,212,316	\$3,325,748	\$3,447,959	\$3,575,064	\$3,707,274
Less: MWD Grant Reimbursement ⁽³⁾	-\$960,750	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870	-\$1,046,870
Net Production Cost	\$1,562,855	\$2,234,329	\$2,165,446	\$2,278,878	\$2,401,089	\$2,528,194	\$2,660,404
Cost per AF	\$406.68	\$533.63	\$517.18	\$544.27	\$573.46	\$603.82	\$635.40
Lease Payments - SJBA ⁽⁴⁾	\$2,235,562	2,233,513	2,232,469	2,228,538	2,226,588	2,226,366	2,222,713
Cost per AF	\$581.72	\$533.44	\$533.19	\$532.25	\$531.79	\$531.73	\$530.86
Net Production Cost, plus SJBA lease payment	\$3,798,417	\$4,467,841	\$4,397,914	\$4,507,415	\$4,627,677	\$4,754,560	\$4,883,116
Net Production Cost per Acre Foot - GWRP	\$988.40	\$1,067.07	\$1,050.37	\$1,076.53	\$1,105.25	\$1,135.55	\$1,166.26
Remaining Capital Cost Component							
Capital Costs - Annual Amortization ⁽⁵⁾	\$819,725	\$954,725	\$954,725	\$954,725	\$954,725	\$954,725	\$954,725
Remaining Annual Capital Cost Component - GWRP	\$819,725	\$954,725	\$954,725	\$954,725	\$954,725	\$954,725	\$954,725
Remaining Annual Capital Cost per Acre Foot - GWRP	\$213.30	\$228.02	\$228.02	\$228.02	\$228.02	\$228.02	\$228.02
Total Annual Cost	\$4,618,142	\$5,422,566	\$5,352,640	\$5,462,140	\$5,582,402	\$5,709,285	\$5,837,841
Net Commodity Cost per Acre Foot - GWRP	\$1,201.70	\$1,295.10	\$1,278.39	\$1,304.55	\$1,333.27	\$1,363.57	\$1,394.28

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	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Amended Budget ⁽²⁾	Projected Cost ⁽³⁾					
Total Acre Feet Imported ⁽⁶⁾	3,818	3,130	3,130	3,130	3,130	3,130	3,130
Commodity Cost							
Commodity Cost-MWDOC ⁽⁶⁾	\$3,328,586	\$2,840,680	\$2,951,640	\$3,098,753	\$3,253,690	\$3,416,453	\$3,587,041
Commodity Cost per AF - Import	\$871.75	\$907.55	\$943.00	\$990.00	\$1,039.50	\$1,091.50	\$1,146.00
Fixed Annual Cost-MWDOC ⁽⁶⁾	\$536,217	\$553,961	\$579,443	\$594,036	\$610,179	\$625,626	\$642,084
Regional Pipeline Operational Cost ⁽⁷⁾	\$180,258	\$225,000	\$231,750	\$238,703	245,864	253,239	260,837
Fixed Cost - Import	\$716,475	\$778,961	\$811,193	\$832,738	\$856,043	\$878,865	\$902,921
Fixed Cost per AF - Import	\$187.64	\$248.86	\$259.16	\$266.05	\$273.49	\$280.78	\$288.47
Annual Commodity Cost - Import	\$4,045,061	\$3,619,640	\$3,762,833	\$3,931,491	\$4,109,733	\$4,295,318	\$4,489,961
Net Commodity Cost per Acre Foot - Import	\$1,059.39	\$1,156.41	\$1,202.16	\$1,256.05	\$1,312.99	\$1,372.28	\$1,434.47
		9.2%	4.0%	4.5%	4.5%	4.5%	4.5%
Remaining Capital Cost Component							
Capital Costs - Annual Amortization ⁽⁸⁾	\$712,328	\$725,775	\$732,499	\$735,328	\$738,156	\$740,984	\$743,813
Annual Capital Cost Component - Import	\$712,328	\$725,775	\$732,499	\$735,328	\$738,156	\$740,984	\$743,813
Annual Capital Cost per Acre Foot - GWRP	\$187	\$232	\$234	\$235	\$236	\$237	\$238
Total Annual Cost	\$4,757,388	\$4,345,415	\$4,495,333	\$4,666,819	\$4,847,889	\$5,036,303	\$5,233,774
Cost per Acre Foot	\$1,245.95	\$1,388.29	\$1,436.18	\$1,490.97	\$1,548.82	\$1,609.02	\$1,672.10
Total average cost of water supply/AF	\$1,223.76	\$1,334.96	\$1,345.89	\$1,384.29	\$1,425.48	\$1,468.57	\$1,513.12
<p>(1) Production based on amounts certified to MWD through FY 2012/13, and FY 2013/14 projected production thereafter. For FY 2012/13, actual production was 3,611, however only 3,607 was reported to MWD.</p> <p>(2) Actual costs from City financial records through FY 2012/13; Amended Budget for FY 2013/14; and 5% increase for year thereafter.</p> <p>(3) Based on \$250 per acre foot of production certified to MWD. For FY 2006/07 includes an adjustment of \$7,350 from MWD.</p> <p>(4) SJBA lease payment costs, offset by interest on debt service reserve applied through FY 2012/13. Amounts for FY 2013/14 through FY 2016/17 do not include any offset for interest on debt service reserve.</p> <p>(5) Capital Costs incurred directly by the City and amortized through the end of the SJBA lease revenue bond period. [not included in the O&M]</p> <p>(6) Based on actual acre feet of water billed by MWDOC through FY 2012/13. FY 2013/14 through FY 2019/20 is based on FY 2013/14 projected import and MWD/MWDOC rate projections as of April 17, 2013.</p> <p>(7) Actual costs from City financial records through FY 2012/13; Amended Budget for FY 2013/14; and 3% increase for year thereafter.</p> <p>(8) Based on City's share of capital costs in regional transportation pipelines for imported water from capital asset and investment in joint venture records.</p>							
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
MWD Information							
Treated Tier 1							
Cost per Acre Foot (July - December)	\$847.00	\$890.00	\$920.00	\$966.00	\$1,014.00	\$1,065.00	\$1,118.00
Cost per Acre Foot (January - June)	\$890.00	\$920.00	\$966.00	\$1,014.00	\$1,065.00	\$1,118.00	\$1,174.00
Treated Tier 1 Cost per Acre Foot - MWD	\$868.50	\$905.00	\$943.00	\$990.00	\$1,039.50	\$1,091.50	\$1,146.00
MWDOC rate/AF	\$3.25	\$2.55	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Treated Tier 1 Cost per Acre Foot - MWD + MWDOC	\$871.75	\$907.55	\$943.00	\$990.00	\$1,039.50	\$1,091.50	\$1,146.00
Fixed Annual Costs							
Readiness to Serve (RTS)	\$327,700	\$337,531	\$347,657	\$358,087	\$368,829	\$379,894	\$391,291
MWD Capacity Charge	97,769	100,702	103,723	106,835	110,040	113,341	116,741
MWDOC Operating Charge (Per Meter)	95,474	99,996	111,860	112,425	114,120	114,685	115,815
SCP Operation Surcharge	15,273	15,731	16,203	16,689	17,190	17,706	18,237
	\$536,217	\$553,961	\$579,443	\$594,036	\$610,179	\$625,626	\$642,084

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8.13 Appendix 13 – Pricing Objective Responses Received from Utilities Commission and City Council

Table 8-19: Received Pricing Objective Responses

Pricing Objectives	Council S. Allevato	Council R. Byrnes	Council L. Kramer	Council D. Reeve	Council J. Taylor	Commission D. Glasgow	Commission R. Hartl	Commission T. Lytle	Commission R. Miller
Promotes Conservation	2	5 (N/A)	2	N / A	2	3	2		1
Promotes Efficiency	3	5 (N/A)	1	N / A	1	4	2	3	1
Target Outdoor Water Use	3	5 (N/A)	3	N / A	4	2	1		2
Revenue Stability	1	5 (N/A)	1	N / A	1	1	2	1	2
Provide Funding Mechanism for Conservation Program	3	5 (N/A)	2	N / A	4	3	3		3
Rate Stability	2	5 (N/A)	3	N / A	2	1	2	1	1
Mitigate Customer Impact	3	5 (N/A)	2	N / A	3	1	2	3	3
Affordability for Essential Use	1	5 (N/A)	1	N / A	1	1	3	2	2
Equitable in Allocating Water Resource Cost	1	5 (N/A)	2	N / A		2	2		2
Equitable in Allocating CIP Cost	3	5 (N/A)	4	N / A	3	2	2		2
Perceived to be Fair to the Public	2	5 (N/A)	1	N / A	1	1	2	1	1
Consistent Residential Rates (SFR vs. MFR)	4	5 (N/A)	2	N / A	2	4	3		2
Based On Individual Needs	4	5 (N/A)	2	N / A	4	4	3	3	3
Single Rate for Potable Customer Class	3	5 (N/A)	4	N / A	4	2	4		3
Customer Understanding	3	5 (N/A)	1	N / A	1	3	2	2	1
Ease of Implementation	3	5 (N/A)	4	N / A	3	4	3	2	2
Ease of Administration	3	5 (N/A)	3	N / A	4	4	3	3	2
Scientific Method	3	5 (N/A)	2	N / A	2	2	3		3