



2016 Rate Study Report

Mission Creek Sub-basin Replenishment Fund

MARCH 1, 2016

March 1, 2016

Katherine Godbey
Director of Finance, Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92260

Dear Ms. Godbey:

Hawksley Consulting is pleased to provide this Mission Creek Sub-basin Replenishment Program financial plan and rate recommendation report (Report). This Report encompasses a great deal of effort from not only Hawksley Consulting, but also from you and your staff. We are very thankful for the time and dedication put into the study by the Coachella Valley Water District. Our efforts were completed using standard cost allocation and rate setting principles established by the American Water Works Association (AWWA) and in compliance with the State of California Water Code.

The enclosed Report is a comprehensive but not exhaustive description of our analysis methodology and findings.

Sincerely,



Mark Hildebrand
Project Manager

Executive Summary

2016 Mission Creek RAC Rate Study Report

Coachella Valley Water District (CVWD) engaged Hawksley Consulting, a subsidiary of MWH Global, to study CVWD’s Mission Creek Replenishment program’s finances and develop recommendations for updating the Mission Creek Replenishment Assessment Charge (RAC) rates. The five-year rate schedule recommended in the Mission Creek RAC Rate Study Report (Report) reflects CVWD’s cost of providing replenishment services. CVWD currently operates its Replenishment Program as three separate “areas of benefit”; the East Whitewater River Sub-basin Area of Benefit, the West Whitewater River Sub-basin Area of Benefit, and the Mission Creek Sub-basin Area of Benefit (each Benefit Area is also referred to in this Report as a service area). This Report focuses on the Mission Creek Sub-basin Area of Benefit.

The purpose of this Report is to assess CVWD’s Mission Creek Replenishment Program rate revenue requirements, to evaluate the cost of providing service to customers, and to present rate recommendations for equitably collecting revenue based on the cost of providing service. RAC rates are levied in accordance with State of California Water Code Sections 31630 – 31639.

Hawksley Consulting used standard water utility ratemaking practices to calculate the proposed rates as promulgated by the American Water Work Association (AWWA). The methodology used in this Report is consistent with industry standards established by AWWA’s M1 Manual (Principles of Water Rates, Fees and Charges: Manual of Water Supply Practices M1), which documents many of the standards used by professionals in the water utility rate-setting industry. The basis for the proposed rate schedules comply with all requirements as stipulated by State of California law.

The Report’s revenue requirements analysis compares the revenues of the replenishment program to its operating and capital costs to determine the adequacy of the existing rates to recover the program’s costs. State of California Water Code Sections 31630 – 31639 only allows for a uniform volumetric rate to be charged to groundwater producers.

The O&M budget is projected to increase from less than \$300 thousand in FY2015 to over \$900 thousand in FY2024, due to increases in water purchase costs. Mission Creek Replenishment Program has not expected capital spending during the study period.

The Mission Creek Sub-basin Replenishment Fund (Replenishment Fund) receives the large majority of its revenue from RAC rates. In the event that CVWD doesn’t adjust the RAC rate or issue debt, the fund is forecasted to drop below its reserve targets starting in FY2021 and the fund’s cash balance is expected to go below zero in 2021.

The Report recommends adopting the rate adjustments summarized in the table below.

	Current		Proposed			
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Percent Increase	13.4%	10.0%	10.0%	10.0%	10.0%	10.0%
RAC Rate (\$/AF)	\$112.00	\$123.20	\$135.52	\$149.07	\$163.98	\$180.38

Coachella Valley Water District 2016 Mission Creek RAC Rate Study Report

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1. INTRODUCTION

Coachella Valley Water District (CVWD) engaged Hawksley Consulting, a subsidiary of MWH Global, to study CVWD's Mission Creek Replenishment Program's finances and develop recommendations for updating the Mission Creek Sub-basin Replenishment Assessment Charge (RAC) rates. The rates recommended in this Mission Creek RAC Rate Study Report (Report) reflect CVWD's cost of providing replenishment services to customers in the Mission Creek service area (see Appendix A for a map of the area of benefit). This Report includes a long-range financial plan and culminates in a recommended five-year rate schedule for the Mission Creek RAC rates.

1.1 SYSTEM OVERVIEW

CVWD is a special district governed by a five-member Board of Directors. It was formed in 1918 to protect and conserve local water sources. Among other services, CVWD uses imported Colorado River water to artificially replenish the aquifer at three sites throughout the Coachella Valley. In the 1960s CVWD and Desert Water Agency entered into separate contracts with the State of California to purchase water from the State Water Project. Through an agreement with Metropolitan Water District of Southern California, the two agencies use their entitlement to State Water Project water in exchange for Colorado River water to replenish the Mission Creek Sub-basin at the Mission Creek Groundwater Replenishment Facility. This facility was jointly constructed by CVWD and Desert Water Agency in 2001 and replenishment began in 2002. More than 150,000 acre-feet of imported water has been replenished at this site.

CVWD is authorized by State Water Code to levy and collect RACs from groundwater producers within the areas that benefit from groundwater replenishment. CVWD has implemented replenishment programs in three separate "areas of benefit"; the East Whitewater River Sub-basin Area of Benefit, the West Whitewater River Sub-basin Area of Benefit, and the Mission Creek Sub-basin Area of Benefit. These three areas of benefit have their own RAC rates and their funds are largely managed separately. This Report focuses on the RAC rates for the Mission Creek Sub-basin Area of Benefit and associated Mission Creek Sub-basin Replenishment Fund (Replenishment Fund).

1.2 PURPOSE OF THE REPORT

The purpose of this Report is to assess CVWD's Mission Creek Replenishment Program rate revenue requirements, to evaluate the cost of providing service to customers, and to present rate recommendations for equitably collecting revenue based on the proportionate costs of providing service within the Mission Creek service area. RAC rates are levied in accordance with State of California Water Code Sections 31630 – 31639 and California Constitution article XIII D, section 6.

CVWD is a community-oriented utility dedicated to serving its customers and the environment with reliable, economical, and high-quality domestic water, sanitation, stormwater protection, flood control, agricultural irrigation/drainage, groundwater replenishment and imported water services. The financial planning associated with this Report furthers these goals by developing rates that support CVWD's financial goals and policies.

1.3 PROJECT METHODOLOGY

Hawksley Consulting used standard water utility ratemaking practices to calculate the proposed rates as promulgated by the American Water Works Association (AWWA). The basis for the proposed rate schedules follows industry-accepted cost-of-service principles and complies with all requirements as stipulated by State of California law.

This project followed three major phases:

1. **Financial planning** compares the overall revenues of the Mission Creek Replenishment Program to its overall revenue requirements in order to determine the rate adjustments needed over a multi-year period. The revenue requirements methodology used in this Report is consistent with industry standards established by AWWA's M1 Manual¹, which documents many of the standards used by professionals in the water utility rate-setting industry. This Report's revenue requirements analysis compares the revenues of the utility to its operating and capital costs to determine the adequacy of the existing rates to recover the utility's costs. The revenue requirements are analyzed through the development of a long-term financial plan. Based on the best information currently available, the current financial plan incorporates projected operations and maintenance costs, capital expenses, debt issuances and service, and growth assumptions to estimate annual revenue requirements.
2. A **cost-of-service analysis** is used to proportionally allocate the revenue requirements for a utility service among the utility's various customer classes. In this case, there is only one class of customer therefore the cost-of-service requirements are limited to ensuring that the RAC rates do not collect more than the Replenishment Fund's revenue requirements.
3. The final part of the analysis, **rate design**, determines how rate revenues will be collected from customers in a manner that respects the results of the cost-of-service analysis while also addressing CVWD goals and objectives for pricing. In this case the rate design is dictated by the enabling legislation (State of California Water Code Sections 31630 – 31639) which limits the RAC rate structure to a uniform volumetric rate, and California Constitution article XIII D, section 6 (see Section 2.3.2).

1.4 INTENDED USE AND USERS OF THIS REPORT

This Report is intended to provide a summarized discussion of the technical analysis completed by Hawksley Consulting in completing the associated study. As such, this Report explains our methodologies, materials considered, key assumptions, findings and recommendations. No other use is intended or implied. This Report and its contents are the property of CVWD. CVWD may choose to distribute this Report to others; however this Report itself was prepared solely for the use of CVWD.

1.5 SOURCES OF INFORMATION USED IN THIS REPORT

We have reviewed a number of documents provided by CVWD during the course of our study. A summary of the key information reviewed includes, but is not limited to:

¹ Principles of Water Rates, Fees and Charges: Manual of Water Supply Practices M1 (Sixth Edition).

1. Actual revenues and expenses for Fiscal Year (FY) 2013 through FY2015 and forecasts for FY2016 through FY2027 (“FY 2016-2020 Revised Budget for RAC & Domestic COSS - October 28 Meeting - Mark H.xls”)
2. Ten-year Capital Improvement Plan (“10 - year NPW CIP 2016 – 2025.xls”)
3. Debt Service Schedule (“Debt Service Schedule - 01.12.15.xls”)
4. Projected State Water Project revenues (“SWP - Cash Flow.xls”)
5. Historical Replenishment Program water use (“FY 2015 RAC consumption.xls”)
6. Reserve policies (adopted February 2014)
7. CVWD cost allocation summary (“803 distribution percentages AA.xls”)
8. State of California Water Code (specifically Sections 31630 – 31639)

In addition, this Report is based on the results produced by the financial model for the Replenishment Fund (“Mission Creek Replenishment Financial Plan final.xls”), which may reference additional data sources. All such documents are on file with CVWD.

1.6 ACRONYMS

AF	acre foot
AWWA	American Water Work Association
CIP	Capital Improvement Plan
CVWD	Coachella Valley Water District
DSC	debt service coverage
FY	fiscal year ending June 30
MGD	millions of gallons per day
O&M	operation and maintenance
RAC	Replenishment Assessment Charge

2. FINANCIAL PLAN

As a first step, Hawksley Consulting evaluated the long-term financial sustainability of the Mission Creek Replenishment Program by projecting CVWD's future expenses for a ten-year period. By also projecting future revenues with existing rates, the analysis yields the required change in rate revenue needed over a ten-year period. As detailed below, the financial plan model considers the costs of operations and maintenance (O&M), capital, and debt, while also accounting for non-rate revenue, reserve targets and financial performance metrics.

2.1. OPERATING RESERVE POLICIES

CVWD has adopted target reserve policies in order to maintain sufficient working capital in CVWD's enterprise funds so as to mitigate current and future risks and promote stable services and revenues. The stated objectives of CVWD's reserve policies are:

- To establish sound formal fiscal reserve guidelines to ensure strong fiscal management that guide future CVWD decisions.
- To build adequate reserves over time. This action will provide CVWD with resources to help stabilize CVWD's finances, and position it more easily to absorb economic downturns or large-scale emergencies.
- To help smooth rates from year to year, and to promote equity over the years to ratepayers.
- To provide funding for current and future replacement of existing assets as they reach the end of their useful lives.
- To assist CVWD in meeting its short-term and long-term obligations and to ensure that CVWD maintains the highest possible credit rating.

CVWD's Reserve Policy was last updated in February 2016. The following are CVWD's operating reserve policies as adopted by the Board:

Operating Reserves – The Operating Reserves cover operating costs for an established period of time.

This reserve ensures continuity of service regardless of cash flow, and is considered working capital to be used to fund current expenses as needed. The Board recommends maintaining operating reserves at 90 days, or 25% of current year budgeted expenses (less depreciation).

Rate Stabilization – This reserve is intended to smooth rate volatility during short to mid-term rate revenue loss, property tax revenue loss and/or higher than anticipated budget costs that cannot be supported by normal revenues. Rate Stabilization funds can be used to balance the budget if revenues are projected to be 10% less than prior year actual revenues, or if expenses are projected to be 10% more than prior year actual expenses. The Board recommends establishing the reserve at the higher of 10% of current year budgeted rate revenues (which is an amount that could be lost if customers conserve at a higher level) or 10% of total costs less depreciation (which could occur due to increased water and power costs).

Capital Improvement Program – This reserve is designated for funding capital assets and is designed to stabilize funding for capital by accumulated "pay-as-you-go" reserves. This reserve can also be used in concurrence with outside funding sources. This reserve fund is generally established for capital items/projects with a cost of \$10,000 or more and a useful life of one year or greater. The Board has recommended that this reserve should be set at the 5-year average of the CIP.

This section addresses the fund's operating reserves but not the SWP reserve, which is managed separately.

Table 2-1 summarizes the Replenishment Fund's reserve targets in FY 2016.

Table 2-1 – Summary of Operating Reserve Targets

Reserve	<i>Approximate FY2016 Target</i>
Operating	\$115,750
Rate Stabilization	\$48,093

The rates that are recommended in this Report have been developed with the intent of managing reserves levels in such a way that targets are met by the end of the study period.

2.2. REPORT GENERAL ASSUMPTIONS

The financial plan model employs assumptions to calculate future year revenues and expenses where budget projections are not available. The financial plan model uses the most recent audited financial information and Board adopted budgets for the study period.

2.2.1. INFLATION ASSUMPTIONS

All forecasted O&M budget values were provided by CVWD and included inflation assumptions, which are generally assumed to inflate at a rate of 3% to 3.5%.

2.2.2. GROUNDWATER CONSUMPTION

CVWD does not expect increases in the use of groundwater in the Mission Creek area of benefit over the next ten years. In fact, the area of benefit is expected to experience an 11.3% decrease in groundwater production during the 5-year study period due to conservation, which will impact revenues for the Replenishment Fund. All groundwater consumption projections have been provided by CVWD staff. The projected groundwater production values are provided in Appendix B and Appendix C.

2.2.3. DEBT FINANCING ASSUMPTIONS

Debt service coverage (DSC) is an important indicator of a utility's indebtedness and ability to pay for debt. DSC is calculated by dividing net revenue and the annual debt service payments. At this time, CVWD doesn't have a formal DSC policy because the agency hasn't historically issued debt. While this Report does not recommend the issuance of debt for the Replenishment Fund, scenarios were considered that involved the issuance of debt. In those instances, a minimum DSC of 1.75 was assumed. We have assumed that debt would carry an interest rate of 5%, an amortization period of 30 years, and a one-time issuance cost of 1.5%.

2.3. REPLENISHMENT FUND FINANCIAL PLAN

This financial plan measures the Replenishment Fund's revenue requirements versus its sources of revenues.

2.3.1. REVENUE REQUIREMENTS

Typically a fund's costs are divided into O&M costs and capital costs; however, the Mission Creek Replenishment Program has no expected CIP spending over the course of the planning period.

The financial plan model was populated with 12 years of O&M budget projections (FY 2016 – FY2027), see Table 2-2 and Appendices A & B. All cost projections are based on CVWD staff's best available data.

Water purchase costs are projections based on available water contracts and anticipated drought conditions.

Table 2-2 – Current and Forecasted O&M Expenses²

	<i>FY2015</i>	<i>FY2016</i>	<i>FY2017</i>	<i>FY2018</i>	<i>FY2019</i>
	Actuals	Budget	Projected	Projected	Projected
Salaries and Benefits	\$138,384	\$151,000	\$155,000	\$159,000	\$163,000
Supplies & Services	78,105	129,000	120,000	124,000	128,000
Utilities	745	1,000	1,000	1,000	1,000
Water Purchases	57,272	179,000	508,000	519,000	519,000
Capital Outlay	6,815	3,000	5,000	9,000	3,000
Total Operating Expenses	\$281,321	\$463,000	\$789,000	\$812,000	\$814,000
<i>Change over previous year</i>		64.6%	70.4%	2.9%	0.2%

	<i>FY2020</i>	<i>FY2021</i>	<i>FY2022</i>	<i>FY2023</i>	<i>FY2024</i>
	Projected	Projected	Projected	Projected	Projected
Salaries and Benefits	\$167,000	\$171,000	\$176,000	\$182,000	\$188,000
Supplies & Services	132,000	137,000	142,000	147,000	152,000
Utilities	1,000	1,000	1,000	1,000	1,000
Water Purchases	537,000	554,000	571,000	587,000	605,000
Capital Outlay	3,000	3,000	3,000	3,000	3,000
Total Operating Expenses	\$840,000	\$866,000	\$893,000	\$920,000	\$949,000
	3.2%	3.1%	3.1%	3.0%	3.2%

Appendix B provides a detailed summary of the Replenishment Fund financial forecast under the scenario where rates are not adjusted and debt isn't issued.

2.3.2. STATE WATER PROJECT

Mission Creek benefit area incurs costs associated with purchases of State Water Project water and receives State Water Project property tax revenue which it uses to offset those costs. Those costs and revenues associated with State Water Project water are managed in a separate reserve from the Replenishment Fund and are not considered in this Report.

2.3.3. EXISTING REVENUE

Water Code Sections 31630 – 31639 authorize CVWD to charge a uniform (per acre foot) RAC rate to groundwater producers who collectively pump more than 25 acre-feet of water in any year from a well or multiple wells located within the designated areas of benefit. The revenues from RAC rates can only be used for the purpose of paying: a) specific charges listed in California Water Code Section 31633 imposed under contract between CVWD and the state for an imported water supply from the State Water Project, b) the cost of recharging the groundwater with imported water from the State Water Project, c)

² Salaries and benefits numbers are less capitalized labor.

the cost of recharging the groundwater with water from other sources, d) the cost of treating and distributing reclaimed water for use in place of groundwater, and e) the cost of implementing incentive programs to use Colorado River water or reclaimed water in place of groundwater.

Mission Creek RAC rates are currently \$112 / AF.

The Replenishment Fund receives rate revenue from RAC rates as well as interest earnings from invested reserves³. Table 2-3 shows a summary of the Replenishment Fund's projected revenues through FY 2024 assuming no rate adjustments.

Table 2-3 – Current and Projected Revenues (No Rate Adjustment)

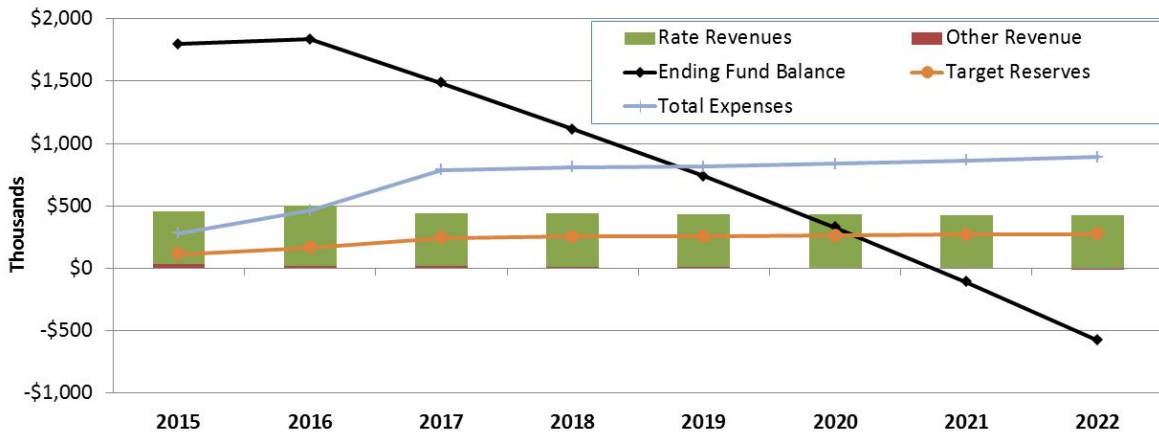
	<i>FY2015</i> Actuals	<i>FY2016</i> Forecast	<i>FY2017</i> Forecast	<i>FY2018</i> Forecast	<i>FY2019</i> Forecast
Rate Revenue	\$418,942	\$480,928	\$426,608	\$426,608	\$426,608
Other Charges	819	0	0	0	0
Investment Income	38,147	18,068	16,526	12,953	9,218
Total Operating Revenues	\$457,908	\$498,996	\$443,134	\$439,561	\$435,826
	<i>FY2020</i> Forecast	<i>FY2021</i> Forecast	<i>FY2022</i> Forecast	<i>FY2023</i> Forecast	<i>FY2024</i> Forecast
Rate Revenue	\$426,608	\$426,608	\$426,608	\$426,608	\$426,608
Other Charges	0	0	0	0	0
Investment Income	5,306	1,096	(3,422)	(8,256)	(13,417)
Total Operating Revenues	\$431,914	\$427,704	\$423,186	\$418,352	\$413,191

2.4. REPLENISHMENT FUND PROJECTIONS

Figure 2-1 and Appendix B show the projected financial condition of the Replenishment Fund if no rate adjustments are made and no new debt is issued. While the Replenishment Fund currently has healthy reserves, the current annual revenue is insufficient to meet the fund's projected revenue requirements (i.e., the operating budget).

³ Mission Creek Replenishment Fund also receives property tax revenue to pay for State Water Project expenses. The property tax revenues go to the respective SWP reserve, see Section 2.3.2.

Figure 2-1 – Replenishment Fund with No Rate Adjustments



As shown in more detail in Appendix B, the Replenishment Fund is forecasted to drop below its reserve targets **starting in FY2019** and the fund’s cash balance is expected to **go below zero in 2021**.

3. RECOMMENDED FINANCIAL STRATEGY

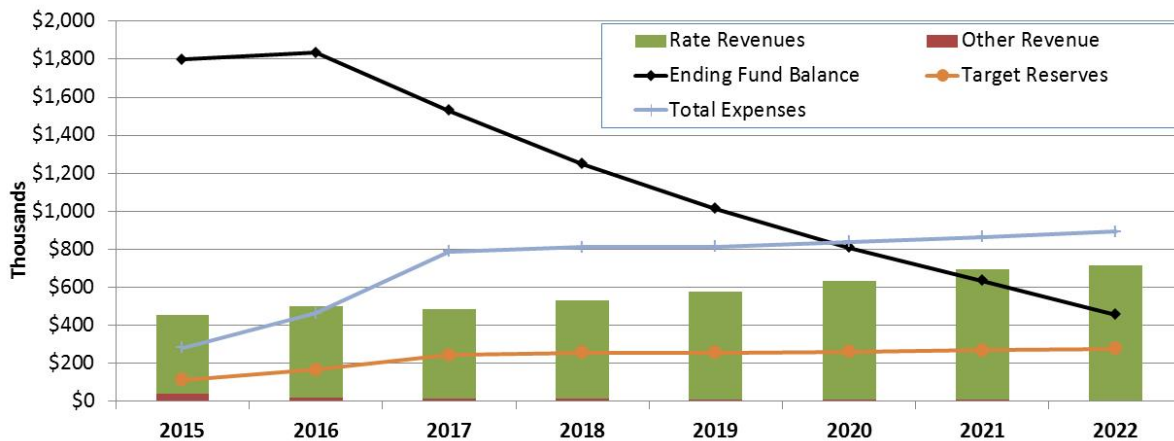
The follow describes the recommended strategy of making adjustments to the RAC rate to increase rate revenue. As detailed in Appendix C, this Report recommends adopting the rate adjustments summarized in Table 3-1.

Table 3-1 – Summary of Proposed RAC Adjustments and Rates by Year

	Current	Proposed				
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Percent Increase	13.4%	10.0%	10.0%	10.0%	10.0%	10.0%
RAC Rate (\$/AF)	\$112.00	\$123.20	\$135.52	\$149.07	\$163.98	\$180.38

Figure 3-1 depicts the Replenishment Fund’s revenues, expenses, and reserve levels based on the projected financial outcome of implementing the above financial strategy (Appendix C provides a detailed cash flow proforma of the same). This strategy is intended to decelerate the decline of the fund’s reserves so that reserve targets are met around FY 2024.

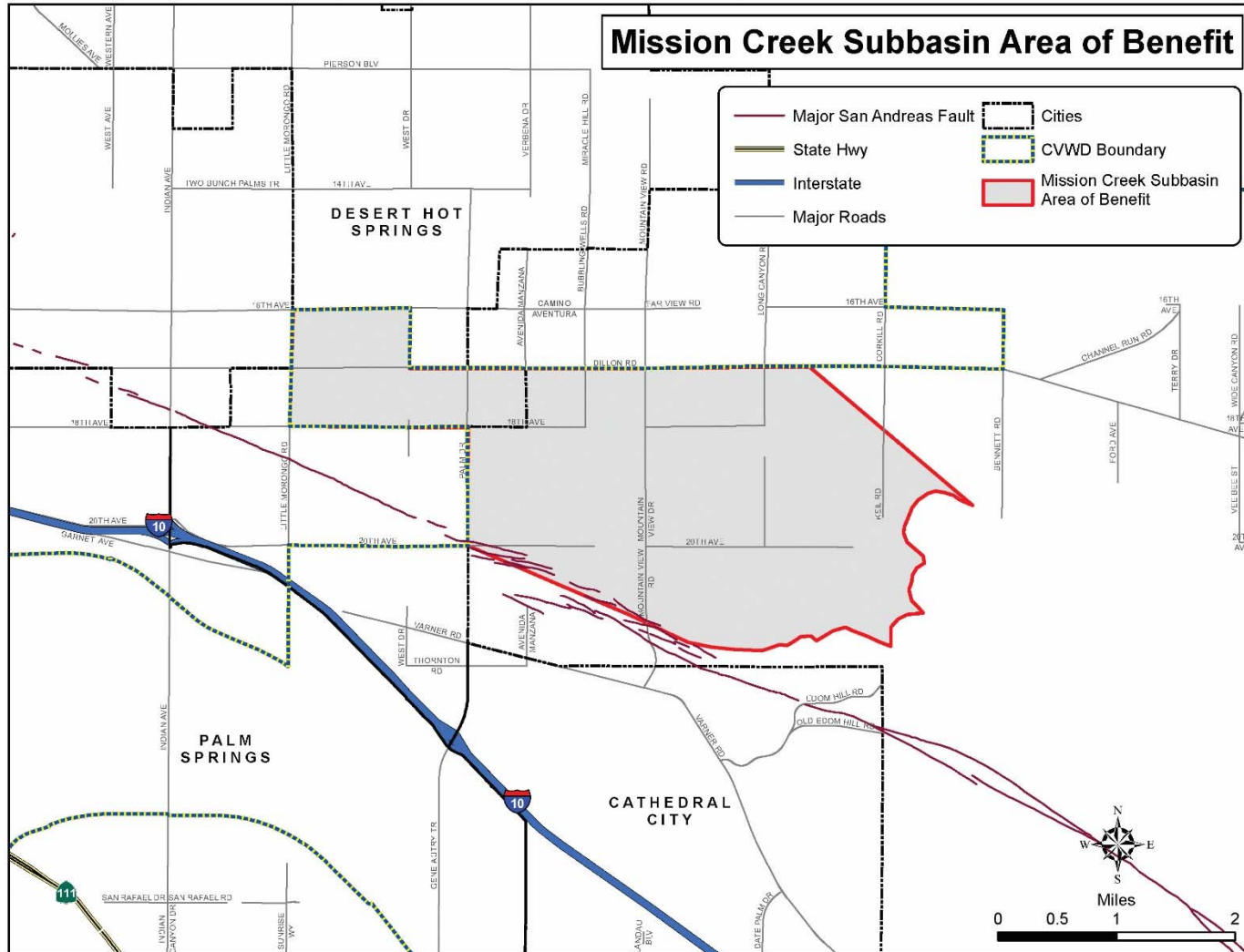
Figure 3-1 – Replenishment Fund with Recommended Rate Adjustments



4. CONCLUSION

This Report used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable law, including Proposition 218. The recommended Mission Creek Sub-basin Replenishment program service rates reflect the cost of providing the associated service.

Appendix A – Mission Creek Sub-basin Area of Benefit



Appendix B – Mission Creek Sub-basin Replenishment Fund Proforma – No Rate Adjustments

	FY2015 Actuals	FY2016 Budget	FY2017 Forecast	FY2018 Forecast	FY2019 Forecast	FY2020 Forecast	FY2021 Forecast	FY2022 Forecast	FY2023 Forecast	FY2024 Forecast
Rate Revenue Increase	na	na	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rate (\$/AF)	\$99.94*	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00	\$112.00
Groundwater Production	4,192	4,294	3,809	3,809	3,809	3,809	3,809	3,809	3,809	3,809
	* average rate based on actual revenue and sales									
Revenues										
Rate Revenue	\$ 418,942	\$ 480,928	\$ 426,608	\$ 426,608	\$ 426,608	\$ 426,608	\$ 426,608	\$ 426,608	\$ 426,608	\$ 426,608
Other Charges	819	-	-	-	-	-	-	-	-	-
Investment Income	38,147	18,068	16,526	12,953	9,218	5,306	1,096	(3,422)	(8,256)	(13,417)
Total Revenues	\$ 457,908	\$ 498,996	\$ 443,134	\$ 439,561	\$ 435,826	\$ 431,914	\$ 427,704	\$ 423,186	\$ 418,352	\$ 413,191
Operating Expenses										
Salaries, Wages, and Benefits	\$ 138,384	\$ 151,000	\$ 155,000	\$ 159,000	\$ 163,000	\$ 167,000	\$ 171,000	\$ 176,000	\$ 182,000	\$ 188,000
Supplies & Services	78,105	129,000	120,000	124,000	128,000	132,000	137,000	142,000	147,000	152,000
Utilities	745	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Water Purchases	57,272	179,000	508,000	519,000	519,000	537,000	554,000	571,000	587,000	605,000
Minor Capital Outlay	6,815	3,000	5,000	9,000	3,000	3,000	3,000	3,000	3,000	3,000
Total Operating Expenses	\$281,321	\$463,000	\$789,000	\$812,000	\$814,000	\$840,000	\$866,000	\$893,000	\$920,000	\$949,000
Net Revenues	\$ 176,587	\$ 35,996	\$ (345,866)	\$ (372,439)	\$ (378,174)	\$ (408,086)	\$ (438,296)	\$ (469,814)	\$ (501,648)	\$ (535,809)
Debt Service										
Debt Service Payments (existing)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Payments - (future)	-	-	-	-	-	-	-	-	-	-
Total Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Spending	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Proceeds	-	-	-	-	-	-	-	-	-	-
Cash-Funded Capital	-	-	-	-	-	-	-	-	-	-
One-time transfer from SWP Fund	-	-	-	-	-	-	-	-	-	-
Total Revenue Requirements	\$ 281,321	\$ 463,000	\$ 789,000	\$ 812,000	\$ 814,000	\$ 840,000	\$ 866,000	\$ 893,000	\$ 920,000	\$ 949,000
Revenues Over (Under) Expenses	\$ 176,587	\$ 35,996	\$ (345,866)	\$ (372,439)	\$ (378,174)	\$ (408,086)	\$ (438,296)	\$ (469,814)	\$ (501,648)	\$ (535,809)
Beginning Balance	\$ 1,621,232	\$ 1,797,819	\$ 1,833,815	\$ 1,487,949	\$ 1,115,510	\$ 737,336	\$ 329,250	\$ (109,046)	\$ (578,861)	\$ (1,080,508)
Ending Balance	\$ 1,797,819	\$ 1,833,815	\$ 1,487,949	\$ 1,115,510	\$ 737,336	\$ 329,250	\$ (109,046)	\$ (578,861)	\$ (1,080,508)	\$ (1,616,317)
Reserve Target	\$ 112,224	\$ 163,843	\$ 239,911	\$ 245,661	\$ 246,161	\$ 252,661	\$ 259,161	\$ 265,911	\$ 272,661	\$ 279,911
Over/(Under) Reserve Target	\$ 1,685,595	\$ 1,669,972	\$ 1,248,038	\$ 869,849	\$ 491,175	\$ 76,589	\$ (368,207)	\$ (844,772)	\$ (1,353,169)	\$ (1,896,228)

Appendix C – Mission Creek Sub-basin Replenishment Fund Proforma – Recommended Financial Strategy⁴

	FY2015 Actuals	FY2016 Budget	FY2017 Forecast	FY2018 Forecast	FY2019 Forecast	FY2020 Forecast	FY2021 Forecast	FY2022 Forecast	FY2023 Forecast	FY2024 Forecast
Rate Revenue Increase	na	na	10.0%	10.0%	10.0%	10.0%	10.0%	3.0%	3.0%	3.0%
Rate (\$/AF)	\$99.94*	\$112.00	\$123.20	\$135.52	\$149.07	\$163.98	\$180.38	\$185.79	\$191.36	\$197.10
Groundwater Production	4,192	4,294	3,809	3,809	3,809	3,809	3,809	3,809	3,809	3,809
	* average rate based on actual revenue and sales									
Revenues										
Rate Revenue	\$ 418,942	\$ 480,928	\$ 469,269	\$ 516,196	\$ 567,815	\$ 624,597	\$ 687,056	\$ 707,668	\$ 728,898	\$ 750,765
Other Charges	819	-	-	-	-	-	-	-	-	-
Investment Income	38,147	18,068	16,739	13,829	11,258	9,062	7,181	5,432	3,604	1,693
Total Revenues	\$ 457,908	\$ 498,996	\$ 486,008	\$ 530,025	\$ 579,073	\$ 633,659	\$ 694,238	\$ 713,100	\$ 732,502	\$ 752,458
Operating Expenses										
Salaries, Wages, and Benefits	\$ 138,384	\$ 151,000	\$ 155,000	\$ 159,000	\$ 163,000	\$ 167,000	\$ 171,000	\$ 176,000	\$ 182,000	\$ 188,000
Supplies & Services	78,105	129,000	120,000	124,000	128,000	132,000	137,000	142,000	147,000	152,000
Utilities	745	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Water Purchases	57,272	179,000	508,000	519,000	519,000	537,000	554,000	571,000	587,000	605,000
Minor Capital Outlay	6,815	3,000	5,000	9,000	3,000	3,000	3,000	3,000	3,000	3,000
Total Operating Expenses	\$281,321	\$463,000	\$789,000	\$812,000	\$814,000	\$840,000	\$866,000	\$893,000	\$920,000	\$949,000
Net Revenues	\$ 176,587	\$ 35,996	\$ (302,992)	\$ (281,975)	\$ (234,927)	\$ (206,341)	\$ (171,762)	\$ (179,900)	\$ (187,498)	\$ (196,542)
Debt Service										
Debt Service Payments (existing)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Payments - (future)	-	-	-	-	-	-	-	-	-	-
Total Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Spending	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Proceeds	-	-	-	-	-	-	-	-	-	-
Cash-Funded Capital	-	-	-	-	-	-	-	-	-	-
One-time transfer from SWP Fund	-	-	-	-	-	-	-	-	-	-
Total Revenue Requirements	\$ 281,321	\$ 463,000	\$ 789,000	\$ 812,000	\$ 814,000	\$ 840,000	\$ 866,000	\$ 893,000	\$ 920,000	\$ 949,000
Revenues Over (Under) Expenses	\$ 176,587	\$ 35,996	\$ (302,992)	\$ (281,975)	\$ (234,927)	\$ (206,341)	\$ (171,762)	\$ (179,900)	\$ (187,498)	\$ (196,542)
Beginning Balance	\$ 1,621,232	\$ 1,797,819	\$ 1,833,815	\$ 1,530,823	\$ 1,248,848	\$ 1,013,921	\$ 807,580	\$ 635,817	\$ 455,917	\$ 268,419
Ending Balance	\$ 1,797,819	\$ 1,833,815	\$ 1,530,823	\$ 1,248,848	\$ 1,013,921	\$ 807,580	\$ 635,817	\$ 455,917	\$ 268,419	\$ 71,877
Reserve Target	\$ 112,224	\$ 163,843	\$ 239,911	\$ 245,661	\$ 246,161	\$ 252,661	\$ 259,161	\$ 265,911	\$ 272,661	\$ 279,911
Over/(Under) Reserve Target	\$ 1,685,595	\$ 1,669,972	\$ 1,290,912	\$ 1,003,187	\$ 767,760	\$ 554,919	\$ 376,656	\$ 190,006	\$ (4,242)	\$ (208,034)

⁴ The 3% rate increases starting in FY2022 are not a recommended rate increase, but rather an assumption that rates will be adjusted to match market inflation (assumed to be 3% in those years).